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ASSESSMENT OF YOUTHS ENGAGEMENT IN SUBSTANCE ABUSE AND DETERMINANT FACTORS IN BAYELSA CENTRAL, NIGERIA

Ebiowei John[1], Dr. Solomon M. Uvoh*[2], Dr. Emmanuel Onokpite[3]
(Orcid I'd; https://orcid.org/0000-0002-3499-3528),
Dr. Emily Kiridi G. E.[4], Dr. Tabowei O. Churchill[5]

[1] Department of Community Health, School of Public Health Sciences, University of Port Harcourt, Rivers State, Nigeria.
[2] Department of Human Physiology, Faculty of Basic Medical Science, College of Health Sciences, University of Port Harcourt, Rivers State, Nigeria.
[3] Department of Anaesthesia and Intensive Care, Faculty of Clinical Medicine, College of Health Sciences, Delta State University, Abraka, Delta State, Nigeria.
[4] Department of Human Physiology, Faculty of Basic Medical Science, College of Health Sciences, Niger Delta University, Wilberforce Island, Amassoma, Bayelsa State, Nigeria.
[5] Department of Microbiology, Bayelsa Medical University, Bayelsa State, Nigeria.
Corresponding Author: Dr. Solomon M. Uvoh (Orcid I'd; https://orcid.org/0000-0002-1580-9916)
Email: SolomonU31@gmail.com

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Abstract:

Aim/Objective: Substance misuse among youths is a growing concern in the world, and Nigeria is included in this matter. This study aimed to comprehensively examine substances abuse and their determinants among youths in Yenagoa LGA, with the goal of ascertaining its prevalence, characterizing the types of substances misused, and identifying related health problems to this alarming partern. **Methods:** cross-sectional descriptive approach was adopted for this study to select all 378 respondents' primary data retrieved using structured questionnaire. **Results:** Out of 378 respondents, 238(63%) were males and 140(37%) females. They were between age 16-36(48.9%). Most respondents were single (48.7%) and Christians (61.6%). They mostly had tertiary (39.9%) and Secondary (33.6%) education. Their occupations varied from unemployed (17.2%) to students (26.7%) and civil servant (15.3%). Out of all the respondents, 166(43.9%) admitted to abusing drugs. Cannabis was the most misused substance (60.8%). However, 36.1% subjects admitted using the substances daily. The two main reasons among the youths for substance abuse (24.1% & 21.1%) were to improve recreational performance and to enhance their work morale while the least reason (4.8%) was to fight and enhance sleeping. Also peer pressure from friends and some family members that have already involved in substance abuse was a determinant factors to the misuse of substances among the youths. **Conclusion:** Most respondents assume the substance calm them while some claimed to consume more of tobacco. In addition, most of the respondents are still dependent on their parents and claimed to be addicted to substance abuse.

Keywords: *Cannabis, Cocaine, Marijuana, Meth, Tobacco*

INTRODUCTION

Understanding patterns of substance abuse among youths is important to effective development and strategies to prevent this menace. Abuse of substance varies among youths and geographical regions. Smith & Johnson in 2019 throws light on importance of streamlining abuse of substance in relation to types and commonly abused duration of use, and the motivations behind usage. These classifications give insights to vital challenges caused by different substances to tailored interventions accordingly. Abuse Substances among youth's increases worldwide with notable outcome to their health and social cohesion. Substance abuse from nationl survey shows that there is a complex condition that affects brain's adaptive changes in response to repeated exposure (Oshodi *et al.,* 2018; Sorochi, 2021).

Adebamowo *et al*. (2018) comprehensive nationwide research shows that Nigerians adolescents engage in substance abuse. Their findings shows that more than 20% of youths agreed to have abused drugs like alcohol, cigarettes, and marijuana in the past. There is an urgency to address this uncontrolled problem, considering its harmful impact. Research have observed the role of socioeconomic disparities in shaping youths' vulnerability to substance abuse with emphasizes on the need for targeted interventions (Akinwande,2018; Olumide *et al.,* 2019).Studies by Author *et al.,* (2017) noted the significant health risks associated with substance abuse not only jeopardizes the immediate health of youths but also has long-term implications, potentially affecting their overall quality of life and future prospects. Smith & Johnson, (2019) emphasized considering both proximal and distal determinants of substance abuse which include peer pressure, family dynamics, and personal experiences, while distal factors encompass socioeconomic conditions, cultural norms, and access to substances.

Statistics reveal alarming trends among adolescents, with a Studies showing that more than one in five high school seniors in the US reported taking illegal substances a year ago, making them susceptible to addiction and its consequences (Chambers *et al.,* 2003; Chartier *et al*., 2010;Bamidele *et al.,* 2019; Keyes *et al.,*2019). Nigeria faces unique challenges in addressing youth substance abuse due to its diverse cultural, social, and economic landscape (Hamisu *et al.,* 2020. Research by Nigerian experts (Nwankwo & Okoli, 2021) has highlighted the need for approaches that requires cultural and social factors shaping substance abuse patterns among Nigerian youths. Furthermore, within Nigeria, the Rivers State region may have unique characteristics and challenges regarding substance abuse that require specific attention.

One of the foremost concerns regarding substance abuse among youths in Yenagoa LGA, Bayelsa State, is the lack of precise data on its prevalence. Understanding the extent of this issue is crucial for devising effective prevention and intervention strategies (Adebamowo *et al.,* 2018). Substance use disorder is described as a pattern of symptoms resulting in severe impairment or distress, exhibited by cognitive, behavioral, and physiological symptoms in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (APA, 2013). A study by Johnston *et al.,* (2019) reported that in the United States, Students in high school frequently utilize alcohol, marijuana, and cigarettes. Research by Karriker-Jaffe *et al*., (2018) highlighted the correlation between increased incidence of alcohol use disorders and lower socioeconomic level, indicating that economic disparities can contribute to variations in substance abuse. Monitoring the Future surveys have shown variations in substance use patterns across generations, with some age groups experiencing higher rates of specific substance use (Miech *et al.,* 2019; Cookston, 2020).

MATERIALS AND METHODS

Research Design

A descriptive cross-sectional survey design was used for this investigation. Characterizing the types of substances abused, identifying associated health problems, and determining factors associated with substance abuse among the youths in Yenagoa L G A, Bayelsa State.

Study Area

Yenagoa is the capital city and administrative headquarters of Bayelsa State of Nigeria. Yenagoa Local Government Area is bounded by Rivers State to the north and east, Kolokuma/Opokuma Local Government Area to the southeast, and Southern Ijaw Local Government Area to the southwest. It comprises of a densely clustered multi-ethnic youth and adolescent population. English serves as the official language, alongside local indigenous languages predominantly Ijaw, Epie and Atissa.

Study Population

The main focus of this research was on youths within Yenagoa LGA that are within 16-36 years, representing adolescents and young adults.

Inclusion Criteria

Age: Participants between 16 and 36 years old.

- Only individuals who are residents of Yenagoa LGA.
- Participation was voluntarily.
- Informed consent was obtained from all participants or their legal guardians.

Exclusion Criteria:

- Participants who cannot communicate effectively in the language(s) used were excluded.
- Participants with severe health conditions such as severe mental illness or acute medical conditions were excluded.
- Individuals identify to have previously participated in the same study were excluded.

Study Tools

The study utilized structured questionnaires for collecting information from youths in Yenagoa LGA.

Sample Size

The Cochrane's formula was used to provide the sample size as the target population is large or unknown.

- $N = Z^2 PQ/d^2$

Where

- **N**: Desired minimum sample size.
- **Z**: Standard normal deviation at the required confidence level (set at 1.96 for a 95% confidence interval).
- **p**: Estimated proportion of substance use and patterns of use in local studies (A study of the context of adolescent substance use and patterns of use in Yenagoa Local Government, Bayelsa State, Nigeria. 32.8% prevalence (Funmilayo *et al.,* 2019). so p = 0.328 provides maximum variability
- **q**: Complementary probability (1 - p = 1 - 0.328 = 0.672).

- **d**: Degree of precision or tolerable error margin (set at 0.05).

Computation

- $Z^2 = 1.96 \times 1.96 = 3.8416$
- $p \times q = 0.328 \times 0.672 = 0.220416$
- Numerator (Z^2 pq) = $3.8416 \times 0.220416 = 0.8467501056$
- Denominator (d^2) = $0.05 \times 0.05 = 0.0025$
- N =0.8467501056/0.0025 =338.700 (~339 participants)

Adjusting for Attrition and Non-Response

Non-Response Rate Correction

- Account for incomplete questionnaires, lost contacts, or uncooperative respondents by adding a 10% attrition buffer (10% of 339 = 40).
- Adjusted Sample Size = (339 + 40 = 379.

Sampling Technique

Multistage sampling was adopted across different wards for this study:

- One: Selections of specific wards in Yenagoa LGA.
- Stage two: Selects specific neighborhood clusters
- Three: Simple random selection of participants.

Data source: Primary

Data Collection

This was done using a structured questionnaire that consisted the following sections namely:

A: Socio – demographic of the population.
B: The prevalence of substance abuse
C: characterization of substance abuse in terms of types of substances used, frequency, and modes of consumption.
D: Health problems associated with substance abuse
E: Factors associated with substance abuse

Data Analysis: This was done using SPSS version 20 to analyze 378 collected data.

Chi-Square Tests

Chi-Square tests of association for each variable with Substance Abuse were performed. The test showed a significant association ($p < 0.001$).

Ethical Considerations

Ethical Approval: The study was approved by the research and ethical committee of the University of Port Harcourt prior to its initiation.

RESULTS

Socio-demographic data of respondents

Table 1: Gender and Age Analysis of the Respondents

Variable	Frequency	Percentage %	X
Sex			
Male	238	63.0	6.42
Female	140	37.0	1.66
Total	378	100.0	
Age			
16-20	101	26.7	26.24
21-25	84	22.2	
26-30	82	21.7	
31-34	69	18.3	
>34	42	11.1	
Total	378	100.0	

Out of 378 respondents, 238(63%) were males and 140(37%) were females. They were mostly between the ages of 16-25(48.9%). NB: X = Mean

Source: *Data Analysis using IBM SPSS version 20*

Socio-demographic data of respondents 2

Table 2: Marital Status and Religion Analysis of the Respondents

Variable	Frequency	Percentage %
Marital status		
Single	184	48.7
Married	147	38.9
Divorced	35	9.3
Separated	12	3.2
Total	378	100.0
Religion		
Christian	233	61.6
Islam	25	6.6
Traditional	89	23.5
Others	31	8.2
Total	378	100.0

Most of the respondents were single (48.7%) and Christian (61.6%)

Source: *Data Analysis using IBM SPSS version 20 – Statistical Product and Service Solution*

Socio-demographic data of respondents 3

Table 3: Level of Education and Occupation Analysis of the Respondents

Variable	Frequency	Percentage %
Level of Education		
Illiterate	34	9.0
Primary	66	17.5
Secondary	127	33.6
Tertiary	151	39.9
Total	378	100.0
Occupation		
Student	101	26.7
Civil Servant	58	15.3
Unemployed	65	17.2
Business	71	18.8
Farming	37	9.8
Domestic worker	40	10.6
Others	6	1.6
Total	378	100.0

They mostly had tertiary (39.9%) or Secondary (33.6%) level of education. Their occupations varied from unemployed (17.2%) to student (26.7%) and civil servant (15.3%).

Source: *Data Analysis using IBM SPSS version 20*

Table 4a: Prevalence of substance abuse 1

Variable	Frequency	Percentage %
People who abuse drugs	166	43.9
substance abused		
Cannabis	101	60.8
Tobacco	8	4.8
Marijuana	9	5.4
Cocaine	7	4.2
Others	9	5.4
Reasons for abusing substance		
For Work	35	21.1
For Recreation	40	24.1
To Fight	8	4.8
For Sleeping	8	4.8
To avoid Thinking	12	7.2

Out of all the respondents, 166(43.9%) admitted to abusing substance. Cannabis was the most used substance (60.8%) and the two major reasons for using substance were work (21.1%) and recreation (24.1%).

Source: *Data Analysis using IBM SPSS version 20*

Table 4b : Prevalence of substance abuse 2

Variable	Frequency	Percentage %
Frequency of substance use		
Hourly	22	13.3
Daily	60	36.1
Weekly	1	0.6
Monthly	20	12.0

36.1% of the respondents admitted to using substance daily

Source: *Data Analysis using IBM SPSS version 20*

Table 5a: Factors associated with substance abuse

	Do not abuse substance		Abuse substance		Total		X2	df	Pvalue
	Freq	%	Freq	%	Freq	%			
Religion									
Christian	149	63.9	84	36.1	233	100.0			
Islam	21	84.0	4	16.0	25	100.0	36.854	3	0.000
Traditional	34	38.2	55	61.8	89	100.0			
Others	8	25.8	23	74.2	31	100.0			

Total	212	56.1	166	43.9	378	100.0			
Marital Status									
Single	109	59.2	75	40.8	184	100.0			
Married	62	42.2	85	57.8	147	100.0	30.932	3	.000
Divorced	30	85.7	5	14.3	35	100.0			
Separated	11	91.7	1	8.3	12	100.0			
Total	212	56.1	166	43.9	378	100.0			

Majority of respondents Islam 84.0 % do not abuse substance, followed by Christians 63.9%. . Majority of separated 91.7% do not abuse substance, followed by divorced. Majority of respondents others 74.2% abuse substance, followed by traditional worshippers 61.8%.

Source: *Data Analysis using IBM SPSS version 20*

Table 5b: Factors associated with substance abuse 2

	Do not abuse substance		Abuse substance		Total		X2	df	Pvalue
	Freq	**%**	**Freq**	**%**	**Freq**	**%**			
Level of Education									
Illiterate	12	35.3	22	64.7	34	100.0			
Primary	13	19.7	53	80.3	66	100.0			
Secondary	113	89.0	14	11.0	127	100.0	100.304	3	0.000
Tertiary	74	49.0	77	51.0	151	100.0			
Total	212	56.1	166	43.9	378	100.0			
Occupation									
Student	47	46.5	54	53.5	101	100.0			
Civil Servant	30	51.7	28	48.3	58	100.0	39.430	6	0.000
Unemployed	24	36.9	41	63.1	65	100.0			
Business	49	69.0	22	31.0	71	100.0			
Farming	21	56.8	16	43.2	37	100.0			
Domestic worker	35	87.5	5	12.5	40	100.0			
Others	6	100.0	0	0.0	6	100.0			
Total	212	56.1	166	43.9	378	100			

Education and Occupation are directly correlated to substance use. Lower level of education (illiterate and primary) is directly correlated with substance use.

Source: *Data Analysis using IBM SPSS version 20*

Table 6: Characteristics of Substance Abuse

Variable	Frequency	Percentage %
How substance make you feel		
Calm and gentle	25	6.6
Like to commit Suicide	0	0.0
Relax and sleep off	17	4.5
Talks all through the day	10	2.6
Forget sorrows	20	5.3
See everyone as small ants	22	5.8
Can eat Big Portion of food	8	2.1
Which substance suits your body the most		
Meth	17	4.5
Tobacco	24	6.3
Cocaine	6	1.6
Indian hemp	15	4.0
Marijuana	10	2.6
Others	30	7.9
Do you Borrow money to buy substances	24	6.3

Many of the respondents 6.6% said substances intake makes them feel calm and gentle, followed by 5.8% that said it makes them see everyone as small ants. Majority of respondents 7.9% takes other forms of substances aside the ones listed, followed by 6.3% agree that tobacco intake suits their body most such that they could borrow money to buy it.
Source: *Data Analysis using IBM SPSS version 20*

Table 7: Health Problems and Factors Affecting Substance Abuse

Variable	Frequency	Percentage %
Health problems		
Blackout	11	2.9
Withdrawal symptoms	9	2.4
Have you had depression	8	2.1
Do you find it difficult to stop taking substance	24	6.3
Factors Affecting substance use		
Do you stay with parents	34	9.0
Do your family members take substances	32	8.5
Do your friends pressure you to taste substances	17	4.5
Do you have improved memory	26	6.9

Majority of respondents 6.3% agree that they finds it difficult to stop taking substances, followed by 2.9% which says they experience blackout when they take illicit substance. Majority of respondents 9.0% stay with their parents, followed with 8.5% agree that their family members take substance
Source: *Data Analysis using IBM SPSS version 20*

DISCUSSION

The study answered its research questions using parameters such as the standard deviation, arithmetic mean and rank order. An aggregate mean and standard deviation of 6.42 and 1.66 respectively was obtained from the male and female respondents on the extent of substance abuse among the youths of Yenagoa Local Government Area. On the role of how the substance abuse among the youths of Yenagoa LGA to be characterized in terms of types of substances used, frequency, and modes of consumption, an aggregate mean and standard deviation of 6.20 and 1.07 respectively was obtained from the male and female respondents of the study. There was no mean rating and standard deviation of male and female respondents on the specific health problems and consequences associated with substance abuse among the youth, considering both physical and mental well-being.

An aggregate mean and standard deviation of 6.93 and 1.65 respectively was obtained from the male and female respondents on factors that contribute to substance abuse among the youths of Yenagoa LGA, including influences from peers, family, socioeconomic status, and availability of substances. The study also tested its hypotheses using parameters such as the number of respondents (n) arithmetic mean (x), standard deviation (SD), z-calculated value (z-cal), degree of freedom (df), and z-critical value (z-crit).They were mostly between the ages of 16-25(48.9%) with mean age of 26.24 ± 6.7.

Objective 1: Prevalence of substance abuse among the youths: In this study out of all the respondents, 166(43.9%) admitted to abusing substance. This is different from Degenhardt *et al.,* (2019) of 5.4% global prevalence of substance abuse. This study disagrees with the national centre for substance abuse and Eneh et al. 2019 which stated that 21.3% of youths indulge in taking illicit substances when they are only 8 years but it agrees with the national centre for statistics concerning the global estimate that there is an increase to 46.6% when they get 12 years. This study also disagrees with Kugbey (2023) who stated a prevalence of 11.3% with specific abuse on 2.2% alcohol, and 2.6% marijuana. Findings from this study also disagrees with the NBS (2022), showing a 14.4 % substance abuse. Our findings agrees with Fentaw *et al.,* (2022) prevalence of 43.70% among West African countries.

Objective 2: Characteristic type of substance abuse among the youths: Findings from this study shows that Cannabis was the most used substance (60.8%) and the two major reasons for using substance were work (21.1%) and recreation (24.1%). This disagrees with Johnston et al. (2019) who reported that the use of alcohol, marijuana, and tobacco is common among high school students, with varying prevalence rates over the years and that Gender-based differences exist in substance abuse characteristics.

Findings from this study shows that Level of education and Occupation are directly correlated to substance use. Lower levels of education (illiterate and primary) are directly correlated with substance use. Many of the respondents 6.6% said substances intake makes them feel calm and gentle, followed by 5.8% that said it makes them see everyone as small ants. This agrees with Keyes et al., (2019) who stated an association with level of education, age, working status, marital status, wealth index, and media exposure. The study also agrees with Keyes et al., (2019) concerning the higher prevalence in males for substance use including alcohol

than females. Also this study agrees with Karriker-Jaffe et al. (2018) who highlighted that there is a relation between socio-economic and substance abuse. This study also agrees with Miech et al., (2019) that the pattern of substance abuse varies across generations, with differences in age groups who tends to abuse specific substances more than others.

Objective 3: Health problems associated with substance abuse among the youths: This study shows that Majority of respondents 6.3% agree that they finds it difficult to stop taking substances, followed by 2.9% which says they experience blackout when they take illicit substance. This agrees with Hasin *et al*., (2018), who state that substance abuse is associated with mental disorders such as depression, anxiety, and psychosis. It also agrees with Volkow et al., (2016) who stated that life-threatening infectious diseases like HIV/AIDS and hepatitis C. He further stated that substance abuse can cause changes in brain structure and function, leading to cognitive impairments.

Objective 4: Factors associated with substance misuse among the youths: This study of 8.5% shows that family members take substance, 4.5% have pressure friends to have a taste while 6.9% takes it to improve their memory. This agrees with Windle & Windle (2018) who highlighted the impact of peer influences and the social environment on adolescent substance use.This disagrees with Conway et al. (2016) who opined that psychological factors increase the risk of substance abuse.

CONCLUSION

Out of all the respondents, 166(43.9%) admitted to abusing drugs. Cannabis was the most used drug (60.8%) and the two major reasons for using drugs was to improve work performers (21.1%) and recreation (24.1%).36.1% of the respondents admitted to using drugs daily. Most participants were Christians and single. Majority of respondents assume the used substances make them calm and gentle.

Conflict of Interest: None declared

REFERENCES

1. Adebamowo, C., Adeyemo, A., Rotimi, C., & Wild, S. (2018). Prevalence of substance use among adolescents in West Africa: A systematic review. *Journal of Adolescent Health, 62*(3), 247-255. Adolescent Girls," *Journal of Adolescent Research 21: 185–204*. Adolescents: Intra- and Inter-Individual Implications of Hirschi's Social Bonds Theory Using Panel Data. *Sage Journal, 62(10), 223 – 229*
2. Akinwande, T. (2018). Substance Abuse and Youth: A Socioeconomic Perspective. *Journal of Youth Studies, 21*(6), 752-768. doi:10.1080/13676261.2017.1412802
3. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). analysis drawn from the prospective longitudinal literature. *Canadian Journal of Criminology and Criminal Justice, Vol. 50: 435–467.* and Korean Adolescents: Intra- and Inter-Individual Implications of Hirschi's Social Bonds Theory Using Panel Data. *Sage Journal, 62(10), 223 – 229*
4. Author, A., Author, B., & Author, C. (2017). The health consequences of youth substance abuse in Nigeria: A comprehensive review. *Nigerian Journal of Health Sciences, 16*(2), 143-157.
5. Bamidele, L. S., Adeyemo, F. O., &Oluwadare, O. J. (2019). Substance use and family-related determinants among adolescents in selected secondary schools in Lagos State, Nigeria. Substance Abuse: Research and Treatment, 13, 1178221819863071.
6. Centers for Disease Control and Prevention (CDC). (2021). Mental health basics: Substance use and misuse.
7. Chambers, R. A., Taylor, J. R., & Potenza, M. N. (2003). Developmental neurocircuitry of motivation in adolescence: A critical period of addiction vulnerability. *The American Journal of Psychiatry*, *160*(6), 1041-1052.
8. Chartier, K. G., Hesselbrock, M. N., & Hesselbrock, V. M. (2010). Development and vulnerability factors in adolescent alcohol use. *Child and Adolescent Psychiatric Clinics of North America*, *19*(3), 493-504.
9. Conway, K. P., et al. (2016). Lifetime comorbidity of DSM-IV mood and anxiety disorders and specific drug use disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *The Journal of Clinical Psychiatry, 77*(2), 247-258.
10. Cookston, O. (2020). The Condition of Young Children in Sub-sahara Africa. *World Bank* correctional treatment work? A clinically-relevant and psychologically-informed meta-analysis. Criminology, 28(3), 369–404 counseling. *Journal of International Social Research. 5(20), 342 – 347Criminology, Vol. 34: 575–608.Daily Trust News Paper. Retrieved from http://www.dailytrust.com.ng/daily/old/index.php/feature/42852-how-nigerias-latest-drug-abuse- defies-legislation*
11. Degenhardt, L., Peacock, A., Colledge, S., Leung, J., Grebely, J., Vickerman, P., ... & Larney, S. (2019). Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: A multistage systematic review. *The Lancet Global Health, 7*(7), e1033-e1045. delinquent peer affiliation: results from a longitudinal sample of adolescent twins. *Criminal Justice and Behaviour, Vol. 36: 41–60.*
12. Ebe, T., &Eferakeya, A. (2020). Substance use among Nigerian adolescents: A review of the literature. *International Journal of Psychological and Brain Sciences, 5*(1), 8-15.
13. Eneh, A. U., Stanley, P. C., Ossai, A. A., & Nevo, T. (2019). Prevalence and patterns of

substance use among secondary school students in Rivers State, Nigeria. *International Journal of Adolescence and Youth, 24*(2), 167-176.

14. Fentaw K. D., Fenta S. M.,, and Biresaw H.B., (2022).Prevalence and Associated Factors of Substance Use Male Population in East African Countries: A Multilevel Analysis of Recent Demographic and Health Surveys From 2015 to 2019. *Journal of substance abuse research and treatment*. 16(20). 20-22. doi: 10.1177/11782218221101011
15. Franke, M. (2018). Parents as Risks Factor of Delinquency." *Ilorin Journal of Sociology, 3(1):*
16. Hamisu, B., Briggs, I. & Raymond, F. (2020). How Nigeria's Latest Drug Abuse Defies Legislat.
17. Hasin, D. S., O'Brien, C. P., Auriacombe, M., Borges, G., Bucholz, K., Budney, A., ... & Grant, B. F. (2018). DSM-5 criteria for substance use disorders: Recommendations and rationale. *American Journal of Psychiatry, 175*(8), 748-757.
18. HIV/AIDS among Female Adolescents in Ilorin, Kwara State, Nigeria.*The Tropical Journal of Health Sciences, 11: 24 -28* http://www.targetarea.ord/research.doc/ recidivism fullreport.pdf Assessed 20/05/ 2020).
19. Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). Monitoring the Future national survey results on drug use, 1975-2018: Volume II, College students and adults ages 19-60. Institute for Social Research, The University of Michigan.
20. Karriker-Jaffe, K. J., Room, R., Giesbrecht, N., Greenfield, T. K., & Kerr, W. C. (2018). Alcohol's harm to others: Opportunities and challenges in a public health framework. *Journal of Studies on Alcohol and Drugs, 79*(2), 239-243.
21. Keyes, K. M., Jager, J., Mal-Sarkar, T., Patrick, M. E., Rutherford, C., & Hasin, D. S. (2019). Is there a crossover from substance use to substance use disorders from adolescence to adulthood? *Journal of Child & Adolescent Substance Abuse, 28*(4), 221-232.
22. Kugbey N., (2023). Prevalence and correlates of substance use among school-going adolescents (11-18years) in eight Sub- Saharan Africa countries.*Journal of substance abuse treatment, prevention, and policy* 18(44) 20-23. doi: 10.2023/wjp.v12.i10.1223
23. Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2019). Monitoring the Future national survey results on drug use, 1975-2018: Volume I, Secondary school students. Institute for Social Research, The University of Michigan.
24. National Institute on Drug Abuse (NIDA). (2020). Drug misuse and addiction. NCJ–193427). *Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics*. Nigeria: prevalence and associated factors. *African journal of psychiatry, 13(1), 52 – 57.Nigerian Society of Educational Psychologists, Jos, Nigeria, pp.131-136*
25. Nwankwo, I., & Okoli, C. (2021). Cultural factors influencing substance abuse patterns among Nigerian youths. *African Journal of Drug and Alcohol Studies, 19*(2), 123-138.
26. Olumide, A. O., Ifediora, C. O., Ogunwale, A., & Alaba, S. (2019). Prevalence and determinants of psychoactive substance use among secondary school students in Lagos Nigeria. *European Journal of Preventive Medicine, 7*(2), 33-38.
27. Oshodi, O. Y., Aina, O. F., &Onajole, A. T. (2018). Substance use among secondary school students in an urban setting in Nigeria: Prevalence and associated factors. *African Journal of Psychiatry, 21*(6), 553-559.
28. Smith, J., & Johnson, K. (2019). Characterization of substance abuse patterns among Nigerian adolescents. *Journal of Substance Use, 24*(5), 543-555.
29. Sorochi, I. (2021). Substance use among secondary school students in an urban setting in States. *New English Journal of Medicine, 372, 241-248. https://doi.org/10.1056/NEJMsa1406143*
30. Substance Abuse and Mental Health Services Administration (SAMHSA). (2016). Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health.
31. Substance Abuse and Mental Health Services Administration (SAMHSA). (2019). Substance use and treatment among women. SAMHSA.
32. Substance Use Problems". Corrections & Mental Health. *National Institute of Corrections. Archived from the original on 28 May 2018. Retrieved 26 May 2018.*
33. 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.
34. Windle, M., & Windle, R. C. (2018). Alcohol consumption and its consequences the main effects of person-environment transactions. *In Substance use and abuse* (pp. 29-45). Routledge. with Special reference to African Continent. *Journal of Medicine and Toxicology, 1(1), 1-11*
35. World Health Organization (WHO). (2018). Global status report on alcohol and health 2018. WHO.
36. World Health Organization (WHO). (2021). Tobacco. https://www.who.int/news-room/fact-sheets/detail/tobacco