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SUBSTANCE ABUSE AND YOUTH MENTAL HEALTH: IMPACTS OF MARIJUANA AND TRAMADOL USE, RISK AND PROTECTIVE FACTORS IN BENUE STATE, NIGERIA.

Author's Name: Yongo Dorcas Doom[1]

Affiliation:

1. I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

Corresponding Author Name & Email Id: Yongo Dorcas Doom, yongodorcas@gmail.com

ABSTRACT

This study investigated the impacts of marijuana and tramadol on the mental health of young people in Benue State, Nigeria, while also examining associated risk and protective factors. A descriptive cross-sectional design and mixed-methods approach were employed, with data collected through structured questionnaires. Analysis utilized descriptive statistics, chi-square tests, and logistic regression models. Findings revealed that tramadol users recorded a mean mental health score of 11.38 compared to 12.45 among non-users, while marijuana users had a score of 11.47 versus 12.80 for non-users ($p < 0.002$). Logistic regression results showed that peer pressure increased the likelihood of marijuana use by 8.41% and tramadol use by 12.62%, while media exposure reduced the probability of use by 12.24% and 20.46% respectively. Protective factors were also significant: youth empowerment programs reduced marijuana use by 10.43%, self-esteem by 13.30%, and future aspirations by 24.18%. For tramadol, protective influences included drug education (10.73%), family rules (27.07%), academic engagement (20.69%), and good mental health (18.45%). Model strength was moderate, with Pseudo R^2 values of 0.433 (marijuana) and 0.275 (tramadol) for risk factors, and 0.391 (marijuana) and 0.408 (tramadol) for protective factors. The study concluded that marijuana and tramadol use significantly affect youth mental health in Benue State and recommends integrating comprehensive drug education into school curricula and community outreach to raise awareness of the dangers of marijuana and tramadol misuse.

Keywords: Abuse, Youth, Tramadol, Marijuana, Mental Health, Risk.

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1.0 Introduction

Drug abuse and addiction have become pressing global public health concerns, particularly among adolescents and young adults. The misuse of substances such as marijuana, tramadol, nicotine, caffeine, and prescription medicines has been consistently associated with adverse medical, psychological, and social outcomes (Pan American Health Organisation, 2022; Gateway Foundation, 2021). Although drug initiation is often motivated by seemingly simple reasons, such as pleasure, pain relief, or anxiety reduction, sustained use frequently escalates into dependence, addiction, and long-term mental health complications (Geddes, Price, & McKnight, 2012).

Globally, cannabis remains the most widely consumed illicit drug, with first use increasingly concentrated in middle- to late-adolescence (Boland et al., 2022). Recent studies show alarming increases in marijuana and tramadol use, with one in five youths having experimented with these substances and one in eleven reporting regular use (Paul, 2020). Worldwide, approximately 210 million people consume illicit drugs annually, of whom 27 million are problem users, contributing to millions of premature deaths (UNODC, 2011). Such trends underscore the cross-cultural and cross-national dimension of substance abuse, which extends beyond health challenges to include security, economic, and developmental implications.

In Africa, the problem is particularly acute. South Africa records drug consumption rates twice the global average, with nearly 60% of crimes linked to substance use (South African Depression/Anxiety Groups, 2013). Nigeria presents a similarly troubling picture: about 15% of its adult population, roughly 14.3 million individuals, report significant use of psychotropic substances, nearly triple the global average (Yomi, 2019). Despite law enforcement interventions, illicit drugs remain readily available, and Nigerian youths represent the most vulnerable group, facing heightened risks of social, psychological, and economic instability.Bello. A (2024)

Tramadol has emerged as a specific concern in West Africa. Originally developed as a low-cost opioid analgesic, it has become one of the most misused prescription drugs due to its accessibility, affordability, and psychoactive effects (Grond et al., 2004; Klein et al., 2018). Non-medical use of tramadol is now widespread across the region, with seizures of illicit consignments escalating dramatically in Nigeria and neighbouring countries (Maiga et al., 2013; Saidou et al., 2024). Its combination with other substances, such as alcohol and cannabis, further amplifies its addictive potential and health risks, contributing to what some experts have termed an “opioid crisis of the poor” in Africa (Klein et al., 2018).

In Nigeria, marijuana and tramadol abuse among young people is increasingly linked to anxiety, depression, poor academic performance, delinquency, and risky sexual behaviour (NIDA, 2014; Abdu-Raheem, 2019). While existing studies have examined determinants of drug abuse such as peer

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influence, family background, and socio-economic pressures, less attention has been given to the direct implications for youth mental health within specific socio-cultural contexts. This study, therefore, focuses on Benue State, a culturally diverse region of Nigeria, to investigate the impact of marijuana and tramadol abuse on youths' mental health. By identifying both risk and protective factors, the study aims to contribute to the development of targeted prevention strategies and evidence-based interventions.

2.0 Literature Review

2.2 Theoretical Framework

2.2.1 Social Learning Theory

The Social Learning Theory, advanced by Bandura (1977), emphasizes that adolescents form their beliefs about antisocial behaviours by observing significant role models within their environment, such as parents, teachers, relatives, and peers. Exposure to substance-using role models has three major consequences: observation and introduction of substance-specific behaviours, reinforcement for early use, and eventual positive social and psychological outcomes that encourage continued use. Bandura (2006) further posits that individuals learn by observing and cognitively representing the behaviours of others, which may later be adopted. This theory underscores the role of coping skills and self-esteem in shaping behavioural outcomes, where those with strong coping mechanisms may avoid substance abuse, while those lacking them often resort to drugs or alcohol to manage stress (NACADA, 2006). The relevance of this theory lies in its assertion that through observation and internalisation, youths learn either to adopt or reject drug abuse. Negative reinforcements, such as health problems, social isolation, or school suspension, may lead to behavioural extinction, while parental modelling and values strongly influence adolescent substance use (Bandura, 2006).

2.2.2 Social Cognitive Theory

Bandura's Social Cognitive Theory (1986) builds upon the idea that role modelling shapes behaviour through both acquisition and reinforcement processes. This theory highlights the role of external influences, such as gender, age, and peer pressure, in determining adolescent risk-taking and drug abuse behaviours. Cognitive processes allow individuals to form symbolic representations of observed behaviours, which can subsequently be modelled. Within this framework, peer pressure is particularly influential in shaping youth decisions, as adolescents are more likely to imitate the behaviours of their friends. Social Cognitive Theory is therefore pertinent to understanding the contextual factors that predispose adolescents to substance abuse, particularly marijuana and tramadol, as well as the broader implications for society.

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2.3 Empirical Review

2.3.2 Impact of Marijuana and Tramadol on Mental Health

Empirical evidence demonstrates the significant mental health consequences of marijuana and tramadol use among young adults. Emeka (2020), through semi-structured interviews with Nigerian youths, revealed widespread awareness of the adverse effects of substance use, including headaches, eating disorders, psychomotor impairment, substance-induced aggression, hallucinations, seizures, and even deaths. Reports of cannabis-facilitated sexual violence highlight the broader social harms linked to drug abuse. Similarly, Okoye (2024), in a systematic review of 33 studies, documented neurobiological alterations, including changes in neurotransmitter levels and structural modifications in the brain, arising from substance use. Beyond individual health impacts, drug abuse imposes societal burdens through increased healthcare costs, criminal justice involvement, and the compounding effects of stigma on mental health treatment.

2.3.4 Risk and Protective Factors of Substance Abuse

Recent studies have identified several risk and protective factors influencing youth drug use. Gallagher et al. (2024), analysing two decades of clinical records, established that patients with cannabis-related disorders faced a significantly higher risk of head and neck cancers compared to non-users (RR 3.49; 95% CI, 2.78-4.39). Bedillion et al. (2025) further demonstrated that the co-use of cannabis and alcohol heightened subjective intoxication and negative effects compared to single-substance use, increasing the risk of hazardous cannabis use over time.

In Ghana, Lasong et al. (2023) investigated tramadol use among 600 university students and reported a lifetime prevalence of 17.8%. Co-use of tramadol with other substances was common (85.05%), with primary motivations linked to improving academic performance. Risk factors included male gender (AOR 2.673; 95% CI 1.590-4.493; $p < 0.0001$) and lifetime cannabis use (AOR 2.137; 95% CI 1.267-3.604; $p = 0.004$). Notably, younger age, single marital status, and living alone were additional predictors of higher lifetime use. These findings underscore the multifaceted nature of risk and protective factors, with social, demographic, and psychological elements shaping patterns of drug use.

3.0 Methodology

The study employed a descriptive cross-sectional design using a mixed-methods approach, combining quantitative and qualitative techniques. Data was collected using a structured questionnaire and analysed using descriptive statistics, including frequencies, percentages, and means, while inferential analysis employed Chi-square tests to examine gender differences in perceptions of adolescent

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substance use and the influence of educational level.

4.0 Results and Discussion

Effect of Tramadol and Marijuana use on Mental Health

The comparative analysis of the mental health scores of tramadol and marijuana on users and non-users among youth in Benue State is presented in Tables 1 and 2. The results show that tramadol users recorded a mean mental health score of 11.38, while non-users had a slightly higher mean score of 12.45. This suggests that, on average, non-users exhibit more mental health challenges, as higher scores indicate increasing mental health concerns or distress. The results in Table 2 showed that marijuana users had a mean mental health score of 11.47, while non-users had a higher mean score of 12.80 which was significant at 1% ($p<0.002$). This suggests that non-users in this sample reported more mental health distress than users. While one might expect marijuana and tramadol use to be associated with worsened mental health, this result suggests that these substance users may be self-medicating to manage existing mental health symptoms. On the strength of this result, the hypothesis (H01) which state that "there is no significant relationship between marijuana and tramadol use on the mental health youths in Benue State" is thus REJECTED and alternate hypothesis accepted.

Table 1:Effect of Tramadol use on Mental Health

Youth category	Mean Mental health score	Mean Difference	t-value	P-value
Tramadol users' mental health score	11.38	-1.074	-1.728	0.085*
Non-tramadol users' health score	12.45			

Source: Field survey data, 2025 *Sig at 10%

Table 2 :Effect of Marijuana use on Mental Health

Youth category	Mean Mental health score	Mean Difference	t-value	P-value
Marijuana users'	11.47	-1.330	-1.330	0.002***
Non-Marijuana users'	12.80			

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Source: Field survey data, 2025 ***Sig at 1%

Effect of Risk Factor on Marijuana Use

Table 3 presents the results of a logistic regression model evaluating the effect of risk factors on marijuana use. The model is statistically significant as indicated by the Likelihood Ratio Chi-square value of 34.86 with a p-value < 0.001. Pseudo R^2 of 0.433 suggests that approximately 43.3% of the variation in marijuana use is accounted for by the independent variables.

The coefficient of peer pressure was positive and significant at 1% with a marginal effect of 8.41, implying that individuals who are influenced by peer pressure are 8.41% more likely to use marijuana, holding all other factors constant. A qualitative study by Tam and Foo (2012) also identified peer influence as one of the key determinants in the abuse of drugs.

Media and entertainment also showed a negative but significant effect, with a coefficient of 1% and a marginal effect of 12.14. This suggests that exposure to media content is associated with a 12.24% reduction in the likelihood of marijuana use.

Table 3 :Effect of Risk Factor on Marijuana Use

Variables	Coefficient	Std. Error	Z	p>/z/	Marginal Effect
Peer pressure	2.86	0.87	3.28	0.001***	8.41
Family	0.35	1.56	0.22	0.825	1.02
Media and entertainment	-4.16	1.17	-3.57	0.000***	12.24
Constant	3.23	1.65	1.95	0.051*	
LR Chi square	34.86			0.000***	
Pseudo R^2	0.4330				

Source: Field survey data, 2025 *Sig at 10%; ***Sig at 1%

Effect of Risk Factor on Tramadol Use

Table 4 shows the logistic regression model result of the influence of selected risk factors on tramadol use. The result showed a Pseudo R^2 of 0.2748 implying that approximately 27.5% of the variation in tramadol use is accounted for by the selected risk factors. Likelihood Ratio Chi-square of 48.31 and a

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p-value < 0.001, confirming that the included variables significantly contribute to predicting tramadol use.

Peer pressure had a positive and statistically significant (1%) effect on tramadol use. The marginal effect of 12.62 implies that individuals influenced by peer pressure are 12.62% more likely to use tramadol; that is, peer-focused intervention programs such as peer-led awareness campaigns could effectively reduce tramadol use. This result was consistent with the findings of Chukwu et al. (2017), who reported substance abuse among Secondary School Students in Mkar Metropolis, Gboko, Benue State, to be influenced by peer pressure

Media and entertainment were significant at 1% but a negative effect on the use of tramadol among the youth. The marginal effect of 20.46 means that exposure to certain types of media content reduces the likelihood of tramadol use by 20.46%. This implies that carefully designed media interventions and awareness programs could play a critical role in reducing tramadol misuse, especially if targeted through platforms popular among youth.

Table 4: Effect of Risk Factor on Tramadol Use

Variables	Coefficient	Std. Error	Z	p>/z/	Marginal Effect
Peer pressure	1.36	0.52	2.60	0.009***	12.62
Family	1.53	0.89	1.73	0.084	14.14
Media and entertainment	-2.21	0.47	-4.66	0.000***	20.46
Constant	-0.98	0.93	-1.05	0.292	
LR Chi square	48.31			0.000***	
Pseudo R^2	0.2748				

Source: Field survey data, 2025 *Sig at 10%; ***Sig at 1%

Effect of Protective Factor on Marijuana Use

Table 5 presents the logistic regression model results of the influence of protective factors on marijuana use. The result revealed a Pseudo R^2 of 0.3905, indicating that approximately 39.1% of the variation in marijuana use is explained by the selected variables. The Likelihood Ratio Chi-square of 31.25 with a p-value of 0.003 confirms that the model is statistically significant and that the variables included contribute meaningfully to predicting marijuana use. Youth empowerment programs and job

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opportunities, Self-esteem and self-confidence, and Future goals and aspirations were found to influence marijuana use by youths at varying levels of significance.

Youth empowerment programs and job opportunities had a negative and statistically significant (5%) effect on marijuana use. The marginal effect of 10.43 implies that individuals who have access to empowerment and employment initiatives are 10.43% less likely to use marijuana. This finding suggests that peer-focused and community-based intervention programs aimed at providing meaningful engagement for youth and opportunities for gainful employment could help reduce marijuana use. Inemesit et al. (2020) reported that poverty and unemployment were among the determinants of substance abuse among final year students of University of Uyo.

Self-esteem and self-confidence also had a negative and statistically significant (10%) effect on marijuana use. The marginal effect of 13.30 indicates that individuals with higher self-esteem are 13.30% less likely to engage in marijuana use. These attributes empower youths to resist peer pressure and make positive and self-respecting choices.

Future goals and aspirations had a negative and statistically significant (5%) effect on marijuana use. The marginal effect of 24.18 suggests that individuals with strong aspirations are 24.18% less likely to engage in marijuana use. Future goals and aspirations protect youth from substance abuse by giving them a sense of purpose and motivation to avoid behaviours that jeopardize their dreams.

Table 5: Effect of Protective Factor on Marijuana Use

Variables	Coefficient	Std. Error	Z	p>/z/	Marginal Effect
Itd	0.04	0.96	0.04	0.968	0.14
Community stigma	-0.46	1.49	-0.33	0.742	1.62
Effective drug law & enforcement	-0.05	1.31	-0.04	0.970	0.17
Youth empowerment programs & job opportunities	-2.98	1.49	-2.01	0.045**	10.43
Family rules on drug & alcohol use	0.95	1.58	-0.60	0.546	3.34
Self-esteem & self confidence	-3.81	2.17	-1.75	0.080*	13.30
Future goals and aspiration	6.92	3.04	2.28	0.023**	24.18
Knowledge of the dangers of drug abuse	-2.32	1.94	-1.20	0.231	8.11
Strong decision-making skills	-2.56	2.06	-1.24	0.215	8.93

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Constant	7.50	2.53	2.96	0.003***	
LR Chi square	31.25			0.003***	
Pseudo R^2	0.3905				

Source: Field survey data, 2025 *Sig at 10%; **Sig @ 5%; ***Sig at 1

Effect of Protective Factor on Tramadol Use

Table 6 presents the logistic regression model results of the influence of protective factors on marijuana use. The result revealed a Pseudo R^2 of 0.4080, indicating that approximately 41% of the variation in tramadol use is explained by the selected variables. The Likelihood Ratio Chi-square of 66.78 with a p-value of 0.000 confirms that the model is statistically significant and that the variables included contribute meaningfully to predicting tramadol use. Information or training received on drug abuse, Family rules on drug and alcohol use, Academic success and engagement and Good mental health were found to influence tramadol use by youths at varying levels of significance.

Information or training received on drug abuse had a negative and significant (10%) effect on the use of tramadol, with a coefficient of -1.33 and a p-value of 0.089. The marginal effect of 10.73 indicates that individuals who received drug education are 10.73% less likely to use Tramadol. This reinforces the importance of drug education and awareness programs as prevention strategies.

Family rules on drug and alcohol use also had a negative and significant (5%) effect on Tramadol use. The coefficient of -3.35 and p-value of 0.017 indicate that stronger family rules are associated with a lower likelihood of Tramadol use. This finding underscores the protective role of structured family environments. According to a report by Danso and Anto (2021), Participants whose parents were very strict on them during childhood were 33% less likely to abuse tramadol than those whose parents were unconcerned.

Academic success and engagement are another variable with a negative and significant (10%) effect on Tramadol use. The marginal effect of 20.69 suggests that those who are academically successful are 20.69% less likely to use Tramadol. Fostering a structured lifestyle, boosting self-worth, and reducing idle time shield youth from risky behaviours and substance intake.

Good mental health also showed a negative relationship to use of tramadol by youth but statistically significant at 10%. The marginal effect of 18.45 implied that individuals with good mental health are 18.45% less likely to engage in Tramadol use. This supports existing literature that mental well-being serves as a buffer against substance use (Adewale et al., 2021).

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Table 6: Effect of Protective Factor on Tramadol Use

Variables	Coefficient	Std. Error		p>/z/	Marginal Effect
Involvement in social or religious group activities	-0.04	1.03	0.04	0.966	0.35
Received information/training on drug abuse	-1.33	0.78	-1.70	0.089*	10.73
Strong religious belief	0.19	0.82	0.23	0.820	1.50
Cultural values	-1.95	1.39	-1.40	0.161	15.72
Community stigma	-0.32	1.04	-0.30	0.763	2.54
Youth friendly, mental health services	-1.27	0.86	-1.48	0.138	10.28
Effective drug laws & enforcement	1.21	0.85	1.43	0.153	9.79
Youth empowerment program/job opportunities	-0.34	0.71	-0.47	0.639	2.71
Drug education & awareness campaign	0.30	0.86	0.35	0.730	2.40
Strong parent child relationship	1.11	1.36	0.81	0.417	8.94
Parental supervision & monitoring	-0.05	1.27	-0.04	0.970	0.39
Family rules on drug & alcohol use	-3.35	1.40	-2.39	0.017**	27.07
Family involvement in education & extracurricular activities	-0.29	1.23	-0.24	0.811	2.37
Supportive family environment	0.46	1.36	0.34	0.734	3.74
Friends who do not use substance	2.56	1.63	1.57	0.115	20.70
Social, religious & cultural groups	-0.40	1.07	-0.38	0.705	3.26
Mentorship	0.10	0.64	0.15	0.877	0.80
Self-esteem & self confidence	1.35	0.93	1.45	0.148	10.90
Future goals & Aspiration	-0.36	1.62	-0.22	0.825	2.70

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Clear knowledge of the dangers of drug abuse	1.46	1.07	1.37	0.171	11.82
Strong decision-making skills	-1.38	1.80	-0.77	0.443	11.16
Academic success & engagement	-2.56	1.54	-1.67	0.098*	20.69
Good mental health	-2.28	1.31	-1.74	0.082*	18.45
Constant	2.11	1.52	1.38	0.166	
LR Chi square	66.78			0.000***	
Pseudo R^2	0.4080				

Source: Field survey data, 2025 *Sig at 10%; **Sig @ 5%; ***Sig at 1%

5.0 Conclusion and Recommendations

This study provides critical evidence that marijuana and tramadol use significantly affect youth mental health in Benue State. While the results suggest that users may be self-medicating to cope with existing mental health challenges, substance abuse nonetheless exposes them to heightened risks of dependence and long-term psychological harm. Peer pressure consistently proved to be a key driver of drug use, highlighting the influence of social networks on youth behaviour. Conversely, protective factors such as empowerment initiatives, academic success, strong family involvement, and mental well-being demonstrated significant potential in reducing substance misuse. Overall, the findings emphasize that addressing youth substance abuse requires a multi-dimensional approach that integrates psychological, social, and structural interventions tailored to the unique socio-cultural realities of Nigerian youths.

Based on the conclusion, the study recommends the following;

i. Development of peer-led awareness campaigns and mentorship programs to counteract peer pressure and promote positive behavioural norms among youths.

ii. Expanded access to job opportunities, vocational training, and entrepreneurship programs to reduce idle time and provide constructive alternatives to drug use.

iii. Encouraging parental supervision, structured family rules, and active participation in education and extracurricular activities to build resilience against drug abuse.

iv. Integrating comprehensive drug education into school curricula and community outreach to raise awareness of the dangers of marijuana and tramadol misuse.

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SEP 2025 | Vol. 06 Issue 04
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References

1. Abdulraheem, A. F. (2019). Social interaction between parents and adolescents' predisposition to substance use [Unpublished BSc thesis]. Niger Delta University, Wilberforce Island, Gloryland Campus, Amassoma, Bayelsa State, Nigeria.
2. Note: I could not locate an online copy of the BSc thesis; related work by the same author (papers on adolescent substance use in Yenagoa) is available.
3. Adewale, B. A., Adeniyi, Y. C., Adeniyi, O. A., Ojediran, B. C., Aremu, P. S., Odeyemi, O. E., & Owoeye, I. P. (2021). Psychological impact of COVID-19 pandemic on students at the University of Ibadan in Nigeria. Journal of Education, Society and Behavioural Science, 34(1), 79–92. https://doi.org/10.9734/jesbs/2021/v34i130295.
4. Bandura, A. (1977). "Social learning theory". Englewood Cliffs, NJ: Prentice Hall.
5. Bandura, A. (1986). "Social foundations of thought and action: A social cognitive theory" Prentice-Hall, Inc
6. Bandura, A. (2006). Toward a psychology of human agency. "Perspectives on Psychological Science, 1" (2), 164–180.
7. Bedillion, M. F., & Ansell, E. B. (2025). The association between cannabis and alcohol co-use and momentary subjective effects: Risks for increasingly hazardous cannabis use. "Drug and Alcohol Dependence", 269, 112595
8. Bello, A. (2024, March 2) Factors Driving Youths Substance use in Nigeria
9. Boland, R. J., Verduin, M. L., & Ruiz, P. (Eds.). (2022). Kaplan & Sadock's synopsis of psychiatry (12th ed.). Lippincott Williams & Wilkins / Wolters Kluwer.
10. Bradford, L. D. (2002). CYP2D6 allele frequency in European Caucasians, Asians, Africans and their descendants. Pharmacogenomics, 3(2), 229–243. https://doi.org/10.1517/14622416.3.2.229.
11. Chukwu, E. O., Pius, V. T., Fiase, T. M., Haruna, H., Terkuma, C., & Evangeline, A. C. (2017). Effects of substance/drug abuse on the academic achievement of secondary school students in Mkar Metropolis, Gboko, Benue State. International Journal of Psychology and Brain Sciences, 2(2), 40–45. https://doi.org/10.11648/j.ijpbs.20170202.12.
12. Danso, M., & Anto, F. (2021). Factors associated with tramadol abuse: A cross-sectional study

DOI Link :: https://doi-ds.org/doilink/10.2025-67748644/UIJIR

among commercial drivers and assistants in the Accra Metropolitan Area of Ghana. Drugs: Real World Outcomes, 8(3), 337–347. https://doi.org/10.1007/s40801-021-00247-6.

13. Dumbili, E. W. (2020). Drug-related harms among young adults in Nigeria: Implications for intervention. Journal of Human Behavior in the Social Environment, 30(8). https://doi.org/10.1080/10911359.2020.1790462.

14. Emeka W. Dumbili (2020) Drug-related harms among young adults in Nigeria: Implications for intervention. Journal of Human Behaviour in the Social Environment Volume 30, 2020 - Issue 8

15. Gallagher, T. J., Chung, R. S., Lin, M. E., et al. (2024). Cannabis Use and Head and Neck Cancer. JAMA Otolaryngology–Head & Neck Surgery*. Published online August 8, 2024. doi:10.1001/jamaoto.2024.2419

16. Geddes, J., Price, J., & McKnight, R. (2012). "Psychiatry" (4th ed.). OUP Oxford.

17. Grond, S., & Sablotzki, A. (2004). Clinical pharmacology of tramadol. Clinical Pharmacokinetics, 43(13), 879–923. https://doi.org/10.2165/00003088-200443130-00004. periodicos.capes.gov.br

18. Inemesit, A. U., Uwem, C. E., & Emmanuel, A. J. (2020). Determinants of substance abuse among final year students of University of Uyo, Akwa Ibom State, Nigeria. "International Journal of Research and Scientific Innovation", "7" (6), 193-198

19. Klein, A., Ane, M.-G., Madukwe, A. U., Dirisu, O., Strijdom, J., Kpatinvoh, F., et al. (2018). Tramadol in Africa: Scarcity and excess of pain medication in a poorly regulated market (policy briefing). International Drug Policy Consortium (IDPC).

20. Lasong, J., Kpeme, F. K., Boateng, S., Nortu, T. A., & Chen, Y. (2023). Prevalence and factors associated with tramadol use among university students in Ghana: a cross-sectional study. "BMC Psychiatry", 23(1), 58

21. Maiga, D., Seyni, H., & Sidikou, A. (2013). Social representations of consumption of tramadol in Niger: Perceptions and knowledge of communities — issues for action. African Journal of Drug & Alcohol Studies, 12(1), 53–61.

22. National Institute on Drug Abuse. (2014). Prescription drug abuse (Research report). National Institute on Drug Abuse.

DOI Link :: https://doi-ds.org/doilink/10.2025-67748644/UIJIR

© UIJIR | ISSN (O) – 2582-6417
SEP 2025 | Vol. 06 Issue 04
www.uijir.com

23. Okoye, N. (2024). Negative Implications of Drug and Substance use on Mental Health. "ResearchGate".

24. Pan American Health Organization. (2022). Mental health (PAHO topic page). https://www.paho.org/en/topics/mental-health. Pan American Health Organization

25. Paul RD. The Wiley encyclopedia of health psychology. Vol. 1. Hoboken: Wiley-Blackwell; 2020. p. 262–8

26. Paul, R. D. (2020). In The Wiley Encyclopedia of Health Psychology (Vol. 1, pp. 262–268). Wiley-Blackwell. https://doi.org/10.1002/9781119057840.

27. South African Depression and Anxiety Group. (2013). "Substance abuse" [Brochure]. Johannesburg, South Africa: Author.

28. Tam, C. L., & Foo, Y. C. (2012). Contributory factors of drug abuse and the accessibility of drugs. International Journal of Collaborative Research on Internal Medicine & Public Health, 4(9), 1621.

29. The National Academic Advising Association (NACADA). (2006). "Advising students on academic probation". NACADA Clearinghouse of Academic Advising Resources.

30. United Nations Office on Drugs and Crime. (2011). "World Drug Report 2011". United Nations Publication.

31. Yomi, K. (2019, June 26). 14.3 million Nigerians are drug addicts, says report. "The Punch".

DOI Link :: https://doi-ds.org/doilink/10.2025-67748644/UIJIR