



FACTORS ASSOCIATED WITH INTENTION TO USE ALCOHOL AMONG IN-SCHOOL ADOLESCENTS IN ADO-ODO/OTA, OGUN STATE, NIGERIA

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ABSTRACT: ***Introduction:** Understanding the factors that contribute to an individual's intention to use alcohol is crucial in developing effective prevention and intervention strategies. Hence, this study investigated the various factors that influence the intention to use alcohol among in-school adolescents. **Methodology:** A multistage probability sampling method was adopted to select the schools in Ado-Odo/Ota Local Government Area. **Result:** More than half, 227 (53.7%) of the respondents had a high level of knowledge regarding alcohol consumption; majority, 255 (60.3%) of the respondents had a negative attitude towards alcohol consumption. Majority, 309 (73.0%) of the respondents had a negative subjective norm; majority, 308 (72.8%) of the respondents had poor intentions towards alcohol consumption. **Conclusion:** The result showed that respondents' families, friends, media, and environment contributed immensely to respondents' intention to use alcohol. Insufficient knowledge, attitude, and subjective norms (such as family, friends, media, and environment) all played a role in respondents' intention to consume alcohol in the future.*



INTRODUCTION

Alcohol consumption is a prevalent and socially accepted behavior in many cultures. However, excessive and irresponsible alcohol use can lead to negative consequences, such as health issues, impaired judgment, and social problems (Amman, 2016). Understanding the factors that contribute to an individual's intention to use alcohol is crucial in developing effective prevention and intervention strategies.

Individuals who possess knowledge regarding the detrimental health consequences of excessive alcohol use, including but not limited to liver damage, cardiovascular complications, addiction, and cognitive decline, are more inclined to acknowledge the possible risks connected with alcohol use (NIAAA, 2016). This heightened awareness of the negative consequences aligns with informed decision-making. Such individuals tend to prioritize their well-being and long-term health, which influences their intention to use alcohol. The recognition of the potential health consequences associated with alcohol consumption compels individuals to weigh the potential dangers against the immediate advantages, leading to a reduced inclination to partake in problematic alcohol usage (Giletta, 2017).

Psychosocial factors such as attitudes towards alcohol, including beliefs about its effects, perceived benefits, and risks, have been consistently linked to intention to use alcohol (Henry & Kitaka, 2019). Positive attitudes towards alcohol, such as perceiving it as a means to relax or enhance social interactions, increase the likelihood of intention to use alcohol. Social norms, both descriptive (perceived behavior of others) and injunctive (perceived approval or disapproval of others), significantly influence an individual's intention to use alcohol (Hatzenbuehler, Keyes, & Hasin, 2009). If an individual perceives that their peers or society at large endorse alcohol use, they are more likely to intend to use alcohol themselves.

Peer influence plays a crucial role in shaping an individual's intention to use alcohol. Friends and peer groups that engage in alcohol use can exert pressure on individuals to conform to their behavior. Peer approval and acceptance are often strong motivators for alcohol use intention. Parental attitudes, behaviors, and communication about alcohol use significantly impact an individual's intention to use alcohol. Parental permissiveness, modeling of alcohol use and lack of open communication about the risks associated with alcohol can contribute to higher intention to use alcohol.

Psychological factors such as personality traits, certain personality traits, such as sensation-seeking, impulsivity, and low self-control, have been consistently associated with higher intention to use alcohol. According to Adekunle et al. (2020), individuals with these traits may be more inclined to seek out novel and exciting experiences, including alcohol consumption. Alcohol use may be seen as a coping mechanism to deal with stress, negative emotions, or social anxiety. Individuals who perceive alcohol as an effective means of coping are more likely to have an intention to use alcohol. Each individual has their own set of preconceived notions about how much of an impact alcohol will have on their emotions, cognition, and social interactions. Positive alcohol expectancies, such as increased confidence or reduced inhibitions, can influence an individual's intention to use alcohol.

Environmental factors, such as the availability and accessibility of alcohol, have a significant impact on an individual's intention to use it (Wysokińska & Kołota, 2022). Easy access to alcohol, such as through social events, bars, or retail stores, increases the likelihood of intention



to use alcohol. Media plays a crucial role in shaping societal norms and attitudes towards alcohol. According to a study conducted by Ukwaiyi et al. (2016), the exposure to alcohol-related content in various forms of media, including ads and depictions of alcohol use in films, has the potential to impact an individual's inclination to engage in alcohol use.

People who have a family history of alcohol abuse or addiction are more likely to develop a problem with alcohol themselves (Boden & Fergusson, 2018). Depression and anxiety may lead to alcohol misuse. Stress and peer pressure may also cause alcohol consumption (Espada, 2019). People who are going through difficult times, such as a divorce or the loss of a job, may turn to alcohol as a way to cope. Similarly, people who are surrounded by friends or family members who drink heavily may be more likely to engage in problematic drinking themselves (Giletta, 2017).

Alcohol abuse can also lead to alcohol dependence, a condition characterized by a physical and psychological need for alcohol. People who are dependent on alcohol may experience withdrawal symptoms such as shaking, sweating, and seizures when they try to quit drinking (Henry & Kitaka, 2019). Young people's familiarity with and perception of alcohol is a major contributor to the problem. Students who are better informed on the dangers of alcohol misuse are less likely to partake in dangerous drinking practices, according to the available research (Henry & Kitaka, 2019). Furthermore, pupils who have a favorable outlook on alcohol are more likely to begin drinking at a younger age and to drink more often (Kimbui & Obadia, 2018).

Given the possible long-term implications of alcohol consumption among secondary school students, this knowledge gap is especially troubling. A number of studies have looked at what children in high school know and think about alcohol (Giletta, 2017). Anderson et al. (2015), for instance, observed that students who were better informed on the dangers of alcohol use were less likely to partake in dangerous drinking practices. Positive views regarding alcohol were also associated with earlier onset and higher drinking among college students (Kimbui & Obadia, 2018).

Additionally, Smith et al. (2017) investigated how British secondary school children felt and thought about alcohol. Those students who had more favorable perceptions of alcohol use also showed greater propensity for unsafe drinking practices. According to Adekoya et al. (2018), students' familiarity with and opinions about alcohol are crucial factors in the decision to drink. More study is required, however, to determine how exactly this population's knowledge and attitudes affect their intention to consume alcohol. Secondary school students who drink alcohol risk a number of negative outcomes. Heavy drinkers among young people, for instance, are more likely to have unfavorable effects (NIAAA, 2016). Heavy drinkers among youngsters are also more likely to engage in other potentially harmful activities including sexual activity without protection, violence, and DUI (NIAAA, 2016).

Given the potential for long-term impacts of alcohol-related disorders, this is of utmost concern (NIAAA, 2016). The prevalence of alcohol addiction among secondary school students is a serious concern, but there are a number of measures that may be used to help. School-based teaching programs, for instance, have been found to be helpful in raising students' awareness of the dangers of alcohol use and decreasing their own consumption (Homman & O'Neill, 2019). Young people's alcohol usage may be lowered with the help of parental participation and oversight (Kimbui & Obadia, 2018).



Intention to use alcohol among secondary school pupils is also on the rise in Nigeria. Adekoya et al. (2018) performed a survey and discovered that approximately one-third of secondary school pupils in Nigeria reported using alcohol during the previous month. Students who knew more about the dangers of drinking responsibly were also less likely to participate in dangerous drinking behaviors, according to the research. Yet, the survey also revealed that secondary school students in Nigeria had generally favorable views about alcohol, with many students perceiving drinking as a way to socialize and fit in with classmates. Olajide et al. (2020) conducted a research on alcohol usage and its determinants among Nigerian secondary school students. Students who understood the dangers of excessive drinking were less likely to partake in such activities, the research revealed. Students who had more favorable views of alcohol use also showed increased vulnerability to alcohol-related harm. Parental monitoring and drinking behaviors predicted secondary school alcohol use in Nigeria. These studies provide evidence that, as is the case in the United States, secondary school pupils' alcohol use is significantly influenced by their familiarity with and opinions about alcohol.

METHODOLOGY

Study Design

This study utilized a descriptive cross-sectional method. This involved collecting data from a sample of in-school adolescent participants from different schools, allowing researchers to gather information about various factors of interest simultaneously. This design is advantageous for obtaining a broad overview of the relationships, patterns, and variables of interest among the study's participants.

Study Area

This research covered Ogun State's Ado-Odo/Ota LGA. This is the second largest LGA in Ogun State, Southwest Nigeria. Ado-Odo/Ota LGA is expanding. Its varied population of 650,000 lives on 1,038 square kilometers. The selection of Ado-Odo/Ota Local Government Area (LGA) as the study area is based on its strategic geographical position, substantial population, and a notable incidence of alcohol misuse among the youth in this region. Moreover, Ogun State ranks among the top 10 states in Nigeria with a significant rate of alcohol consumption. The area is characterized by a mix of urban and rural settlements, with several secondary schools, markets, and social amenities. The area is also known for its vibrant cultural heritage, with a significant population of Yoruba people, who are renowned for their rich cultural practices. This research surveyed Ado-Odo/Ota LGA secondary school pupils. The LGA boasts a diverse array of educational institutions, including 133 public nursery and primary schools, 243 private nursery and primary schools, 167 private secondary schools, 19 public secondary schools, 8 combined public schools, 3 private universities, 2 private polytechnics, 1 public polytechnic, and 1 private College of Education. Selected secondary schools will provide the sample population. See Figure 3.1 for details for the map of the study area.

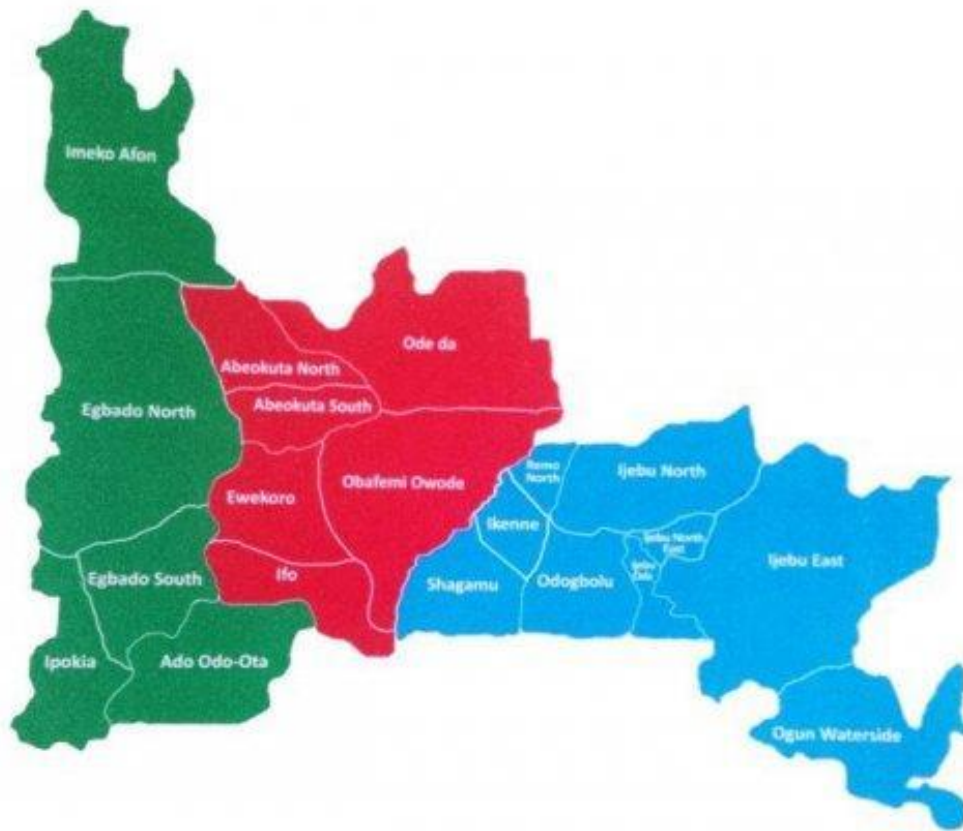


Figure 3.1: Map showing study area Ado-Odo/Ota LGA Ogun State

Source: Olamide et al. (2018)

Study Population

This study included male and female secondary students from Ota High School, Ado-Odo/Ota Grammar School and Igbesa High School chosen to represent Ado- Odo/Ota LGA schools in the research for numerous reasons. The total population of the study was 4,589 students, with Ota High School having the largest population of 2,089 students, followed by Ado-Odo/Ota Grammar School with 1,323 students, and Igbesa High School with 1,177 students.

Sample Size

The sample size for this study is calculated using the Cochran's formula (1977) below:

$$n_o = \frac{Z^2 pq}{e^2}$$

where,

n_o = sample size

e^2 = margin of error

p = estimated proportion of the population



Z = value of statistical parameters that depends on the confidence level

$$n_0 = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2}$$

$$= 385$$

Note: 10% was added to sample size to account for loss due to non-response or incomplete questionnaire.

$$= 385 + 39 = 423$$

Sampling Technique

A multi-stage sampling procedure will be utilized for this study.

Stage 1: Selection of schools within the Ado-Odo/Ota Local government area in Ogun State. Public secondary schools were selected for this research because of their large number of participants and because the majority of the in-school adolescents attending these schools are indigenous to the local government area. There are 16 wards in this local government and 19 public secondary schools in Ado-Odo/Ota Local Government Area.

Stage 2: Purposive sampling technique was utilized to select the 3 largest secondary schools from the wards of Ado-Odo/Ota LGA.

The local government education department was approached to obtain the list of all secondary public schools in Ado-Odo/Ota Local Government Area. There are 16 wards in Ado-Odo/Ota. Each ward has 1–2 public secondary schools. Firstly, the schools were selected based on their location within the study area and their population size from different wards in Ado-Odo/Ota, Ogun State, Nigeria. The schools were initially chosen according to their respective wards, with each ward having a representation of one to two public secondary schools. The study necessitates the inclusion of both genders; consequently, schools of a single gender were not to be part of the study. Furthermore, the selection process was influenced by the student population of each school. Table 3.1 shows the list of public secondary schools and their wards.

Table 3.1: List of Public Secondary Schools in Ado-Odo/Ota LGA

S/N	LIST OF PUBLIC SECONDARY SCHOOLS	WARD
1	AUD COMPREHENSIVE COLLEGE OTA	OTA II
2	ANGLICAN GRAMMAR SCHOOL OTA	OTA I
3	IGANMODE GRAMMAR SCHOOL OTA	OTA II
4	AUD COMPREHENSIVE HIGH SCHOOL LAFENWA	OTA III
5	AUD COMPREHENSIVE HIGH SCHOOL ITELE	ILOGBO
6	SANGO OTA HIGH SCHOOL, SANGO OTA	SANGO
7	UNITY HIGH SCHOOL IJOKO	IJOKO
8	IROKO COMMUNITY HIGH SCHOOL ABULE IROKO	IJOKO
9	IJU EBIYE HIGH SCHOOL	IJU
10	COMMERCIAL HIGH SCHOOL ATAN	ATAN
11	AJOGBO GRAMMAR SCHOOL, AJIBODE OTA	OTA



12	ADO/ODO HIGH SCHOOL, ADO ODO	ADO ODO II
13	ALAMUWA GRAMMAR SCHOOL, ADO ODO	ADO ODO II
14	COMMUNITY HIGH SCHOOL ALAPOTI	ALAPOTI
15	AGBARA COMMUNITY HIGH SCHOOL, AGBARA	AGBARA
16	IGBESA HIGH SCHOOL, IGBESA	IGBESA
17	MALE COMPREHENSIVE HIGH SCHOOL, IGBESA	IGBESA
18	UNITY HIGH SCHOOL, KAJOLA IGBORO	ATAN
19	ST. STEPHEN'S COMPREHENSIVE HIGH SCHOOL	ADO - ODO I

The three wards selected were Sango, Igbesa and Ado-Odo II for this study due to the dense population of people in the area. Ota High School, Ado-Odo/Ota Grammar School, and Igbesa High School are prominent schools within the study area, and they have diverse student populations from different wards that provide a representative sample of in-school adolescents in the study area.

The schools were selected based on their sizes and populations. Sango Ota High School has the largest student population in the study area with 2,089 students in secondary school, followed by Ado-Odo/Ota High School with 1,323 students, and Igbesa High School with 1,177 students. The large student population of these schools provides a significant sample size for the study, which increases the generalizability of the study findings. Table 3.2 shows the list of the selected schools for this study.

Table 3.2: List of Selected Secondary Schools in Ado-Odo/Ota LGA

S/N	LIST OF SELECTED SCHOOLS	POPULATION
1	SANGO OTA HIGH SCHOOL	2089
2	ADO-ODO/ OTA HIGH SCHOOL	1323
3	IGBESA HIGH SCHOOL	1177

Finally, willing schools were chosen for the research. After contacting various schools in the research region, three agreed to participate, allowing the study to proceed. Location, population size, and willingness to participate determined the study's schools. These factors ensure that the study findings are representative of the in-school adolescent population in the study area and can provide valuable insights into the factors associated with the intention to use alcohol among in-school adolescents in Ado-Odo/Ota, Ogun State.

Stage 3: Proportional sampling technique was used to determine the sample size for each school.

The appropriate number of samples from each of the chosen secondary schools was chosen from JSS1 to SS3. Several students were chosen representing each school proportionately to various classes. This approach ensured that the sample selected accurately represented the diverse characteristics of the secondary school population while maintaining proportionality. Table 3.3, Table 3.4, and table 3.5 show the participants of the selected secondary schools with their sample proportions using the formula below:

Formula:

$$n = \frac{\text{number of students in each class}}{\text{total number of students in school}} \times \text{sample size}$$

Stage 4: Simple random sampling was utilized to select the students from each class in the schools.

Using the school register for each arm of classes in the school, in-school adolescent respondents were picked from each class using a simple random sampling technique.

Table 1.3: Participants in Sango Ota High School

S/N	CLASS	TOTAL NUMBER OF STUDENTS	SAMPLE
1	JSS1	375	34
2	JSS2	382	35
3	JSS3	371	34
4	SS1	351	32
5	SS2	347	31
6	SS3	263	24
	TOTAL	2089	190

Table 3.2: Participants in Ado-Odo/Ota High School

S/N	CLASS	TOTAL NUMBER OF STUDENTS	SAMPLE
1	JSS1	219	20
2	JSS2	223	21
3	JSS3	228	21
4	SS1	230	21
5	SS2	210	19
6	SS3	215	20
	TOTAL	1323	122

Table 3.3: Participants in Igbesa High School

S/N	CLASS	TOTAL NUMBER OF STUDENTS	SAMPLE
1	JSS1	242	23
2	JSS2	217	20
3	JSS3	166	16
4	SS1	194	18
5	SS2	168	15
6	SS3	198	19
	TOTAL	1177	111



Instrument for Data Collection

A self-structured 25-item questionnaire was used in data collection for this research study. The instrument was structured and designed in accordance with the conceptual framework to effectively meet the objectives as well as answer the research questions. The questionnaire was divided into five (5) sections; they include demographics characteristics, knowledge, attitude, subjective norms, and intention.

Validity of the Instrument

The instrument was constructed by the researcher and given to the supervisors to examine the face and content validity. The corrections and changes made were affected. Also, inputs were obtained from two experts in Public Health. The importance of all these was to ensure that the instrument measured what it was supposed to measure.

Reliability of the Instrument

To ascertain the reliability of the instrument, a pilot study was done. After the pilot study, the questions were fine-tuned by removing the ambiguous ones. The result of the pre-test was used to improve the quality of the questionnaire. The questionnaire's reliability was thus assessed using Cronbach alpha test and a reliability coefficient of 0.77 was obtained.

Method of Data Collection

The process of data collection is of critical importance to the success of any research study. Without high quality data collection techniques, the accuracy of the research conclusion is easily challenged. Therefore, the data gathering procedure involved a trained research assistant who would also read out the questionnaires in English; a letter of consent was presented to the respondents to sign before administering the survey instrument. The purpose and contents of the questionnaire were explained to the respondents stating the fact their identities would not be disclosed.

Method of Data Analysis and Presentation

Data Analysis Method

The data collected were analyzed in IBM SPSS Statistics version 23 (IBM Co., Armonk, NY, USA), while Microsoft Excel (Ms Excel 2010) was used for chart drawings. Preliminary data analysis included using descriptive techniques for the construction of frequency distribution tables which were expressed as a percentage of the distribution. Graphical charts such as pie chart and bar chart were also used to represent some of the distributions. Mean scores were calculated on scaled data. The knowledge was classified as good knowledge or poor knowledge based on the answers they gave to the questions. The summary of the knowledge was obtained as an average to the knowledge scores.

In terms of attitude, a four-point Likert scale (Strongly Disagree, Disagree, Agree and Strongly Agree) was used to obtain information, of which points were assigned ranging from 1 for Strongly Disagree to 4 for Strongly Agree. The points were used to multiply by the frequency obtained in each item, and the mean scores were computed. In terms of Perception, a four-point Likert scale (Strongly Disagree, Disagree, Agree and Strongly Agree) was used to obtain information, of which points were assigned ranging from 1 for Strongly Disagree to 4 for



Strongly Agree. The points were used to multiply by the frequency obtained in each item, and the mean scores were computed.

Ethical Consideration

A copy of the research proposal and the questionnaire was submitted to Babcock University's Health Research Ethics Committee. An informed consent was administered to every respondent filling the questionnaire.

Confidentiality: The researcher assured the respondents' confidentiality. The survey instrument did not require the participants to write their names, addresses or any other important information.

Coercion: The participants answered the questions asked in the questionnaire out of their own volition and were not compelled to do so. They could withdraw from the exercise whenever they did not wish to continue. The importance of the participants to the study was made clear to them, including the purpose of the research, methods, and benefits of participating, but the ultimate decision to participate was left entirely to them to make without pressure of any kind.

Privacy: Privacy was ensured while the respondents filled the questionnaires.

RESULT AND DISCUSSIONS OF FINDINGS

Table 1: Respondents' Socio-demographic Characteristics

Socio-demographic variables for consideration	Respondents in the study N = 423	
	Frequency (n)	Percentage (%)
Age in years		
Mean age 16.14±1.15		
14-16	281	66.4
17-19	142	33.6
Gender		
Male	280	66.2
Female	143	33.8
Ethnicity		
Hausa	84	19.9
Igbo	114	27.0
Yoruba	225	53.2
Religion		
Christianity	252	59.6
Islam	171	40.4
Class		
JSS1	28	6.6
JSS2	56	13.2
JSS3	56	13.2
SS1	111	26.2
SS2	86	20.3
SS3	86	20.3

Respondents' Socio-demographic Characteristics



As shown in Table 1 above, the result of the analysis revealed that the respondents were between the ages of 14 and 19, with a mean age and standard deviation of 16.14 ± 1.15 . The majority 280 (66.2%) of the respondents were males. More than half of the respondents were Yorubas, 225 (53.2%) and of the Christian faith, 252 (59.6%). The respondents cut across all the classes, with over a quarter, 111 (26.2%) of the respondents in SS1.

Table 2: Respondents' Knowledge Regarding Alcohol Consumption

Knowledge variables for consideration	Respondents in the study N = 423	
	Yes F (%)	No F (%)
I know about the long-term consequences of excessive alcohol consumption.	199(47.0)	224(53.0)
There are risks associated with driving under the influence of alcohol.	225(53.2)	198(46.8)
Drinking alcohol interferes with daily responsibilities and obligations.	255(60.3)	168(39.7)
Long term effect of alcohol can affect your organs negatively.	199(47.0)	224(53.0)
Excessive alcohol use can cause anxiety and depression.	228(53.9)	195(46.1)

Respondents' Level of Knowledge Regarding Alcohol Consumption

As shown in Table 2 above, the result of the analysis regarding respondents' level of knowledge revealed that more than half, 224 (53.0%) of the respondents did not know the long-term consequences of excessive alcohol consumption. The result of the analysis also revealed that more than half, 225 (53.2%) of the respondents knew the risk associated with driving under the influence of alcohol. The result of the analysis further revealed that most, 255 (60.3%) of the respondents affirmed that drinking alcohol interferes with daily responsibilities and obligations. However, less than half, 119 (47.0%) of the respondents knew that the long-term use of alcohol could affect the organs negatively. More than half, 228 (53.9%) of the respondents knew that excessive alcohol use can cause anxiety and depression.

Table 3: Respondents' Knowledge Categorization

Respondents' level of knowledge measured on a 5-points rating scale	Frequency (n)	Percentage (%)
Low (0-2.49)	196	46.3
High (2.5-5.0)	227	53.7
Mean \pm SD	2.61 \pm 1.79	

Respondents' Knowledge Categorization

As shown in Table 3 above, the result of the analysis revealed that the respondents' level of knowledge was measured on a 5-point rating scale and divided into low and high. The result revealed that the knowledge mean score was 2.61 ± 1.79 . More than half, 227 (53.7%) of the respondents had a high level of knowledge regarding alcohol consumption.

**Table 4: Respondents' Attitudinal Disposition Towards Alcohol Consumption**

Attitude variables for consideration	Respondents in the study N = 423			
	SD F (%)	D F (%)	A F (%)	SA F (%)
I think that using alcohol can have detrimental effects on health and well-being.	172(40.7)	55(13.0)	-	196(46.3)
I consider alcohol consumption to be socially acceptable and enjoyable.	172(40.7)	55(13.0)	-	196(46.3)
I view alcohol as a means to relax and unwind from stress.	83(19.6)	144(34.0)	-	196(46.3)
I perceive alcohol as a harmful substance that should be avoided.	83(19.6)	144(34.0)	-	196(46.3)
I believe that alcohol consumption is a negative behaviour.	56(13.2)	115(27.2)	84(19.9)	168(39.7)

Respondents' Attitudinal Disposition Towards Alcohol Consumption

As shown in Table 4 above, the result of the analysis regarding respondents' attitudes towards alcohol consumption revealed that less than half, 196 (46.3%) of the respondents strongly agreed that consuming alcohol can have detrimental effects on health and wellbeing. Less than half, 172 (40.7%) of the respondents strongly disagreed that consumption of alcohol is socially acceptable and enjoyable. A few, 28 (6.6%) of the respondents refuted the notion that consumption of alcohol is a means to relax and unwind from stress. Less than half, 196 (46.3%) of the respondents strongly affirmed that alcohol consumption is harmful and should be avoided. Similarly, less than half, 168 (38.7%) of the respondents were of the strong opinion that alcohol consumption is a negative behaviour.

Table 5: Respondents' Attitude Categorization

Respondents' attitude measured on a 10-point rating scale	Frequency (n)	Percentage (%)
Negative	255	60.3
Positive	168	39.7
Mean \pm SD	3.99 \pm 2.03	

Respondents' Attitude Categorization

As shown in Table 5 above, the result of the analysis revealed that the respondents' attitudinal disposition was measured on a 10-point rating scale and divided into negative (0–4.9) and positive (5.0–10). Respondents' attitudinal disposition mean score was 3.99 \pm 2.03. The result of the analysis revealed that the majority, 255 (60.3%) of the respondents had a negative attitude towards alcohol consumption.

**Table 6: Respondents' Subjective Norm Regarding Alcohol Consumption**

Subjective norm variables for consideration	Respondents in the study N = 423			
	SD F (%)	D F (%)	A F (%)	SA F (%)
I sometimes feel pressured by my peers to consider using alcohol.	28(6.6)	87(20.6)	112(26.5)	196(46.3)
I do not care about what my peers think of alcohol use.	-	143(33.8)	-	280(66.2)
Observing my parents' responsible alcohol consumption has influenced my own intention to use alcohol.	142(33.6)	57(13.5)	28(6.6)	196(46.3)
I don't pay attention to my parents' alcohol consumption.	83(19.6)	28(6.6)	112(26.5)	200(47.3)
Seeing alcohol use depicted positively in the media makes me more likely to intend to use alcohol.	28(6.6)	28(6.6)	-	367(86.8)
Easy access to alcohol through social events, bars, or retail stores, as shown in media, impacts my intention to use alcohol.	83(19.6)	144(34.0)	-	196(46.3)

Respondents' Subjective Norm Regarding Alcohol Consumption

As shown in Table 6 above, the result of the analysis regarding respondents' subjective norm revealed that less than half, 196 (46.3%) of the respondents sometimes feel pressured to consider using alcohol. The majority, 280 (66.2%) of the respondents reported that they do not care about what their peers think of alcohol. Less than half, 196 (46.3%) of the respondents strongly affirmed that observing their parents' alcohol consumption had influenced their own intention to use alcohol, while less than half, 200 (47.3%) strongly claimed that they do not pay attention to their parents' alcohol consumption. The result of the analysis further revealed that the majority, 367 (86.8%) of the respondents argued that seeing alcohol use depicted positively in the media makes them more likely to use alcohol, while close to half, 196 (46.3%) of the respondents strongly concurred that easy access to alcohol through social events, bars, or retail stores, or as shown in the media, may impact their intention to use alcohol.

Table 7: Respondents' Subjective Norm Categorization

Respondents' subjective norm measured on a 12-point rating scale	Frequency (n)	Percentage (%)
Negative	309	73.0
Positive	114	27.0
Mean \pm SD	4.61 \pm 1.31	



Respondents' Subjective Norm Categorization

As depicted in Table 7 above, the result of the analysis revealed that respondents' subjective norm was measured on a 12-point rating scale and categorized into negative (0–4.9) and positive (6.0–12). The result of the analysis revealed that the respondents' subjective norm mean score was 4.61 ± 1.31 . The majority, 309 (73.0%) of the respondents had a negative subjective norm.

Table 8: Respondents' Intention to use Alcohol

Intention variables for consideration	Highly unlikely F (%)	Unlikely F (%)	Likely F (%)	Highly likely F (%)
I will engage in alcohol use in the near future.	28(6.6)	115(27.2)	56(13.2)	224(53.0)
I have no intention of drinking alcohol excessively or abusing it.	28(6.6)	87(20.6)	112(26.5)	196(46.3)
I will use alcohol at social events.	-	143(33.8)	-	280(66.2)
I will experiment with alcohol just to see how it affects me.	86(20.3)	57(13.5)	168(39.7)	112(26.5)

Respondents' Intention to use alcohol.

As shown in Table 8 above, the result of the analysis regarding respondents' intention to use alcohol revealed that more than half, 224 (53.0%) of the respondents are highly likely to engage in alcohol consumption in the near future. Similarly, close to half, 196 (46.3%) of the respondents stated that they are highly likely to drink alcohol excessively or abuse it. The result also revealed that the majority, 280 (66.2%) of the respondents are highly likely to use alcohol at social events. Additionally, more than a quarter, 112 (26.5%) of the respondents are highly likely to experiment with alcohol just to see how it affects them.

Table 9: Respondents' Intention to Use Alcohol Categorization

Intention to use alcohol measured on 12-point rating scale	Frequency(n)	Percentage (%)
Poor intention	308	72.8
Good intention	115	27.2
Mean \pm SD	3.70 ± 2.80 .	

As shown in Table 9 above, the result of the analysis revealed that respondents' intention to use alcohol was measured on a 12-point rating scale. The result also revealed that respondents mean intention score was 3.70 ± 2.80 . The result of the analysis further showed that the majority, 308 (72.8%) of the respondents had poor intentions towards alcohol consumption.



Test of Hypotheses

Three hypotheses were tested in this study to determine the factors associated with intention to use alcohol among in-school adolescents in Ado-Odo/Ota, Ogun State, Nigeria. In testing this hypothesis, Pearson correlation analysis and regression analysis was conducted at 0.05 level of significance. The decision rule was that if the p-value computed was less than or equal to 0.05, the null hypotheses will be rejected in favor of the alternative hypotheses and vice versa.

Table 10: Pearson Correlation Showing the Relationship Between Knowledge and Intention

Knowledge Intention	Pearson correlation (r^2)	Sig. (2 tailed)
	0.227	< 0.001.

Table 11: Linear Regression Analysis Showing the Association Between Knowledge and Intention to Use Alcohol

Model	R	R Square	Adjusted R Square
1	0.227	0.052	0.049

H₀₁: There is no statistically significant relationship between the level of knowledge of health-risk of alcohol use and the intention to use alcohol among in school adolescents.

As shown in Table 11 above, the result of the Pearson correlation revealed that there was a statistically significant relationship between level of knowledge and the intention to use alcohol ($r = 0.227$, $p = < 0.001$). A linear regression analysis further showed that knowledge of the health risks of alcohol use contributed 4.9% to the intention to use alcohol among school-age adolescents (adjusted $R^2 = 0.049$). Therefore, the null hypothesis is hereby rejected in favour of the alternative hypothesis.

Table 12: Pearson Correlation Showing the Relationship Between Attitude and Intention

Attitude Intention	Pearson correlation (r^2)	Sig. (2 tailed)
	-0.652	< 0.001.

Table 13: Linear Regression Analysis Showing the Association Between Attitude and Intention to Use Alcohol

Model	R	R Square	Adjusted R Square
2	0.652	0.426	0.424



H₀2: There is no statistically significant relationship between attitudinal disposition towards alcohol use and the intention to use alcohol among in-school adolescents.

As shown in Table 13 above, the result of the Pearson correlation revealed that there was a statistically significant relationship between attitudinal disposition and the intention to use alcohol ($r = -0.652$, $p = < 0.001$). A linear regression analysis further showed that attitude towards alcohol use contributed 42.4% to the intention to use alcohol among school-age adolescents (adjusted $R^2 = 0.424$). Therefore, the null hypothesis is hereby rejected in favour of the alternative hypothesis.

Table 14: Pearson Correlation Showing the Relationship Between Subjective Norm and Intention

Subjective norm	Pearson correlation (r^2)	Sig. (2 tailed)
Intention	-0.005	0.92

H₀3: There is no statistically significant relationship between the subjective norm use of alcohol and the intention to use alcohol among in-school adolescents.

As shown in Table 14 above, the result of the Pearson correlation revealed that there was no statistically significant relationship between subjective norm and the intention to use alcohol ($r = -0.005$, $p = 0.92$). Hence, the null hypothesis is accepted.

DISCUSSION OF FINDINGS

The present research sought to investigate the factors that are associated with the intention to consume alcohol among school-age adolescents in Ado-Odo Ota, Ogun State. The result of the findings revealed that the respondents were between 14 and 19 years old, with a mean age of 16.14 ± 1.15 . This finding is similar to the finding of Shibiru et al. (2023), who reported that the mean age of their respondents was 17.5 ± 1.5 in their study to assess the prevalence and factors associated with alcohol consumption among secondary school students in Nekemte, Ethiopia. The present study's age range is also in consonance with the study of Alphaeus (2020) in his study to assess the predictors and factors of alcohol use among in-school adolescents in the Ikenne Local Government Area of Ogun State, Nigeria. The present study is also in agreement with the mean age reported by Zhao et al. (2020) in their study to determine the intention to drink and alcohol use before 18 years among Australian adolescents. The present study found a higher male-to-female ratio. This finding concurred with the study of Park et al. (2022), when they conducted a research to investigate factors associated with the sustainable use of alcohol in adolescents who consume alcohol, and the possibility of future drinking. The gender distribution in the present study is, however, at variance with the finding of Zhao et al. (2020), who reported that 53.7% of their respondents were females. The variation in gender distribution could be attributed to the study population and geographical setting. The present study revealed that 59.6% of the respondents were Christians. This is in line with Shibiru et al. (2023), who reported that Orthodox Christians made up more than half of their respondents. Similarly, Osonuga et al. (2022) reported that 41.4% of their respondents were Christians. The present



study found that more than half of the respondents were Yoruba. This finding corresponds with the finding of Osonuga et al. (2022).

The present study revealed that only 47.0% of the respondents claimed to know the long-term consequences of excessive alcohol consumption. This is a concerning issue and a public health danger as the media has failed in its responsibility to inform the youth about the dangers associated with the use of alcohol. The media should not only advertise alcohol and mislead adolescents, but while showcasing it, they should also inform the public on its health implications.

The present study revealed that only 47.0% of the respondents claimed to know the long-term consequences of excessive alcohol consumption. This is a concerning issue and a public health danger, as the media has failed in its responsibility to inform the youth about the dangers associated with the use of alcohol. The media should not only advertise alcohol and mislead adolescents, but while showcasing it, they should also inform the public on its health implications. The present study finding is in congruence with the study conducted by Eze et al. (2017), who reported that close to half of their respondents do not know the health implications of alcohol consumption. The present study is, however, contrary to the report of Chikere and Mayowa (2011), who they reported that 68.5% of their respondents knew that long-term use of alcohol could lead to health problems such as cancer, liver disease, sexually transmitted disease, HIV/AIDS, low birth weight in women, stroke, and even sudden death. The present study revealed that 53.2% of the respondents knew the risk associated with driving under the influence of alcohol. This finding is similar to the finding of Alonso et al. (2015), who reported that around 60% of their respondents believed that driving under the influence of alcohol was the maximum risk. The present study showed that the majority of respondents claimed that drinking alcohol interferes with their daily responsibilities and obligations. Adolescence is a crucial stage of development that brings about a lot of changes in one's body, mind, emotions, social interactions, and behaviour. Adolescents' cognitive traits include heightened reward sensitivity, sensory seeking, impulsive conduct, and a decreased ability to manage emotions and behaviours (Romer et al., 2017; Casey, 2015). Teenagers may be more susceptible to the potentially dangerous and protracted effects of alcohol use due to brain development specific to adolescents (Spear, 2016). The present study revealed that close to half of the respondents argued that the long-term effects of alcohol can affect organs negatively. Since ancient times, people have been known to suffer from severe illnesses as a result of long-term alcohol consumption. WHO's research from 2019 states that alcohol abuse was a contributing factor in 5.3% of all fatalities that took place globally in 2016. The study further stated that alcohol consumption causes many chronic diseases and increases the severity of diseases while making treatments less effective. The present study reported that 53.9% of the respondents claimed that excessive alcohol use can cause anxiety and depression. This finding is in consonance with previous research. For example, Davies et al. (2022) reported in their study that 35.3% of their respondents reported that increased drinking affected their mental health negatively. The current study found that overall, 53.7% of the respondents had a high level of knowledge regarding alcohol consumption, a finding that is at variance with Edoni and Oshiname's (2017) 31.2% respondents with a high level of knowledge. The study finding is in congruence with the study conducted by Eze et al. (2017), who reported that close to half of their respondents do not know the health implications of alcohol consumption. The present study is, however, contrary to the report of Chikere and Mayowa (2011), who reported that 68.5% of their respondents knew that long-term use of alcohol could lead to health problems such as cancer,



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The current study revealed that the majority of the respondents had a negative attitude towards alcohol consumption. This is consistent with the finding of Fadupin et al. (2015), who reported that the majority of their respondents had a negative attitude towards the intake of alcoholic drinks. The current survey also showed that fewer than half of the participants thought drinking alcohol may be harmful to their health and well-being. This result aligns with earlier research. For instance, there is a positive correlation between alcohol intake and self-efficacy (Blank et al., 2016), self-esteem (Copeland et al., 2018), and various other characteristics of sociality. However, studies on the relationship between alcohol intake and life satisfaction, mental health, and school connection (Blank et al., 2016) have shown negative correlations. The present study revealed that 59.3% of the respondents were of the notion that alcohol consumption is socially acceptable and enjoyable. This finding is consistent with the finding of Nwosu et al. (2022), who reported that men find it hard to quit alcohol due to factors within their communities, such as social gatherings.

According to the current survey, about 50% of the respondents said they occasionally felt under pressure to think about drinking alcohol. This is in line with research by Hao and Young (2000), who found that some drinking habits pose serious dangers. For instance, pushing people to drink at get-togethers with friends and co-workers is a common strategy used to build rapport and validate connections. However, the current study showed that the majority of the respondents reported that they do not care about what their peers think of alcohol. This contradicts the research of Morris et al. (2020), who found that alcohol pressure impacts people of all ages and can be seen as either overtly hostile or subtly friendly. According to their research, those who drink little or no alcohol are more likely to experience overt peer pressure.



The present study revealed that the majority of the respondents concurred that seeing alcohol use depicted positively in the media makes them more likely to use alcohol. This finding is consistent with the findings of Meisel et al. (2022), who argued that, while adolescents have access to a variety of screen modalities, social media is uniquely positioned to influence alcohol expectancies due to the public nature of alcohol content posts and the ability to "like," react to, and comment on posts. According to the notion of social learning, learning happens when people experience the consequences of others' acts (David, 2015). These behavioural observations might occur directly via social interactions with people or indirectly through the media. Peers have a big effect on adolescent health attitudes, intentions, and behaviors, especially when it comes to alcohol (Moreno & Whitehill, 2014). According to adolescents, 60% of their age-matched peers and 31% of their friends post alcohol-related content on social media (Meisel et al., 2022). Respondents in the current survey stated that easy access to alcohol through social gatherings, bars, retail establishments, or as depicted in the media may influence their inclination to consume alcohol. According to Roberts et al. (2016), data has indicated that alcohol marketing is a crucial component that encourages young people's drinking. Similarly, Lasebikan et al. (2018) discovered that extensive alcohol usage was reported among their respondents in their study. They claimed that alcohol and other drugs were openly exhibited, sold, and consumed at the research locations. In their analysis, they also found that there were inadequate provisions and enforcement of laws forbidding the open exhibition of alcohol and other narcotics. The present study revealed a negative subjective norm among the respondents. This conclusion is consistent with the findings of Jackson et al. (2014), who discovered that their respondents would consume alcohol if supplied by a best friend or a classmate. In their study, they also concluded that social norms appear to play a crucial role in substance use decisions and are relevant when examining more reactive behaviours that reflect an intention to drink under favourable conditions.

In terms of alcohol use intention, the current study found that more than half of respondents are extremely likely to participate in alcohol use in the near future, and 66% are highly likely to drink alcohol during social occasions. This is hardly unexpected given the respondents' negative influences from their parents and peers. This supports Huchting et al.'s (2008) claim that intentions to drink mediated the interaction between attitudes and norms on drinking behaviour. They went on to say that subjective standards predicted greater drinking intentions than attitudes or behavioural control. The current investigation discovered a strong relationship between knowledge level and intention to consume alcohol. The current study also discovered a strong relationship between attitude and intention to drink alcohol; however, there was no significant relationship between subjective norms and intention to drink alcohol. This contradicts earlier research. Muli and Lagan (2017), for example, discovered in their study that the three most recognized influencing aspects of the tendency to use alcohol were family stresses or conflict, risk-taking or inquisitive behaviour, and the desire not to be socially ostracized.

CONCLUSION

The study revealed that the respondents had insufficient knowledge regarding the risks associated with alcohol consumption. A significant proportion of the respondents do not know the health implications of excessive consumption of alcohol, while a good proportion believe it is socially acceptable and enjoyable. Similarly, the result of the analysis further revealed an



unfavourable attitude amongst the respondents, as about half of the respondents consider alcohol to be socially acceptable, enjoyable, and a means to relax and unwind, with a significant proportion of the respondents downplaying the harmfulness of alcohol. The result also revealed that respondents' families, friends, media, and environment contributed immensely to respondents' intention to use alcohol. Lastly, insufficient knowledge, an unfavourable attitude, and subjective norms (such as family, friends, media, and environment) all played a role in respondents' intention to consume alcohol in the future.

REFERENCES

- Alonso, F., Pastor, J.C., Montoro, L., & Esteban, C. (2015). Driving under the influence of alcohol: frequency, reasons, perceived risk and punishment. *Substance Abuse Treatment Prevention and Policy* **10**, 11 (2015). <https://doi.org/10.1186/s13011-015-0007-4>
- Alpheaus, C. I. D. (2020). Predictors of Alcohol Use among In-School Adolescents in a Community of Ikenne Local Government Area, Ogun State, Nigeria. *TEXILA INTERNATIONAL JOURNAL OF PUBLIC HEALTH*, **8**(3), 360–368. <https://doi.org/10.21522/TIJPH.2013.08.03.ART040>.
- Adekoya, O. A., Adekunle, O. A., & Olugbenga, A. (2018). Prevalence and predictors of alcohol use among secondary school students in Nigeria. *International Journal of Adolescence and Youth*, **23**(4), 732-746.
- Adekunle, A. O., Adekoya, O. A., & Olugbenga, A. (2020). Prevalence and predictors of alcohol use among secondary school students in Ogun State, Nigeria. *Journal of Substance Use*, **25**(2), 129-138.
- Adoodoota Local Government. (n.d.). Educational Institutions. Retrieved April 20, 2023.
- Ajzoon, M.S.B. (2017) "Alcohol and Substance Use Knowledge, Attitudes, Subjective Norms, Self-Efficacy, Perceived Behavioral Control, and Behavioral Intentions among Omani College Students.," in *ProQuest LLC eBooks*. Available at: <https://doi.org/10.25777/w61p-gw72>.
- Akeredolu-Ale, E. O., Oyewole, O. P., & Thomas, O. (2011). Alcohol Abuse among Adolescents in Ogun State, Nigeria. *Addictive Disorders & Their Treatment*, **10**(2), 57-63.
- Akeredolu-Ale, E. O., Oyewole, O. P., & Thomas, O. (2011). Alcohol Abuse among Adolescents in Ogun State, Nigeria. *Addictive Disorders & Their Treatment*, **10**(2), 57-63.
- Akintola, O. O., Odejide, A. O., Olatawura, M. O., & Ogunlesi, T. O. (2013). Prevalence and associated factors of alcohol abuse among adolescents in Ado-Odo/Ota Local Government Area of Ogun State, Nigeria. *International journal of social science and humanity*, **3**(2), 162.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Amman, J (2016). Social Support and Adolescents' Alcohol Use: An Integrative Literature Review. *Scientific research publishing*, **8**, 1166-1177
- Anderson, P., de Bruijn, A., Angus, K., Gordon, R., & Hastings, G. (2015). Impact of alcohol advertising and media exposure on adolescent alcohol use: A systematic review of longitudinal studies. *Alcohol and Alcoholism*, **50**(2), 207-220.
- Anyanti, J., & Omosini, S. (2017). Alcohol use among young people in Nigeria: A systematic review and meta-analysis. *BMC Public Health*, **17**(1), 811.



- Baros, A. M., Latham, P. K., & Moak, D. H. (2016). A review of family factors associated with adolescent alcohol use: Implications for research and intervention. *American Journal of Drug and Alcohol Abuse*, 42(6), 587-597. <https://doi.org/10.1080/00952990.2016.1192614>
- Bhatti, S. N., Fan, L. M., Collins, A., & Li, J. M. (2020). Exploration of alcohol consumption behaviours and health-related influencing factors of young adults in the UK. *International journal of environmental research and public health*, 17(17), 6282.
- Blank, M. L., Connor, J., Gray, A., & Tustin, K. (2016). Alcohol use, mental well-being, self-esteem and general self-efficacy among final-year university students. *Social psychiatry and psychiatric epidemiology*, 51, 431-441.
- Blank, M. L., Connor, J., Gray, A., & Tustin, K. (2016). Alcohol use, mental well-being, self-esteem and general self-efficacy among final-year university students. *Social psychiatry and psychiatric epidemiology*, 51, 431-441.
- Boden, M & Fergusson, M (2018). Alcohol and depression. *Addiction*, 106, 906-914
- Brière, N & Rohde, P (2018). Comorbidity Between Major Depression and Alcohol Use Disorder From Adolescence to Adulthood, *Compr Psychiatry*, 55(3), 526–533
- Bühler, M., & Mann, K. (2020). Alcohol and the human brain: A systematic review of different neuroimaging methods. *Alcohol and Alcoholism*, 55(1), 39-52.
- BusinessDay. (2023, July 17) Health expert decries high alcohol consumption rate in Nigeria. Retrieved from <https://businessday.ng/news/article/health-expert-decries-high-alcohol-consumption-rate-in-nigeria/>
- Casey B. J. (2015). Beyond simple models of self-control to circuit-based accounts of adolescent behavior. *Annual review of psychology*, 66, 295–319. <https://doi.org/10.1146/annurev-psych-010814-015156>
- Chikere, E.I., Mayowa, M.O. Prevalence and perceived health effect of alcohol use among male undergraduate students in Owerri, South-East Nigeria: a descriptive cross-sectional study. *BMC Public Health* 11, 118 (2011). <https://doi.org/10.1186/1471-2458-11-118>
- Christodoulou, A., Abakoumkin, G., & Tseliou, E. (2019). Teachers' Intention to Report Child Maltreatment: Testing Theoretically Derived Predictions. *Child & Youth Care Forum*, 48(4), 513–527. <https://doi.org/10.1007/s10566-019-09492-x>
- Copeland, M., Fisher, J. C., Moody, J., & Feinberg, M. E. (2018). Different kinds of lonely: Dimensions of isolation and substance use in adolescence. *Journal of youth and adolescence*, 47, 1755-1770.
- Crawford, M. J., Patton, R., Touquet, R., Drummond, C., Byford, S., Barrett, B., ... & Brown, A. (2017). Screening and referral for brief intervention of alcohol-misusing patients in an emergency department: A pragmatic randomised controlled trial. *The Lancet*, 394(10200), 219-230.
- Cristello, J.V. et al. (2023a) "Subjective norms as a mediator between exposure to online alcohol and marijuana content and offline use among adolescents," *Drug and Alcohol Review* [Preprint]. Available at: <https://doi.org/10.1111/dar.13620>.
- Cristello, J.V. et al. (2023b) "Subjective norms as a mediator between exposure to online alcohol and marijuana content and offline use among adolescents," *Drug and Alcohol Review* [Preprint]. Available at: <https://doi.org/10.1111/dar.13620>.
- David L. (2015) Social Learning Theory Bandura Social Learning Theory. *Learn Theor.* 2015; October.
- Davies, E. L., Puljevic, C., Gilchrist, G., Potts, L., Zhuparris, A., Maier, L. J., Barratt, M. J., Winstock, A. R., & Ferris, J. A. (2022). Impacts of changes in alcohol consumption patterns during the first 2020 COVID-19 restrictions for people with and without mental



- health and neurodevelopmental conditions: A cross sectional study in 13 countries. *The International journal on drug policy*, 101, 103563. <https://doi.org/10.1016/j.drugpo.2021.103563>
- De Bellis, M. D., Pohl, K. M., Shankaranarayanan, A., Clark, D. B., & Hooper, S. R. (2019). Putamen volume and cortisol reactivity in adolescents with alcohol use disorders. *Addictive Behaviors*, 90, 12-17.
- Edoni, E.E., & Oshiname, F.O. (2017). Knowledge of alcohol related harm and pattern of consumption among rural and urban secondary school adolescents in Ibadan, Nigeria *African Journal of drug and alcohol studies*
- Espada, J (2019). Relation between Substance Use and Depression among Spanish Adolescents. *International Journal of Psychology and Psychological Therapy*, 11(1), 79-90
- Evans, W. D., Rath, J. M., Pitzer, L., Hair, E. C., Snider, J. G., Cantrell, J., ... & Vallone, D. (2015). A randomized trial of the “Own Your C” smoking cessation campaign. *American Journal of Preventive Medicine*, 48(4), 408-419.
- Eze, N. M., Njoku, H. A., Eseadi, C., Akubue, B. N., Ezeanwu, A. B., Ugwu, U. C., & Ofuebe, J. I. (2017). Alcohol consumption and awareness of its effects on health among secondary school students in Nigeria. *Medicine*, 96(48), e8960. <https://doi.org/10.1097/MD.00000000000008960>
- Fadupin, G.T., Ogunkunle, M.O., Gabriel, O.O. (2015). Knowledge, Attitude and Consumption Pattern of Alcoholic and Sugar Sweetened Beverages among Undergraduates in a Nigerian Institution *African Journal of Biomedical Research*
- Ferreira Alves, R., Precioso, J., & Becoña, E. (2021). Alcohol-related knowledge and attitudes as predictors of drinking behaviours among Portuguese university students. *Alcoholism and Drug Addiction/Alkoholizm i Narkomania*, 34(1), 33-50. <https://doi.org/10.5114/ain.2021.107709>
- Fitzgerald, N., McCambridge, J., & Fleming, K. M. (2017). Alcohol dependence and the stigma of alcoholism. *Addiction*, 112(7), 1250-1251.
from <https://adoodootalg.org.ng/educational-institutions/>
- Ghiadoni, L., Pomella, N., & Schuldberg, D. (2019). Virtual reality exposure therapy in the treatment of alcohol addiction: A review. *Addictive Behaviors*, 93, 273-278. <https://doi.org/10.1016/j.addbeh.2019.01.006>
- Giletta, M (2017). Friendship Context Matters: Examining the Domain Specificity of Alcohol and Depression Socialization Among Adolescents. *J Abnorm Child Psychol*, 40, 1027–1043
- Griswold, M. G., Fullman, N., Hawley, C., Arian, N., Zimsen, S. R. M., Tymeson, H. D., ... & Lim, S. S. (2018). Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 392(10152), 1015-1035.
- Hansell, N. K., Agrawal, A., Whitfield, J. B., Morley, K. I., & Lynskey, M. T. (2012). Genetics of alcohol consumption. In S. R. Pandi-Perumal, S. Verster, R. Fernández-Mendoza, & J. L. R. Barbosa (Eds.), *Drugs, alcohol and mental health* (pp. 1-16). Springer.
- Hao, W., & Young, D. (2000). Drinking patterns and problems in China. *Journal of Substance Use*, 5(1), 71-78.
- Hatzenbuehler, M. L., Keyes, K. M., & Hasin, D. S. (2009). State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. *American Journal of Public Health*, 99(12), 2275-2281.



- Henry, M & Kitaka, B (2019). Depressive symptoms, sexual activity, and substance use among adolescents in Kampala, Uganda. *African Health Sciences*, 19(2), 1888 – 1896.
- Holt, C. L., DeVore, D., & Armstead, C. A. (2019). Expanding the Health Belief Model: The Theory of Gender and Power. *Health Education & Behavior*, 46(6), 985–993. <https://doi.org/10.1177/1090198119837792>
- Homman, L & O’Neill, F (2019). The longitudinal relationship of alcohol problems and depressive symptoms and the impact of externalizing symptoms: findings from the Belfast Youth Developmental Study. *Social Psychiatry and Psychiatric Epidemiology*, 54, 1231–1241
- Huchting, K., Lac, A., & LaBrie, J. W. (2008). An Application of the Theory of Planned Behavior to Sorority Alcohol Consumption. *Addictive Behaviors*, 33(4), 538–551. <http://doi.org/10.1016/j.addbeh.2007.11.002>
- Jackson, K. M., Roberts, M. E., Colby, S. M., Barnett, N. P., Abar, C. C., & Merrill, J. E. (2014). Willingness to drink as a function of peer offers and peer norms in early adolescence. *Journal of studies on alcohol and drugs*, 75(3), 404–414. <https://doi.org/10.15288/jsad.2014.75.404>
- Jiang, L., Deng, R., Wang, H., Zhang, Y., & Zhao, Y. (2019). Application of the Health Belief Model to promote hepatitis B vaccination in China: A systematic review and meta-analysis. *BMC Public Health*, 19(1), 373. <https://doi.org/10.1186/s12889-019-6689-1>
- Johnston, L. D., O’Malley, P. M., Miech, R. A., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2016). Monitoring the Future national survey results on drug use, 1975-2015: Volume I, Secondary school students. Ann Arbor: *Institute for Social Research, The University of Michigan*.
- Kabami, J., Rwamasirabo, J., Bahemuka, U., King, R., & Kansime, J. (2019). Factors associated with adherence to antiretroviral therapy among people living with HIV/AIDS in Uganda using the Health Belief Model. *International Journal of STD & AIDS*, 30(1), 77–85.
- Kendrick, D., Kumar, A., Carpenter, H., Zijlstra, E., Skelton, D. A., Cook, J. R., & Stevens, Z. (2018). Exercise for reducing fear of falling in older people living in the community. *Cochrane Database of Systematic Reviews*, (11).
- Keyes, K. M., Grant, B. F., Hasin, D. S., & Blanco, C. (2019). The relationship of alcohol problems to social inequalities in alcohol consumption and alcohol-related problems. *International Journal of Environmental Research and Public Health*, 16(8), 1466. <https://doi.org/10.3390/ijerph16081466>
- Kilic, M., Karatas-Ozkan, M., Aydin, B., & Keser, A. (2018). The impact of knowledge and attitudes on alcohol consumption and alcohol-related problems among university students in Turkey. *BMC public health*, 18(1), 1369.
- Kimbui, E & Obadia, Y (2018). A cross-sectional study of depression with comorbid substance use dependency in pregnant adolescents from an informal settlement of Nairobi: drawing implications for treatment and prevention work. *Annals of General Psychiatry*, 17, 53
- Kirk, A (2017). Adolescents at Risk: Depression, Low Academic Performance, Violence, and Alcohol Increase Bolivian Teenagers’ Risk of Attempted Suicide. *The International Electronic Journal of Health Education*, 8, 104-119
- Koenig, L. J., Hoyer, N., Boakye, F., Maama-Maime, L. B., Shimp, T., Zorn, M., & Amankwah, J. (2016). Risky sex among Ghanaian youth: Association with having heard of sexually transmitted infections, having had sex, and contraceptive knowledge. *The Journal of Sex Research*, 53(7), 840-851.



- Korn, L. *et al.* (2020) “Attitudes, Subjective Norms, and Perceived Behavioral Control Associated with Age of First Use of Cannabis among Adolescents,” *Journal of School Health*, 91(1), pp. 50–58. Available at: <https://doi.org/10.1111/josh.12977>.
- Kushner, M. G., Krueger, R. F., Frye, B., Peterson, J., & Reynolds, C. (2019). DSM-5 substance use disorders and cognitive functioning: A narrative review. *Current Opinion in Psychology*, 30, 74-79. <https://doi.org/10.1016/j.copsyc.2019.01.014>
- Lasebikan, V.O., Ayinde, O. & Odunleye, M. (2018). Assessment of the alcohol consumption among outdoor bar drinkers in Nigeria by qualitative methods. *BMC Public Health* **18**, 318 (2018). <https://doi.org/10.1186/s12889-018-5250-y>
- Lemmens, P., Knibbe, R., & Tan, F. (2018). Education, information and prevention: Evaluating a Dutch community-based approach aimed at preventing excessive alcohol use among young people. *Health Education Research*, 33(2), 126-136.
- Liu, R.-D. *et al.* (2019) “<p>The Effect of Parental Phubbing on Teenager’s Mobile Phone Dependency Behaviors: The Mediation Role of Subjective Norm and Dependency Intention</p>,” *Psychology Research and Behavior Management*, Volume 12, pp. 1059–1069. Available at: <https://doi.org/10.2147/prbm.s224133>.
- Martens, M. P., Smith, A. E., Murphy, J. G., Mallett, K. A., Ray, A. E., & Hester, J. B. (2019). Implementing effective alcohol interventions: Opportunities and challenges. *Annual Review of Clinical Psychology*, 15, 395-421.
- Mereu, A., Liori, A., Dessì, C., Girau, M., Mc Gilliard, D. C., Sotgiu, A., ... & Sardu, C. (2021). Alcohol-related behaviour in freshmen university students in Sardinia, Italy. *International journal of environmental research and public health*, 18(13), 7203.
- Messina, M. P., Battagliese, G., D’Angelo, A., Ciccarelli, R., Pisciotta, F., Tramonte, L., ... & Ceccanti, M. (2021). Knowledge and practice towards alcohol consumption in a sample of university students. *International journal of environmental research and public health*, 18(18), 9528.
- Meisel, S. N., Nesi, J., Janssen, T., & Jackson, K. M. (2022). Adolescent (mis) perceptions of peer alcohol posts on social media: prospective associations with alcohol attitudes and use. *Alcoholism: clinical and experimental research*, 46(11), 2054-2067.
- Meyers, R. J., Roozen, H. G., & Smith, J. E. (2019). The community reinforcement approach: An update of the evidence. *Alcohol Research & Health*, 40(1), 11-20.
- Moreno, M. A., & Whitehill, J. M. (2014). Influence of social media on alcohol use in adolescents and young adults. *Alcohol research: current reviews*, 36(1), 91.
- Morris, H., Larsen, J., Catterall, E., Moss, A. C., & Dombrowski, S. U. (2020). Peer pressure and alcohol consumption in adults living in the UK: a systematic qualitative review. *BMC public health*, 20(1), 1014. <https://doi.org/10.1186/s12889-020-09060-2>.
- Muli, N., Lagan, B.M. (2017). Perceived determinants to alcohol consumption and misuse: a survey of university students. *Perspectives in Public Health*. 2017;137(6):326-336. doi:10.1177/17579139177110569
- Mungandi, K., Likwa, R. N., Hamoonga, T. E., Banda, J., & Zyambo, C. (2022). Predictors of alcohol consumption among adolescents and young adults in Lusaka, Zambia. *African health sciences*, 22(4), 704–715. <https://doi.org/10.4314/ahs.v22i4.77>
- Nasui, B. A., Popa, M., & Popescu, C. A. (2016). Drinking patterns and behavioral consequences: a cross-sectional study among Romanian university students. *Slovenian Journal of Public Health*, 55(1), 59-66.
- National Institute on Alcohol Abuse and Alcoholism. (2020). Alcohol use disorder. <https://www.niaaa.nih.gov/alcohols-effects-health/alcohol-use-disorder>



- NIAAA (2016). Underage drinking. Retrieved from <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/underage-drinking>
- Nwankwo, M. U., & Okeke, P. N. (2016). Alcohol Abuse and Psychosocial Problems among Youths in Abakaliki Metropolis, Ebonyi State, Nigeria. *Alcohol and Alcoholism*, 51(5), 545-552.
- Nwosu, I. A., Ekpechu, J., Njemanze, V. C., Ukah, J., Eyisi, E., Ohuruogu, B., Nwazonobi, P., Umanah, U. N., & Clement, W. E. (2022). Self-Report on Men's Beliefs and Perceptions on Their Alcohol Use/Misuse in Southeast Nigeria. *American journal of men's health*, 16(6), 15579883221130193. <https://doi.org/10.1177/15579883221130193>
- O'Connor, R. M., & Colder, C. R. (2021). Parent and peer influences on the development of adolescent alcohol use: A systematic review of longitudinal studies. *Clinical Psychology Review*, 85, 101982. <https://doi.org/10.1016/j.cpr.2021.101982>
- Obembe, O. O., & Obembe, A. O. (2016). Prevalence and correlates of alcohol use among adolescents in a Nigerian rural community. *BMC Public Health*, 16(1), 817.
- Obot, I. S. (2015). Alcohol in Nigeria: A call to action. *Alcohol research: current reviews*, 35(2), 298.
- Ogunwale, A. S., Odejide, A. O., Ayinde, O. O., & Oladepo, O. (2020). Knowledge, attitude, and practice of alcohol use and misuse in Lagos, Nigeria. *Journal of addiction*, 2(1), 30-43
- Oladipo, O., & Oladipo, O. O. (2015). Prevalence and awareness of alcohol abuse among students in Ado/Odo-Ota Local Government Area, Ogun State, Nigeria. *African Journal of Drug & Alcohol Studies*, 14(2), 109-116.
- Olajide, D. O., Oluyomi, A. O., & Adekunle, A. O. (2020). Attitudes and beliefs towards alcohol among secondary school students in Nigeria. *Journal of Substance Use*, 25(1), 1-9.
- Olugbenga, A., Adekunle, A. O., & Adekoya, O. A. (2019). Prevalence and predictors of alcohol use among secondary school students in Nigeria. *Journal of Substance Use*, 24(3), 174-182.
- Oshodi, O. Y., Aina, O. F., & Onajole, A. T. (2017). Prevalence and correlates of alcohol use among a sample of Nigerian semirural community dwellers in Ogun state. *Journal of substance use*, 22(6), 653-657.
- Osonuga, A.A., Ogunmoroti, B.D., Osonuga, A., Da'costa, A. (2019) Alcohol use among secondary school students in Nigeria: A worrisome trend. *New Nigeria Journal of clinical research* 2019; 8:54-9
- Park, E. A., Jung, A. R., & Choi, S. (2022). Analysis of related factors for adolescents' intention to use alcohol in Korea. *PloS one*, 17(10), e0275957. <https://doi.org/10.1371/journal.pone.0275957>.
- Peltzer, K., Phaswana-Mafuya, N., & Ramlagan, S. (2017). Hazardous and harmful alcohol use and associated factors in tuberculosis public primary care patients in South Africa. *International Journal of Environmental Research and Public Health*, 14(10), 1236. <https://doi.org/10.3390/ijerph14101236>
- Popova, S., Lange, S., Probst, C., & Gmel, G. (2017). Global prevalence of alcohol use and binge drinking during pregnancy, and fetal alcohol spectrum disorder. *BioMed research international*, 2017.
- Rehm, J., Gmel, G. E., Gmel, G., Hasan, O. S. M., Imtiaz, S., Popova, S., ... & Roerecke, M. (2017). The relationship between different dimensions of alcohol use and the burden of disease—an update. *Addiction*, 112(6), 968-1001.



- Romer, D., Reyna, V. F., & Satterthwaite, T. D. (2017). Beyond stereotypes of adolescent risk taking: Placing the adolescent brain in developmental context. *Developmental cognitive neuroscience*, 27, 19–34. <https://doi.org/10.1016/j.dcn.2017.07.007>
- Roush, J. F., Brown, J. L., Jaffe, A. E., Lewis, T. F., Roy, B., & Abdallah, C. G. (2020). A systematic review and meta-analysis of the associations between psychiatric comorbidities and alcohol involvement in randomized controlled trials of naltrexone. *Alcohol and Alcoholism*, 55(5), 506-515. <https://doi.org/10.1093/alcalc/agaa054>
- Shibiru, T., Arulandhu, A., Belete, A., Etana, J., & Amanu, W. (2023). Prevalence and Factors Associated with Alcohol Consumption Among Secondary School Students in Nekemte, Ethiopia: A Cross-Sectional Study. *Substance abuse and rehabilitation*, 14, 35–47. <https://doi.org/10.2147/SAR.S408736>.
- Sholeye, O. O., Alimi, Z. T., Jeminusi, O., & Akinpelu, A. (2022). Prevalence and Pattern of Alcoholic Beverage Consumption among Undergraduates in Remo, Ogun State, . . . *ResearchGate*.
https://www.researchgate.net/publication/363347992_Prevalence_and_Pattern_of_Alcoholic_Beverage_Consumption_among_Undergraduates_in_Remo_Ogun_State_Southwest_Nigeria
- Shorey, R. C., Stuart, G. L., Moore, T. M., & McNulty, J. K. (2017). The impact of culture on the relationship between alcohol consumption and risky sexual behavior among college students. *Journal of American College Health*, 65(4), 283-290. <https://doi.org/10.1080/07448481.2016.1265008>
- Smith, L. A., Foxcroft, D. R., & Lister-Sharp, D. (2017). Attitudes and beliefs towards alcohol among UK secondary school students: A systematic review. *Journal of Adolescent Health*, 61(6), 674-680.
- Spear, L. P. (2016). Alcohol consumption in adolescence: a translational perspective. *Current addiction reports*, 3, 50-61.
- Substance Abuse and Mental Health Services Administration. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.
- Ukwayi, J. K., Ebuenyi, I. D., Akpan, M. U., & Owolabi, E. O. (2016). Prevalence and trend of alcohol use in Nigeria: a systematic review. *Journal of addiction*, 2(4), 60-71
- Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *New England Journal of Medicine*, 374(4), 363-371. <https://doi.org/10.1056/nejmra1511480>
- Wan, C., Shen, G.Q. and Choi, S. (2018) “The moderating effect of subjective norm in predicting intention to use urban green spaces: A study of Hong Kong,” *Sustainable Cities and Society*, 37, pp. 288–297. Available at: <https://doi.org/10.1016/j.scs.2017.11.022>.
- Waller, D. S., Benzian, H., & Seymour, B. (2019). Health promotion and disease prevention: A historical review. *Journal of Public Health Dentistry*, 79(S1), 5-17.
- World Health Organization. (2018). Global status report on alcohol and health 2018. World Health Organization.
- World Health Organization. (2018). International statistical classification of diseases and related health problems (11th Revision). <https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/979046924>
- World Health Organization. (2019). *Global status report on alcohol and health 2018*. World Health Organization.



- Wysokińska, M., & Kołota, A. (2022). Assessment of the Prevalence of Alcoholic Beverage Consumption and Knowledge of the Impact of Alcohol on Health in a Group of Polish Young Adults Aged 18–35: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, 19(23), 15425. <https://doi.org/10.3390/ijerph192315425>
- Zhao, X., Kelly, A. B., Rowland, B., Williams, J., Kremer, P., Mohebbi, M., Carter, R., Abraham, C., Abimanyi-Ochom, J., & Toumbourou, J. W. (2020). Intention to drink and alcohol use before 18 years among Australian adolescents: An extended Theory of Planned Behaviour. *Addictive behaviours*, 111, 106545. <https://doi.org/10.1016/j.addbeh.2020.106545>