

Predictors of Better Attitude towards the Nigeria Alcohol Policy and Alcohol Consumption among Undergraduates in a Nigerian University

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ABSTRACT

Harmful use of alcohol is a modifiable risk factor contributing to the increasing burden of non-communicable diseases and deaths. In Nigeria, alcohol is the sixth leading risk factor contributing to most death and disability. The study determines the relationship between alcohol consumption and the attitude towards the Nigerian Alcohol Policies among undergraduates in Nigeria. Three hundred and thirty-nine undergraduates were selected. A cross-sectional descriptive method based on the Alcohol Use Disorders and Intervention Test, sets of questions on the knowledge, and attitude towards the Nigeria alcohol policy were used. Most of the respondents 262(77.3%) were ≤ 20 years, Christians 247(72.9%), males 172(50.7%), and 336(99.1%) are single. 168(49.5%) of the respondents had normal alcohol use while 148(43.7%) had a problematic use of alcohol, 59(17.4%) and 77(22.7 %) of the respondents had good knowledge and a better attitude towards the Nigerian alcohol policy respectively. More respondents who had a better attitude towards the alcohol policies were abstainers or light drinkers compared to respondents with poor attitudes ($p=0.027$). Also, students who were 20 and more years old had a better attitude towards the alcohol policies than respondents younger ($p<0.001$). In addition, Muslims and traditional worshippers had a better attitude than the Christian respondents. Finally, the odd of better attitude towards Nigerian alcohol policy was higher among females than males. Attitudinal change towards alcohol policies may reduce the harmful use of alcohol among undergraduates. There is therefore a need to promote attitudinal change towards the Nigerian alcohol policy because of the association of positive attitudes with less risky alcohol use.

Keywords: Alcohol Policy, Alcohol use, Attitude. knowledge, Undergraduates.



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INTRODUCTION

Harmful use of alcohol is a modifiable risk factor contributing to the increasing burden of non-communicable diseases and deaths.¹ In Nigeria, alcohol remains the sixth leading risk factor contributing to most death and disability.² The National Policy and Strategic Plan of Action on Non-Communicable Diseases that controls alcohol use in Nigeria contained six actions and proposed to limit the harmful use of alcohol. Specifically, they are to: discourage alcohol use among women, prevent underage alcohol consumption, discourage binge drinking with consumption of toxic local brew, prevent consumption of illegally brewed and distributed alcoholic beverages, prevent driving or operating machinery under alcohol influence, and identification and management of alcohol use disorders.

Alcohol is a social drug and widely accepted among the youth especially among undergraduates to cope with academic stress.³ Academic stress refers to the unpleasant situations that occur due to the many demands made on the students or learners in the form of examinations, maintaining healthy and academic lives, competing with peers, meeting the academic expectations of teachers and parents⁴⁻⁸.

Therefore, the possible effect of a better attitude towards the national alcohol policy may be essential towards possible prevention of excessive alcohol use.

The study aimed to determine the predictors of better attitude towards the Nigerian Alcohol Policies and the pattern of Alcohol consumption among undergraduates in Afe Babalola University Ado Ekiti, Ekiti State, Nigeria. The findings will be useful to determine the level of knowledge and the attitude towards the Alcohol policy among undergraduates in Afe Babalola University Ado Ekiti, Ekiti State, Nigeria, determine the pattern of Alcohol use among undergraduates of Afe Babalola University Ado Ekiti, Ekiti State, Nigeria., to determine the relationship between attitude towards the Nigerian alcohol policy awareness and alcohol use

among undergraduates in Afe Babalola University Ado Ekiti, Ekiti State, Nigeria and finally to determine the socio-demographic predictors of the undergraduates' attitude towards the Nigeria Alcohol policy.

MATERIALS AND METHODS

Study area and Study Population

The study was conducted in Afe Babalola University Ado Ekiti, a private residential university.

Cross-sectional descriptive method was used. The questionnaires were distributed by the researcher and the three research assistants (doctors in the Department of Psychiatry ABUAD Multisystem Hospital Ado Ekiti) who were trained by the researcher in the distribution and collection of the questionnaire. The questionnaire were self-administered and require an average of ten minutes to complete it

The criteria for inclusion were:

Undergraduate students in the Afe Babalola University
Undergraduates who gave informed consent

Sample Size Calculation

The sample size for this study was computed using the formula below⁹.

$$N = \frac{Z^2 pq}{d^2}$$

Where N= the desired sample size if the population is more than 10,000.

Z =the standard normal deviate usually set at 1.96 corresponding to a 95% confidence interval

p = the proportion in the target population estimated to have a particular characteristic 29.6%⁽¹⁰⁾.

q = 1 - p

d = degree of accuracy desired set at 0.05

Therefore P = 0.296 q = 1 - 0.296 = 0.704 d is set at 0.05

$$\text{Therefore } N = \frac{1.96 \times 1.96 \times 0.296 \times 0.704}{(0.05)^2} = 320$$

However, the study population is below 10,000, the true

sample size (nf) is estimated from the above, as follows: $nf = \frac{N}{1 + (N)/(n)}$

Where nf = the desired sample size when the population is less than 10,000.

N = the desired sample size when the population is more than 10,000

n = the estimate of the population size, with the value of 8,391, which is the population of students in the Afe Babalola University Ado Ekiti.

nf = 308.2 By adding a 10% (31) attrition rate the required sample size came to approximately 339.

Sampling Technique

Stratified random sampling method was used. The undergraduates were grouped into strata using their academic levels (100 to 600 levels) and the final participants were selected from each academic level using a proportionate distribution with simple random sampling through balloting. Having retrieved the students' class lists, each participant was approached before the lecture hours to explain the purpose of the study, give assurance of confidentiality, and explain the benefits of the study. Respondents that give informed consent were recruited. Each questionnaire was checked by the researcher and research assistances during submission for adequate completion. Using a cut-off point of 5 for AUDIT, students who scored 5 and above were regarded as having the possible risk of Alcohol use disorders, and those who scored <5, were regarded as not having the risk.

Ethical approval was obtained from the Ethics and Research Ethics Committee of the ABUAD Multisystem Hospital Ado Ekiti while written consent was obtained from participants.

Research Instruments

The questionnaire used contained a question on the following areas

The socio-demographic information

Alcohol Use and misuse. The Alcohol Use Disorders Identification Test (AUDIT) is a set of questions, developed by the WHO to screen for alcohol use; studies have shown its validity and reliability in the detection of problematic alcohol use such as hazardous drinking, harmful alcohol use, and alcohol dependence¹¹. The AUDIT scale consists of 10- items measured on a 4- point Likert format, with a total maximum score of 40¹². Nigerian studies found a sensitivity of 93.5% and specificity of 91.5 % for AUDIT while another study reported the sensitivity and specificity of 100% and 92.1% respectively^{13,14}.

In this environment, a score of 5 is recommended when screening for hazardous use, a score of 7 and 9 for harmful use and dependence respectively¹³. The respondents were initially classified as follows: Group I, score 0 as No alcohol use; Group II, score 1-4 as Normal use; Group III, score 5-6 as Hazardous use; Group IV, score 7-8 as Harmful use/Misuse; Group V, Score 9-40 as Dependent use. This was based on a validation study in Nigeria¹⁴. In this study respondents in Groups I and II were grouped as no/normal alcohol use while Groups III-V as problematic alcohol use.

(3) A set of questions on the knowledge, and attitude towards the Nigeria alcohol policy. The knowledge questions have a total score of fifteen. The knowledge and attitude questions were added respectively. Respondents that scored zero, below 50% of the total score (7.5) but greater than zero and above 50% of the total score (7.5) were a group of no knowledge, poor knowledge, and good knowledge respectively.

The attitude questions assessed the respondents' attitude towards the policy using the Likert scale strongly disagree, disagree, neutral, agree, and strongly agree, the item scored from one to five respectively marking a total score of 35. The respondent that scored below and above 50% of the total score (17.5) in the attitude questions were grouped as having poor and good attitudes respectively.

The Statistical Package for Social Sciences (SPSS

version 21) was used for data analysis. The socio-demographic details of respondents were reported using descriptive statistics such as frequency. Chi-square test and Logistic regression were performed to ascertain the effects of age, religion, tribe gender, academic level, stress related to academic and family history of alcohol use on the likelihood that participants have a better attitude towards the Nigerian Alcohol policy. The confidence interval will be set at 95%, $p < 0.05$.

RESULTS

Four hundred questionnaires were distributed while three hundred and thirty-nine were properly filled, the response rate was 84.75%. Most of the respondents 262(77.3%) were ≤ 20 years, Christians 247(72.9%), male 172(50.7%), and from Igbo ethnicity 236(69.6%), and 336(99.1%) were single (Table 1). One hundred and sixty-eight (49.5%) of the respondents had normal alcohol use using AUDIT (Fig 1) while 148(43.7%) of the respondents had problematic alcohol use (Fig 2). Fifty-nine (17.4%) and 77(22.7 %) of the respondents had good knowledge and a better attitude towards the Nigerian alcohol policy respectively (Fig 3, Fig 4).

Table 2 revealed that a significant proportion of respondents who were 20 years and above (48.1%, 37/77) had a better attitude towards the Nigerian alcohol policy than younger respondents. The difference was statistically significant. ($p < 0.001$). More Muslim respondents (44.1%, 30/68) had a good attitude towards Nigerian alcohol use than other religions. This difference was also statistically significant ($p < 0.001$).

Furthermore, more female respondents (43.1%, 66/161) had a good attitude towards the Nigerian alcohol policy use than the male, this was also statistically significant ($p < 0.001$). Additionally, respondents from Yoruba ethnicity (34.7%, 26/75) had a better attitude towards the use of Nigerian alcohol

policy than other tribes in this study. This was statistically significant ($p = 0.019$).

Respondents in their final academic years (41.7%, 15/36) also had a better attitude towards Nigerian alcohol policy than other academic levels. This was statistically significant ($p = 0.001$). Most of those who did not find their studies stressful (40.0%, 16/40) had a better attitude towards Nigerian alcohol policy than respondents who describe the study as stressful. The difference was statistically significant ($p = 0.009$).

In addition, respondents who were sponsored by parents (23.0%, 77/327) had a better attitude towards the Nigerian alcohol policy than respondents who were not sponsored by their parents and was found to be significant ($p = 0.043$). Respondents with no family history of alcohol use in the parent (34.2%, 27/77) had a better attitude towards Nigerian alcohol policy. This was statistically significant ($p = 0.009$).

A significant proportion of respondents with problematic alcohol use (46.9%, 123/262) had a poor attitude towards the use of alcohol than respondents with a better attitude using the Chi-square test. The difference was statistically significant ($p = 0.027$) while the association between the knowledge of the Nigerian alcohol policy and the alcohol use was not statistically significant. (Table. 3).

The logistic regression revealed that students aged 20 years and over were more positively associated with a better attitude towards the Nigerian Alcohol policy than respondents that were less than 20 years (AOR=6.41 $p < 0.001$). In addition, the odds of having a better attitude to the Nigerian Alcohol Policy was 3.02 fold increased among Muslims compared to Christians (AOR=3.02 $p = 0.014$), also traditional worshippers had about 6.73 fold increased odd of having a better attitude towards the Nigerian Alcohol Policy compared to Christians. (AOR=6.737, $p = 0.01$). In addition, the odd of better attitude towards Nigerian alcohol policy was 33.06 times increased among female than male. The observation was statistically significant (AOR=33.06 CI= 11.187-97.747) (Table 4).

Table 1. Socio-Demographics Characteristics of the Respondents (N=339)

Variable	Frequency	Percentage
Age		
< 20years	262	77.3
20years and above	77	22.7
Religion		
Christianity	247	72.9
Islam	68	20.1
Traditional worship	24	7.0
Gender		
Male	172	50.7
Female	167	49.3
Tribe		
Yoruba	75	22.1
Igbo	236	69.6
Hausa	28	8.3
Marital status		
Single	336	99.1
Married	3	0.9
Educational level		
Fresher	74	21.8
Intermediate	229	67.6
Final year	36	10.6
Academic performance		
Below average	13	3.8
Average	61	18.0
Above average	265	78.2
Have you failed any course?		
Yes	46	13.6
No	293	86.4
Have you repeated any level?		
Yes	13	3.8
No	326	96.2
In general do you find studies stressful?		
Yes	299	88.2
No	40	11.8
Source of finance		
Parent	327	96.5
Other family member	4	1.1
Self	8	2.4
Are you satisfied with your monthly income?		
Yes	138	40.7
No	201	59.3
Parent marital status		
Single	36	10.6
Married	274	80.8
Divorce/separated	7	2.1
Widow/widower	22	6.5
Family type		
Monogamy	303	89.4
Polygamous	36	10.6
Family history of alcohol use in parents?		
Yes	260	76.7
No	79	23.3
If yes, who among the parent?		
Father	233	73.3
Mother	15	4.4
Not applicable	79	23.3

Table 2. Association of Attitudes towards Alcohol Use with Socio-Demographic Characteristics of the Respondents (N=399)

Variable	Attitude towards alcohol		df	P-value
	Poor attitude n (%)	Good attitude n (%)		
Age				
20years and above	40(51.9%)	37(48.1%)	1	<0.001
<20years	222(84.7%)	40(15.3)		
Religion				
Christianity	205(83.0%)	42(17.0%)	2	<0.001
Islam	38(55.9%)	30(44.1%)		
Traditional worshipper	19(79.2%)	5(20.8%)		
Gender				
Male	167(97.1%)	5(2.9%)	1	<0.001
Female	95(56.9%)	66(43.1%)		
Tribe				
Yoruba	49(65.3%)	26(34.7%)	2	0.019
Ib	191(80.9%)	42(19.1%)		
Hausa	22(78.6%)	6(21.4%)		
Marital status				
Single	261(77.7%)	75(22.3%)	1	0.130
Married	1(33.3%)	2(66.7%)		
Level				
Fresher	66(89.2%)	2(10.8%)	2	<0.001
Intermediate	175(76.4%)	59(23.6%)		
Final year	21(58.3%)	15(41.7%)		
Academic performance				
Below average	17(84.6%)	2(15.4%)	2	0.751
Average	48(78.7%)	13(21.3%)		
Above average	203(76.6%)	62(23.4%)		
Have you failed any course?				
Yes	38(82.6%)	8(17.4%)	1	0.450
No	214(76.5%)	69(23.5%)		
Have you repeated any level?				
Yes	9(69.2%)	4(30.8%)	1	0.502
No	253(77.6%)	73(22.4%)		
Do you find your studies stressful?				
Yes	238(79.6%)	61(20.4%)	1	0.009
No	24(60.0%)	16(40.0%)		
Source of income				
Parent	250(76.5%)	77(23.5%)	2	0.043
Other family members	4(100.0%)	0(0.0%)		
Self	8(100.0%)	0(0.0%)		
Are you satisfied with your monthly allowance?				
Yes	109(79.0%)	27(21.0%)	1	0.598
No	148(76.1%)	48(23.9%)		
Parent marital status				
Single	27(75.0%)	8(25.0%)	3	0.077
Married	208(76.6%)	66(24.1%)		
Divorced/separated	7(100.0%)	0(0.0%)		
Widow/widower	20(90.9%)	2(9.1%)		
Family type				
Monogamy	236(77.9%)	67(22.1%)	1	0.537
Polygamy	26(72.2%)	10(27.8%)		
Any Family history of alcohol use in parents?				
Yes	210(80.8%)	46(19.2%)	1	0.009
No	50(65.8%)	27(34.2%)		
If yes, who among the parent?				
Father	195(79.6%)	50(20.4%)	2	0.006
Mother	15(100.0%)	0(0.0%)		
Not applicable	52(65.8%)	27(34.2%)		

Table 3. Association of Attitudes with Respondents Knowledge towards the Use of Alcohol (N=399)

Variable	Alcohol Uses among respondent		df	P-value
	Normal alcohol use n (%)	Problematic use n (%)		
Attitude				
Poor attitude	139(53.1%)	123(46.9%)	1	0.027
Good attitude	52(67.5%)	25(32.5)		
Knowledge				
No/poor knowledge	156(55.7%)	124(44.3%)	1	0.666
Good knowledge	35(59.3%)	24(40.7%)		

Table 4 Associations between Attitude towards the Nigerian Alcohol Policy and socio-demographic variables (N=399)

Variable	B	Old ratio	P-Value	Lower	CI Higher
Tribe					
Hausa (ref)	1	1			
Yoruba	0.204	1.226	0.801	0.215	5.992
Ibo	0.067	1.070	0.928	0.250	4.581
Religion					
Christian	1	1			
Islam	1.106	3.021	0.014	1.247	7.317
Traditional	1.908	6.737	0.010	1.570	28.914
Level					
Final year	1				
Fresher	-0.838	0.432	0.237	0.108	1.736
Intermediate	0.067	0.483	0.219	0.151	1.543
Gender					
Male	1	1			
Female	3.250	33.068	<0.001	11.187	97.747
Family History					
Alcohol					
No(ref)	1	1			
Yes	-20.902	0.504	0.081	0.233	1.089
Do you find studying stressful					
No (ref)		1			
Yes	1				
	-0.147	0.749	0.534	0.301	1.863
Age					
Age less than 20years	1	1			
Age above 20years	1.858	6.412	<0.001	2.881	14.273

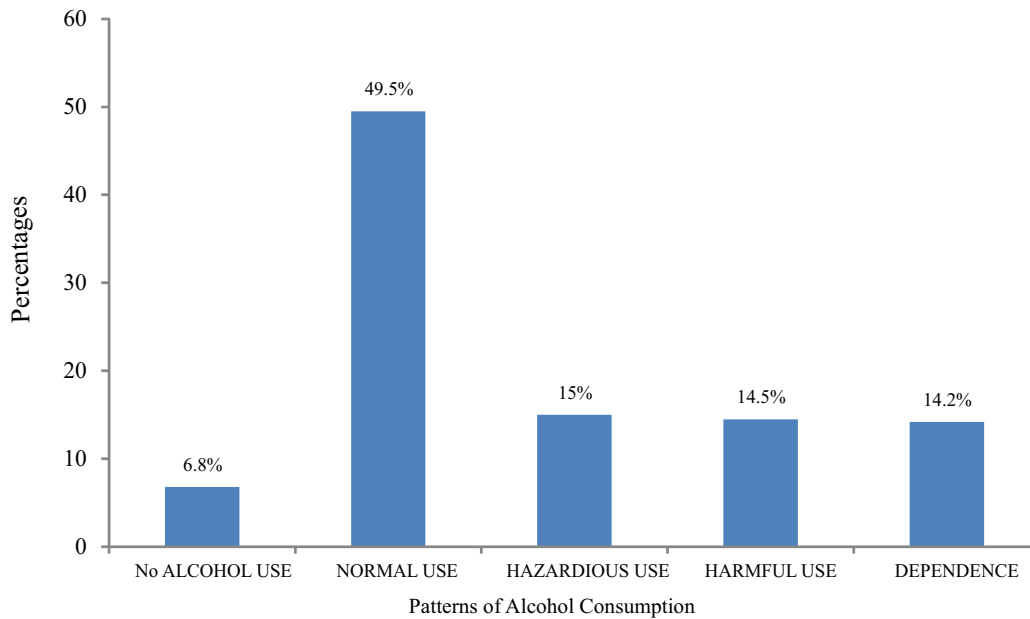


Figure 1. Patterns of Alcohol Use among the Respondents using AUDIT (N=339)

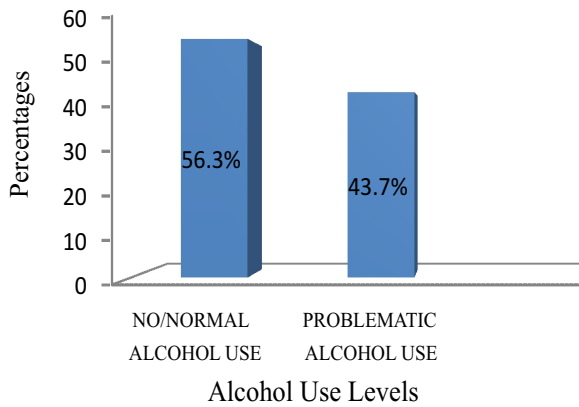


Fig 2. Levels of Alcohol Use among Respondents (N=339)

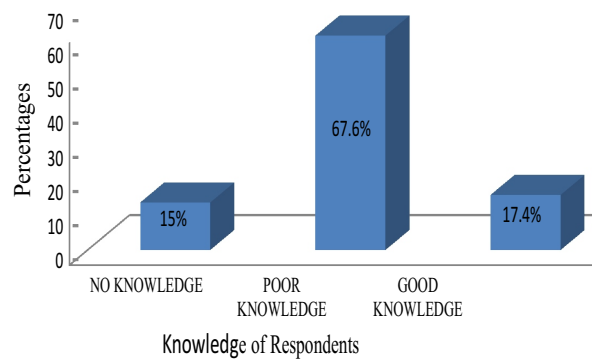


Fig 3. Patterns of the Respondent's Knowledge towards the Nigeria Alcohol Policy (N=339)

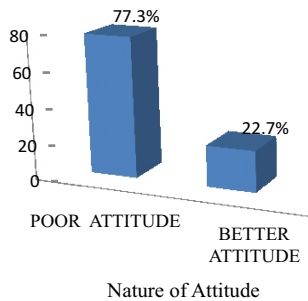


Fig 4. Attitudes of the Respondents towards the Nigerian Alcohol Policy (N=339)

DISCUSSION

The mean age in this study sample (18 ± 1.4 years) was slightly lower than 22 years and 23.6 years, among undergraduates in the public university in the northwestern and southwestern part of Nigeria respectively.¹⁵ It was also lower than 23.5, 21.85, and 21.5 years among undergraduates previously recorded in the private Nigerian universities¹⁶⁻¹⁸. The reduction

of the age may be a new pattern among undergraduates in the private university and also compared with the public university. Civilization and the early quest for knowledge among parents may be responsible for this observation. However further studies will be required to further substantiate the trend. Despite these available facilities in the private institution, a significant proportion of the respondents considered academics stressful, despite describing themselves as above average. The psychological perception of academics is important to the outcome and the mental well-being of individuals. Most of the respondent's parents especially their fathers drank alcohol. Alcohol is a socially acceptable psychoactive substance however excessive use may result in disability. Studies have reported that family history of alcohol use disorder is a risk factor for hazardous drinking and the development of Alcohol Use Disorders¹⁹⁻²⁰. Adolescent alcohol consumption is an issue of ongoing concern, and programs targeting parents have been identified as an important component in minimizing and preventing alcohol-related harm in adolescents²¹. Indeed, parenting remains one of the most important social influencers in preventing and reducing adolescents' alcohol consumption²². Among the respondents, problematic alcohol use (43.7%) is a reason of major concern. This was higher than ever and the current use of alcohol of 43.5% and 31.1%, respectively among undergraduates in the North-central part of Nigeria²³, 14.9% alcohol-related problems among undergraduates in southwestern Nigeria²⁴. This observation may result from the use of alcohol as a coping mechanism because of the current socio-economic instability in the country. Compared to findings from another African country (Ethiopia) where a similar study was done, 11.4% of the respondents had problematic alcohol users of which 6.8% and 4.6% had high-level problems and medium-level problems respectively²⁵. Regarding the knowledge and attitude towards the Nigerian alcohol policies less than a quarter (17.4%) of the respondents

showed a good level of knowledge this was lower than 83.3% of the Nigerian medical students who reported overall good knowledge about alcohol. This level of knowledge was expected considering their level of education and the course they are studying.²⁶ The knowledge of the Nigerian Alcohol policy among undergraduates remains generally low. This may be due to the reduction in the awareness campaign by stakeholders and the marketing activity of the alcohol industry to promote their product. The alcohol industry has existed for many years but become more aggressive since the World Health Assembly and World Health Organization began the move to reduce alcohol-related harms through policies. It can be argued that the primary motives of these brewers are to market their products, increase profit and maintain a good image at the expense of the policy. The attitude of the respondents towards the policy may be generally described as poor. This may have a significant impact on alcohol use in the country. Public support for policies varies but can be an important influence on political decision-making in terms of which policies are supported by governments²⁷. Negative public attitudes around a policy may lead to the government withdrawing its support, as was partly the case for minimum unit pricing in England²⁸, and may also lead to problems with implementation and adherence²⁹. In general, attitudes contribute to determining behaviors and relationships. Respondents with a poor attitude to Nigerian alcohol have a higher problematic alcohol use compared to respondents with a better attitude towards the policy. Similarly, among students in Norway, a study reported that the student's attitude toward heavy alcohol use was a stronger predictor of drinks per week, binge frequency, as well as alcohol-related problems when directly compared to norms³⁰. Two major influences on attitudes are direct experience and social learning. Research has shown that attitudes that are derived from direct experience are stronger, are held more confidently, and are more resistant to change, than are attitudes formed through indirect experience³¹.

The study shows that being 20 years and older, Muslims, traditional worshippers, and females were predictors of a better attitude to the Nigerian alcohol policy. Older respondents might have the opportunity to understand the alcohol policy more through personal experience or observation of the negative complication of alcohol use from others. This experience might have improved their attitude about the alcohol policy³²⁻³⁵. Religion is a distinctive factor in alcohol consumption and alcohol policies³⁶. Islamic countries have a strong alcohol policy and this may probably be related to lower alcohol consumption³⁷. However, considerable variations exist in the extent to which the Islamic view on alcohol use is represented in alcohol policies³⁸. Following alcohol prohibition as one of the core teachings of Islam. Traditional worshippers have specific rules and regulations guiding alcohol use. This may positively influence their attitude toward Nigerian alcohol policy. Female respondents were predictors of better alcohol attitudes in this study. The cultural non acceptance nature of alcohol use by Nigerian women may positively influence their attitude towards the policy. The obvious complication of alcohol use among women and the recent campaign of the Ministry of Women Affairs targeting women and girls alone both at the national and state level might also be responsible for a better attitude towards the alcohol policy.

Limitation

The study is a cross-sectional and descriptive one, thus assertions cannot be made concerning cause and effect. The questionnaire method assumes that the respondent will answer each question truthfully. However, this assumption may not hold in all cases. Despite this limitation, the study is the first to examine the relationship between attitude to alcohol policy and alcohol consumption among Nigerian young people, it can provide some insights into the topic, especially for the African countries.

CONCLUSION

Respondents with problematic alcohol use showed a poor attitude to the Nigerian Alcohol Policy while respondents who were 20 years and more, muslims, traditional worshippers, and females were predictors of a better attitude to the Nigerian alcohol policy. Despite the level of literacy of the respondents' knowledge and attitude towards the alcohol policy, the positive attitude towards was still low.

Recommendations

In respect to the significant relationship between alcohol consumption and policy we recommend that drug education and practical attitudinal change courses should be included in the academic curriculum. Special attention should be given to males and young adolescents because they are at risk of heavy alcohol use. Finally, relevant stakeholders in the field of the Nigeria Alcohol policy should involve religious leaders and religious groups to promote the Nigerian alcohol policy.

Conflict of Interest

All authors of this paper declare that there is no conflict of interest related to the content of this manuscript.

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