

EPIDEMIOLOGICAL IMPACT OF EXCESSIVE ALCOHOL CONSUMPTION AMONG SPORTS WOMEN IN PLATEAU STATE.

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Abstract

*The paper assessed **Epidemiology Impact of Excessive Alcohol Consumption among Sports Women in Plateau State**. Descriptive Survey research design was used for the study. The population of the study comprised all university sports women in plateau state. Purposeful sampling techniques was used to select the sample size of (160) one hundred and sixty sports women for the study. Questionnaire was the instrument used to collect the data which was validated by three (3) experts in the field, with coefficient index of 0.80. The research questions were answered using mean and standard deviation while t-test was used to test the hypothesis at 0.05 level of significance. The findings revealed that the Sports women in plateau state do not significantly consume alcohol, that there is a significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state, there is a significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state. It was recommended that, Public Health Education Campaigns: Launch focused public health initiatives to increase knowledge of the dangers of excessive alcohol use, with an emphasis on how it affects overall health, athletic performance, and reproductive health, Include Alcohol Education in Sports Programs: Sportswomen's training regimens should include alcohol education. Sports organizations and coaches should stress the detrimental effects of alcohol on long-term health, rehabilitation, and physical performance, provide Sportswomen Who Struggle with Alcohol Use Access to Counselling and Support Services: Create or improve access to counselling and support services for sportswomen and Policy Implementation and Enforcement: Promote more stringent guidelines to restrict alcohol promotion and consumption during sporting events and activities inside sports organizations. Healthcare Provider Involvement: During routine physical examinations, encourage sportswomen to have their alcohol consumption regularly screened.*

Keywords: Epidemiology, Excessive Alcohol Consumption, sports women and Plateau State

Introduction

Epidemiology is the study and analysis of the distribution pattern and determinants of health and diseases condition in a defined population (Belmont, & Goodman, 2024).

Epidemic is the occurrence of a community or origin of cases of illness or health related events clearly in excess of normal expected in a determined community or region during a given period of time or season according to Masula and Hermawan, (2024). It is clearly referred to as an outbreak of diseases. Excessive Alcohol drinking refers to consuming alcohol in amount that are harmful or risky to one's health or well-being. CDC (2010), noted that excessive alcohol drinking include binge drinking for women at (4) four or more drinks during a single occasion and heavily drinking for women at (8) eight or more drinks per week. Drinking to intoxication, alcohol dependence and any thinking by pregnant women. The health, social economic impact of alcohol related harm and disease in Nigeria are well documented causing over 3 million deaths every year, by being the sixth leading death and disability and also causing lower wages, loss of employment opportunities.

Impact of Alcohol On Health

Excessive alcohol use is associated with an increased risk of injuries, chronic diseases such as liver disease, heart diseases, and several types of cancers, poor pregnancy outcomes, depression, motor vehicle crashes and increase violence.

Impact on the brain; alcohol related cognitive decline and shrinkage of brain develop quickly among women. Woman who drink excessively are at increased risk of damage to the heart muscle at lower levels of consumption and over fewer years of drinking as suggested by Task Force on Community Prevention Services 2005 (Eder, et, al., 2021) Esser, et, al., (2014), added that, excessive alcohol use, particularly binge drinking is a major contributing factors to sexual violence among couples. Alcohol consumption increases the risk of cancers of the mouth, throat, esophagus, liver and colon in women. It is also associated with breast cancer even at low level of consumption (WHO, 2014). Although men are more likely to drink alcohol and consume larger amounts, biological difference in body structure and chemistry lead most women to absorb more alcohol and take longer to metabolize. To drink in same amount of alcohol women tend to have high blood alcohol levels than men and immediately effects of alcohol usually occur more quickly and last longer in women (WHO, 2018)

These differences make susceptible to the long-term negative health effects of alcohol compared with men. Excessive alcohol use is associated with nearly 59,000 deaths among women and as well poses unique health and safety risks to women. There is no known safe amount of alcohol use during pregnancy; alcohol use during pregnancy, alcohol use during pregnancy increases the risk of having a baby with fetal alcohol spectrum disorder (FASD). The most severe form fetal alcohol syndrome (SAS) which is associated with intellectual disabilities and birth defects. Excessive alcohol use increases the risk of miscarriage, still birth, premature delivery and sudden infant death syndrome (SIDS) (Maart, Charumbira, & Louw, 2024). Maryks, and Wright, (2014) expressed that, excessive alcohol use is risk Factor for white range of heart and social problems including liver cirrhosis, certain cancers, depression motor vehicle crashes and violence. Alcohol use during pregnancy can lead to so alcohol spectrum disorder (FASD) and other adverse birth outcomes. The authors added that, as many as 2% to 5% of first grade students in the United States might have an FASD which includes physical, behavioral and learning impairment.

Prevalence Alcohol Use

Alcohol use is common among women and girls. Nearly half of adult women reported drinking alcohol in the past. Esther Esser, et, al., (2014) 13% approximated bringe drinking. Among them 25% do so at least weekly, on average and 25% consume at least during a bringe drinking occasion. Almost 18% of women at child bearing age (ie ages 18 to 44 years) bringe drink. Furthermore Maryks, and Wright, (2014), added that, in 2019 about 32% of female in high school students consumed alcohol compared with 26% of male school students. Bringe drinking was also more common among female by 15% more than male 13% high school students. In 2020, 90% of woman overall and 17% of women 18 to 25 years had alcohol use disorder

Prevalence of Alcohol Use Disorder/prevalence of Alcohol Use Disorder

WHO,(2024)estimated global percent of the population that has an alcohol use disorder. Most American adults consume alcohol at least once in their lifetime.Amongthem (6.7%) will develop alcohol use disorder (AUD). In England, there are estimated 602 to 391 dependent drinkers in 2018, of whom 82% are not receiving treatments. Alcohol misuse is the biggest risk factor for death, ill health and disability among 15 to 49 years old in the UK, and the fifth biggest risk factors cross all ages. The percentage of people that gets over alcoholism and stay sober is about 35.9% or about one third according to National Institute on alcohol abuse and alcoholism (2024)

Statement of the Problem

Excessive alcohol consumption is a public health issues in Nigeria. It requires Effective control and prevention strategies, policy actions to address harmful alcohol use are the action plan. The Federal Road Safety, act 2008 and the National Agency for Food and drug Administration and Control NAFDAC Act, all these policies takes a cue from The WHO SAFER initiative which includes: Strengthening restriction on alcohol availability, advancing and enforcing drink driving counter measures, facilitating access to screening and brief intervention and treatment (Maart, Charumbira, & Louw, 2024).Furthermore,WHO reinforced bans or comprehensive restriction on alcohol through advertisements, promotion of raising prices of alcohol through exercising taxes and pricing policies.

In spite of the existing policies on alcohol consumption it was observed that, cases of related health issues and illness such as divorce, heart and liver diseases, high blood pressure, diabetes, pregnancy related alcohol illnesses etc on excessive alcohol consumption is on the increase among female adults. The increase consumption of alcohol by female adult could however be related to weak implementation of existing policies on alcohol consumption, lack of jobs, peer group initiative, loneliness, stress relief strategies and many others.

Purpose of the Study

This research intended to assess the epidemiological impact of excessive consumption of alcohol among sports women of child bearing age in plateau state.

The specific objective of this study are to access the:

1. Consumption of alcohol among sports womenin plateau state.
2. Excessive alcohol consumption of alcohol among sports women in plateau state
3. Epidemiological impact of excessive consumption of alcohol among sports women in plateau state

Research Questions

The following research questions are stated for the purpose of the study

1. Do sports women in plateau state consume alcohol?
2. Do sports women in plateau state consume excessive alcohol?
3. Are there epidemiological impact of excessive consumption among sports women in plateau state?

Limitations of the Study

The study is limited to all the universities in Plateau state. It is further limited to sports women of child bearing age 18 – 44 years/

Hypothesis

The following hypothesis with formulated for the purpose of the study

Ho; Sports women in plateau state do not significantly consume alcohol

Ho; There is no significant impact of alcohol consumption among pregnant sports women in plateau state

Ho; There is no significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state

Significance of the Study

This study will be significant due to the following reasons:

1. The study will be significant to health caregivers as they will devise ways of advancing and manage of related health issues.
2. It will also be of great importance to public health policy makers, as they will embark on other vital majors to reduce the epidemic
3. NGOs will also activate action plans interventions such as; increase of alcohol prices to higher level in order to stop buyers.
4. It is of great importance to NAFDAC by diving ways of stopping the production, sales and purchase of alcohol in Nigeria.
5. Masses will be made aware of impact of alcohol on health of women and the consequences.

Methodology

Descriptive Survey research design was used for the study. The population of the study comprised all university sports women in plateau state. Plateau state Nigeria have both Federal, state and private universities. The Federal universities in Plateau, University of Jos, Plateau State University, Bokokos while Private University is Annan University Kwall.

These universities have a good number of sports women in various areas of sports discipline. The researcher's method was to select all the universities in the state for the study. Purposeful sampling techniques was used to select the sample size of (160) one hundred and sixty sports women for the study, University of Jos 65, Plateau state University, Bokokos 54, and Annan University Kwall 41. Questionnaire was the instrument used to collect the data which was validated by three (3) experts in the field, with coefficient index of 0.80. The instrument was administered to sports women of the Plateau State universities. Data was collected and analysed, were by descriptive statistics inform of frequencies and percentages was used answer the research question and the inferential statistics of non-parametric test of Chi-square was used to test the hypotheses at 0.05 level of significance.

Result and discussion

Table 1: Demographic Information of the Respondent

Item	Response	Frequency	Percent
Age	25 years and below	23	14.4
	26-35	92	57.5
	36-45	45	28.1
	Total	160	100.0
Marital Status	Married	80	50.0
	Single	80	50.0
	Total	160	100.0
Occupation	Academic	47	35.6
	Non-Academic staff	58	6.9
	Students	55	29.4
	Total	160	100.0

Table 1 indicated that 14.4% of respondents were 25 years and below, 57.5 % were 26-35 years old while 28.1% were 36-45 years old. This indicated that majority of the respondents were 26-35. Furthermore, the table revealed that 50.0% of the respondents were married and 50.0% of the respondents were Single. The table also revealed that 35.6% respondents have Civil service as their **occupation, 6.9% Business, 29.4 % Sports, 13.8 % Farming and 14.4% were Students. This indicated that majority of the respondents have Sports as their occupation**

Research Questions

Research Question one:Do sports women in plateau state consume alcohol?

Table 2: frequency and percentage scores of the responses on consumption of alcohol

Item	Response	Frequency	Percent
Do you consume alcohol?	No	96	60.0
	Yes	64	40.0
	Total	160	100.0
Do you consume alcohol in a single occasion?	No	87	54.0
	Yes	73	46.0
	Total	160	

Table 2 revealed that 60.0% of the respondents do not consume alcohol while 40.0% do consume. The table also indicated that 54.0% of the respondents do not consume alcohol in a single occasion while 46.0% do consume. This implies that majority of sports women in plateau state do not consume alcohol

Research Question two:Do sports women in plateau state consume excessive alcohol?

Table 3: frequency and percentage scores of the responses on excessive consumption of alcohol

		Frequency	Percent
Item	Response		
How many alcoholic drinks do you consume in a single occasion?	One	23	14.4
	Two	34	21.3
	Three	11	6.9
	Four	11	6.9
	more than 5	11	6.9
	None	70	43.8
	Total	160	100.0
How many alcoholic drinks do you consume in a week?	2 bottles		
		35	21.9
	3 bottles	11	6.9
	4 bottles	22	13.8
	6 bottles	22	13.8
	None	70	43.8
Do you drink alcohol to intoxicate you?	Total	160	100.0
	No		
		115	71.9
	Yes	45	28.1
	Total	160	100.0
Do you drink alcohol to relief you of stress?	No		
		116	72.5
	Yes	44	27.5
	Total	160	100.0

Table 3 revealed that 14.4% of the respondents consume one alcoholic drink in a single occasion, 21.3 % consume two, 21.3 % consume, 6.9% consume three, 6.9% consume four, 6.9 % consume five, none of the respondent consume more than 5 while 43.8 do not consume at all. The table also indicated that 21.9% of the respondents consume 2 bottles of alcoholic drink in a week, 6.9% consume 3 bottles, 13.8 % consume 4 bottles, 13.8% consume 6 bottles while 43.8 do not consume at all. The table also indicated that 71.9 % of the respondents do not drink alcohol to intoxicate them while 28.1% drink alcohol to intoxicate them. Furthermore, the table showed that 72.5 % of the respondents do not drink alcohol to relief them of stress while 27.5% drink alcohol to relief them of stress. This implies that majority of sports women in plateau state do not consume excessive alcohol.

Research Question three: Are there epidemiological impact of excessive consumption among sports women in plateau state?

Table 4: frequency and percentage scores of the responses on epidemiological impact of excessive consumption

Item	Mean	No F	%	Yes F	%
Do you depressed after drinking alcohol?	1.21	127	79.4	33	20.6
Do you exited after drinking?	1.43	92	57.5	68	42.5
Have you been diagnosed of high blood pressure?	1.21	127	79.4	33	20.6
Have you been diagnosed of low blood pressure?	1.28	116	72.5	44	27.5
Have you been diagnosed of liver disease?	1.14	138	86.3	22	13.8
Have you been diagnosed of heart disease?	1.14	138	86.3	22	13.8
Do you observed decline in your performance?	1.21	127	79.4	33	20.6
Have you been diagnosed with any type of cancer?	1.21	127	79.4	33	20.6
Do you think you are prone to accidents and injuries?	1.21	127	79.4	33	20.6
Do you think alcohol when you are pregnant?	1.14	138	86.3	22	13.8
Have you experience premature delivery?	1.14	138	86.3	22	13.8
Have you experience still birth?	1.14	138	86.3	22	13.8
Have you experience miscarriage?	1.14	138	86.3	22	13.8
Have you experience death of a baby	1.14	138	86.3	22	13.8

Table 4 revealed that 79.4 % of the respondents do not depressed after drinking alcohol while 20.6% do it, 57.5% of the respondents do not exited after drinking while 42.5% do it, 79.4% of the respondents have never been diagnosed of high blood pressure while 20.6% did it, 79.4% of the respondents have never been diagnosed of diagnosed of low blood pressure while 27.5% did it, 86.3% of the respondents have never been diagnosed of liver disease while 13.8% did it, 86.3% of the respondents have never been diagnosed of heart disease while 13.8% did it, 79.4% of the respondents do not observed decline in their performance while 20.6% do it, 79.4% of the respondents have never been diagnosed with any type of cancer while 20.6% did it, 86.3% of the respondents do not think alcohol when they are pregnant while 13.8% do it, 86.3% of the respondents do not experience premature delivery while 13.8% did it, 86.3% of the respondents do not experience still birth while 13.8% did it, 86.3% of the respondents do not experience miscarriage while 13.8% did it while 86.3% of the respondents do not experience death of a baby while 13.8% did it. This implies that majority of sports women in plateau state do not experience epidemiological impact of excessive consumption

Testing hypotheses

Ho; Sports women in plateau state do not significantly consume alcohol

In order to test hypotheses one the responses of the respondents were subjected to Chi- square. Summary of the analysis was presented in table 5

Table 5: Chi- Square analysis on consumption alcohol

Observed N	Expected N	Chi-Square	df	p-value	Decision
81	80.0	0.025	1	0.874	Not sign.
79	80.0				
160					

Table5 revealed that the Chi- Square value of 0.025was computed and the p- value 0.874was observed. Hence, the study retained the hypothesis that saySports women in plateau state do not significantly consume alcohol.

Ho; There is no significant impact of alcohol consumption among pregnant sports women in plateau state

In order to test hypotheses two the responses of the respondents were subjected to Chi-square. Summary of the analysis was presented in table 6

Table 6: Chi- Square analysis on impact of alcohol consumption

Observed N	Expected N	Chi-Square	Df	p-value	Decision
59	22.9	87.188	6	0.000	Significant
23	22.9				
34	22.9				
11	22.9				
11	22.9				
11	22.9				
11	22.9				
160					

Table 6 revealed that the Chi- Square value of 87.188was computed and the p- value 0.000 was observed. Hence, the study rejected the hypothesis that say there is no significant impact of alcohol consumption among pregnant sports women in plateau state This implies that there is a significant impact of alcohol consumption among pregnant sports women in plateau state

Ho; There is no significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state

In order to test hypotheses three the responses of the respondents were subjected to Chi-square. Summary of the analysis was presented in table

Table 7: Chi- Square analysis on epidemiological impact of excessive alcohol consumption

Observed N	Expected N	Chi-Square	Df	p-value	Decision
145	100.0	35.64	3	0.000	Significant
73	100.0				
109	100.0				
73	100.0				
109	100.0				
400					

Table 7 above revealed that the Chi- Square value of 5.64 was computed and the p- value 0.000 was observed. Hence, the study rejected the hypothesis that say there is no significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state. This implies that there is a significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state.

Discussion of finding

The result indicated that Sports women in plateau state do not significantly consume alcohol. The result disagreed with that Watten, (2015) who found that women engaged in sports drank significantly more beer and had higher total consumption of alcohol. The finding also revealed that there is a significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state. The finding was in line with that of Abetew, et, al., (2022) their result found that the prevalence of alcohol consumption among the participants was 45.6% (95% confidence interval = 41.4–49.2).

The result also indicated there is a significant epidemiological impact of excessive alcohol consumption among sports women of childbearing age in plateau state. The result agreed with that of Popova, Rehm, and Shield, (2020) according to their finding, Alcohol is an addictive substance, consumed by 43% of the adult population globally in 2016. Alcohol consumption causes health, social, and economic harms to individuals who drink, their families and others within their social networks, as well as to strangers. At a global level, alcohol is one of the leading risk factors for the global burden of disease, resulting in 3 million deaths in 2016 (5.3% of all deaths), affects the risk of numerous diseases and injuries, and has been related to communicable and noncommunicable diseases.

Conclusion and References

Based on the findings, it was concluded that: the low rates of consumption of alcohol among Plateau State sportswomen indicate that the majority of this population prioritizes their physical well-being and athletic success. This encouraging trend might be the result of a growing understanding of the detrimental effects of alcohol on recuperation, athletic performance, and long-term wellbeing. Sports women in this group who drink too much alcohol have serious health consequences that could endanger their reproductive health in addition to impairing their general well-being and athletic performance. This category's excessive alcohol use has detrimental effects on their general health and sports ability, and it also poses major threats to their reproductive health.

Recommendations

Based on the findings of this study, it was recommended that;

- a. Public Health Education Campaigns: Launch focused public health initiatives to increase knowledge of the dangers of excessive alcohol use, with an emphasis on how it affects overall health, athletic performance, and reproductive health. Include
- b. Alcohol Education in Sports Programs: Sportswomen's training regimens should include alcohol education. Sports organizations and coaches should stress the detrimental effects of alcohol on long-term health, rehabilitation, and physical performance.
- c. Provide Sportswomen Who Struggle with Alcohol Use Access to Counseling and Support Services: Create or improve access to counseling and support services for sportswomen.
- d. Policy Implementation and Enforcement: Promote more stringent guidelines to restrict alcohol promotion and consumption during sporting events and activities inside sports organizations.

Healthcare Provider Involvement: During routine physical examinations, encourage sportswomen to have their alcohol consumption regularly screened.

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