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PERCEIVED INFLUENCE OF SUBSTANCE ABUSE AND MODERATING FACTOR OF AGE AND GENDER ON VOILENT CRIME AMONG YOUTHS IN KEFFI LOCAL GOVERNMENT AREA OF NASARAWA STATE, NIGERIA

ILIYA Enudi Sarah, Monday Akawu , Abubakar Musa Tafida, Sani Oshishepo, & Michael Aloko Philip
[1,2,34]**Department of Psychology, Faculty of Social Sciences, Nasarawa State University, Keffi.email Reachenudi @gmail.com 08037324400**

ABSTRACT

This study examined Perceived influence of substance abuse and moderating factor of age and gender on violent crime among youths in keffi Local Government Area of Nasarawa State, Nigeria. This study investigated the Perceived influence of substance abuse and moderating factor of age and gender on violent crime among youths in keffi Local Government Area of Nasarawa State, Nigeria. A survey research design was used to select a sample of 207 participants, population 429. Their demographic characteristics (53.6% were female, while 46.4% were male.), In addition to providing demographic data, participants responded to (3) standardized self-report, including socio-demographic questionnaires. Data was analyzed using appropriate descriptive and inferential statistics. On the whole, three hypotheses were formulated and inferentially tested at 0.05 level of significant, using simple linear and multiple regression analysis. Findings revealed that Substance abuse had a significant positive influence on violent crime among youths (β = .514, t = 10.981, p < .05, 95% CI [.481, .697]. In addition to the finding, revealed that the interaction between substance abuse and age was statistically significant among (β = .192, t = 2.885, p = .05). Given these results, findings confirm all the hypotheses formulated for the study and highlight the importance of addressing psychological and behavioural risk factors to reduce the harmful substances and violent crime among youths the study concluded and recommended that Government agencies and community stakeholders should strengthen efforts to control the availability of psychoactive substances.

Keywords: Substance abuse, age, gender and violent crime

Introduction

Violent crime among youths has become a major global social problem affecting communities, public safety, and national development. Youth violence generally refers to harmful acts committed by individuals between the ages of 10 and 29, including assault, robbery, gang violence, and homicide. According to the World Health Organization,
(WHO) youth violence is one of the leading causes of death among people aged 15–29 years worldwide, accounting for approximately 193,000 deaths annually, representing about 40% of allglobal homicides (WHO, 2024). This indicates that violent crime among youths remains a serious public health and security concern across many societies. Researchers argue that rapid urbanization, poverty, unemployment, peer influence, and exposure to violence contribute significantly to the rise in youth violent crime (De Nadai et al., 2020).

Violent crime among youths has become a major public health, social, and security concern worldwide, particularly in low- and middle-income countries where

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socioeconomic inequalities, unemployment, and substance abuse are increasing. Violent crime includes behaviors such as armed robbery, assault, homicide, rape, cult-related violence, kidnapping, and other aggressive acts that threaten public safety. The World Health Organization (WHO) recognizes youth violence as one of the leading causes of premature death and disability among individuals aged 15–29 years, emphasizing that substance abuse is one of the strongest behavioral risk factors associated with violent offending (WHO, 2022).

Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol, cannabis, opioids, codeine, tramadol, cocaine, and other illicit drugs, in ways that impair physical, psychological, and social functioning. In recent years, Nigeria has experienced a significant rise in substance abuse among young people, making it a growing public health challenge. Evidence suggests that psychoactive substances alter cognitive functioning, impair judgment, increase impulsivity, and reduce self-control, thereby increasing the likelihood of aggressive and violent behaviors among users (Adewuya et al., 2026).

Nigeria has one of the largest youth populations in Africa, with over 70% of its population below 30 years of age. While this demographic structure presents enormous developmental opportunities, it also poses serious challenges due to rising unemployment, poverty, social exclusion, insecurity, and widespread availability of illicit substances. These factors have contributed to increasing rates of violent crimes committed by youths across different regions of the country. Studies indicate that many violent offenders have histories of alcohol or drug abuse, suggesting a strong relationship between substance use and criminal behavior (Adams et al., 2023). The prevalence of substance abuse among Nigerian youths has increased considerably during the past decade. A recent cross-sectional study conducted among youths in the Abuja Municipal Area Council reported that 67.4% of respondents had abused at least one psychoactive substance. Alcohol was the most commonly abused substance (72.0%), followed by cigarettes/tobacco (56.0%) and cannabis (48.0%). The study concluded that increasing substance abuse among Nigerian youths poses significant risks for antisocial and violent behaviors if effective preventive interventions are not implemented.

Age has consistently been identified as an important demographic determinant of violent crime. Criminological theories suggest that violent offending peaks during late adolescence and early adulthood because young people are more likely to exhibit impulsive behavior, sensation-seeking tendencies, emotional instability, and susceptibility to peer influence. Research conducted among Nigerian adolescents by Adewuya et al. (2026) demonstrated that younger adolescents and young adults showed higher vulnerability to substance use disorders than older participants, indicating that age plays a significant role in both substance abuse and related violent behaviors. Gender also plays a significant role in explaining variations in violent criminal behavior. Numerous studies have consistently shown that males engage in substance abuse and violent crime more frequently than females. Biological, psychological, and sociocultural explanations have been proposed to account for these differences. Males generally demonstrate greater risk-taking behavior, physical aggression, and sensation-seeking tendencies, whereas females tend to exhibit higher levels of emotional regulation and social conformity. Recent findings by Officha et al. (2026) further showed that gender significantly moderates the relationship between psychosocial characteristics and substance use among

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adolescents, highlighting that male youths remain at greater risk of engaging in risky behaviors associated with violence.

Gender are widely recognized as important moderating variables in studies involving youth behaviour, development, and social outcomes. A moderating factor is a variable that influences the strength or direction of the relationship between independent and dependent variables. In youth research, age and gender often determine how social, psychological, and environmental factors affect behaviours, attitudes, and developmental outcomes.Several studies demonstrate that age moderates behavioural patterns among youths, especially during adolescence when developmental changes occur rapidly. For instance, a study conducted among 326 adolescents in Uganda found that age significantly moderated the relationship between gender and risky sexual behaviour. The findings showed that the gender gap in risky behaviour was minimal during early adolescence but increased significantly in late adolescence, where male youths reported substantially higher levels of risky behaviour than females (Nkuba, R, & Atibuni, 2025). The study also reported that 56.7% of the participants were female with an average age of 17.3 years, highlighting how behavioural differences become more evident as adolescents grow older.

Similarly, recent public health research indicates that age differences influence youth knowledge, attitudes, and behavioural choices**.** The research further indicated that age interacts with gender and education status to influence awareness and behavioural outcomes among youths (Ssali et al., 2025). These findings suggest that interventions targeting youth populations must consider age differences, as developmental stages influence how young people interpret information and adopt behavioural practices.

Gender has also been identified as a key moderating factor affecting youth behaviour and social adjustment. Research examining adolescents' knowledge and sexual activity found that gender significantly influenced the relationship between knowledge and behaviour. In the study of 1,246 adolescents aged 18–19, boys with lower sexual knowledge were more likely to engage in early and intense sexual activity compared to girls, indicating that gender shapes behavioural responses to knowledge and information (Kowalewska et al., 2023/2024). This suggests that gender norms and expectations influence how youths apply knowledge in their daily lives.

Statement of the Problem

Violent crime among youths has become a major social problem in many parts of Nigeria, particularly in urban and semi-urban communities. The increasing involvement of young people in crimes such as armed robbery, cultism, assault, and drug-related violence has raised serious concern among scholars, policy makers, and community leaders. One of the major factors associated with this trend is substance abuse among youths. Studies have shown that the abuse of psychoactive substances such as cannabis, alcohol, codeine syrup, and tramadol significantly contributes to aggressive behaviour and criminal activities among young people. In Nigeria, approximately 14.4% of the population aged 15–64 are involved in drug abuse**,** which represents about 14.3 million people, a large proportion of whom are youths (Ulagba & Adedayo, 2024).

Researchers have also highlighted that substance abuse has a strong relationship with youth crime and social disorder. According to Adams and Ibrahim (2023), substance

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abuse alters the behaviour of young people and often increases their likelihood of engaging in criminal activities such as theft, property crime, and violent behaviour. Peer pressure, unemployment, family instability, and easy access to drugs are among the major factors encouraging youths to abuse substances and participate in crime. The authors argued that the psychopharmacological effects of drugs can impair judgment and increase aggression, thereby contributing to violent crime in many Nigerian communities.

Age has been identified as an important determinant in substance abuse and violent behaviour among youths. Early exposure to drugs increases the likelihood of long-term addiction and involvement in crime during adolescence and early adulthood (Shehu & Idris, 2018). Early initiation into substance abuse is therefore considered a significant risk factor for youth delinquency and violent crime.

This disparity is often attributed to cultural expectations, higher risk-taking behaviour among males, and greater exposure to criminal peer groups. However, recent studies have also shown that female involvement in substance abuse is gradually increasing, as about one out of every four drug users in Nigeria is a woman (National Drug Law Enforcement Agency report cited in Chinedu, 2014).

Furthermore, the prevalence of drug abuse among Nigerian youths is alarmingly high. Reports indicate that about 40% of Nigerian youths are involved in drug use, and many of them lack access to proper treatment or rehabilitation services. This situation increases the risk of criminal activities and social instability in communities. The rising rate of substance abuse has therefore been described as a major threat to youth development and national security (Yusuf-Gombe, 2024). Despite the growing concern about youth crime and substance abuse in Nigeria, there is limited empirical research focusing specifically on Keffi Local Government Area of Nasarawa State**.** Keffi, being a rapidly growing urban area with a large population of youths and students, faces increasing challenges related to drug use, youth violence, and social deviance.

Research Questions

This study will answer the following research questions:

i. What is the influence of substance abuse on violent crime among Youths in Keffi Local Government Area of Nasarawa State, Nigeria?
ii. How does age moderate the relationship between substance abuse and violent crime among Youths in Keffi Local Government Area of Nasarawa State, Nigeria?

Research Hypotheses

The following hypotheses were formulated for the study:

1. There will be a significant influence of substance abuse on violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria.
2. Age will significantly moderate the relationship between substance abuse and violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria.

Objective of the Study

The study is designed to achieve the following objectives;

i. To examine the influence of substance abuse on violent crime among Youths in Keffi Local Government Area of Nasarawa State, Nigeria.
ii. To evaluate how age moderate the relationship between substance abuse and violent crime among Youths in Keffi Local Government Area of Nasarawa State.

Significance of the Study

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This study is significant because it will contribute to a better understanding of the relationship between substance abuse, age, gender, and violent crime among youths in Keffi Local Government Area of Nasarawa State. Violent crime and drug abuse have become growing social problems in many Nigerian communities, particularly among young people.

The study will be beneficial to government and policy makers by providing empirical evidence on the extent to which substance abuse contributes to violent crime among youths.

The findings may help government agencies design effective policies and intervention programs aimed at reducing drug abuse and youth violence.

It will also assist relevant authorities such as the National Drug Law Enforcement Agency (NDLEA) and other security agencies in developing strategies for controlling drug distribution and preventing youth involvement in criminal activities.

Scope of the Study

The scope of this study covers Independent variables; “substance abuse, age and gender” and Dependent variable; “violent crime**.** The study was conducted among youths in Keffi Local Government Area of Nasarawa State, Nigeria

Conceptual Clarification/Literature review

This section presents the conceptual definitions of key variables in the study and critically reviews related empirical literature to provide a theoretical and research-based foundation for understanding the relationship between of substance abuse and moderating factor of age and gender on violent crime. Concept of substance abuse gender on violent crime were review in this section.

Age and violent crime

Age and gender as the most significant demographic predictors of violent offending and victimization. While the "age-crime curve" which suggests that criminal behavior peaks in late adolescence and early adulthood before declining remains a foundational concept, recent studies focus on how these patterns are modulated by environmental stressors, such as the COVID-19 pandemic and systemic socio-economic factors.

Contemporary research identifies "emerging adulthood" (ages 18–29) as a critical high-risk period for both the perpetration of and exposure to violent incidents (Motley et al., 2020). For example, studies on youth populations (ages 8–18) have found that individual variables, including age and impulsive behaviors, are strongly correlated with violent maladjustment, particularly in disadvantaged socio-economic contexts (Piccininno & Perrotta, 2024). In the post-pandemic era, specific behavioral triggers such as "gaming non-pathological abuse" have been empirically linked to increased aggressive and violent behaviors among adolescents (Piccininno & Perrotta, 2024). Furthermore, young men remain the most likely demographic to engage in risk-taking and reactive aggression globally (Reis & Meyer, 2024).

Gender remains a primary lens for analyzing violent crime, particularly regarding domestic and intimate partner violence (IPV). Recent reviews indicate a persistent gender gap, with men comprising the majority of perpetrators of lethal violence, such as femicide, which is often driven by inequitable gender norms and rigid patriarchal structures (Lomazzi, 2023; Reis & Meyer, 2024). However, recent data also sheds light

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on the victimization of men; a meta-analysis of studies through 2022 found that approximately 20% of men experience physical violence and 44% experience psychological violence from intimate partners, though they are significantly less likely to seek help due to the stigma surrounding "masculinity" (Kunasagran et al., 2024). In school settings, while boys are traditionally seen as more frequent perpetrators of physical bullying, some recent findings suggest that girls may experience higher rates of indirect and relational victimization (Ahmad & Smith, 2022; Okumu et al., 2020).

The intersection of age, gender, and race significantly influences the likelihood of experiencing state-sanctioned violence. For instance, Black emerging adult men face a disproportionately high risk of being killed by police compared to other demographics (Motley et al., 2020). Conversely, women in low- and middle-income countries (LMICs) faced heightened risks of domestic violence during pandemic-related lockdowns, where confined environments and lack of financial independence acted as significant barriers to safety (Kunasagran et al., 2024).

Recent longitudinal studies have re-examined the "age-crime curve" through the lens of neurobiological development. Empirical evidence suggests that the decline in violent offending after age 25 is not merely a social shift but is linked to the maturation of the prefrontal cortex, which governs impulse control (Remington et al., 2024). However, recent data indicates a "delayed desistance" in urban environments where economic instability and lack of employment opportunities for "emerging adults" (ages 18–25) prolong the period of active offending (Aaltonen et al., 2022). In contrast, adolescent violent behavior (ages 12–17) is increasingly being linked to "digital provocation," where physical altercations are preceded by social media conflicts, a trend that has accelerated post-2020 (Suleman et al., 2023).

While men remain the primary perpetrators of serious physical violence, empirical work by Kim and Merlo (2021) suggests that the gender gap in juvenile violent offending is narrowing in certain categories, such as simple assault and cyber-violence. Furthermore, gender-based violence (GBV) research has shifted toward understanding the "normalization of aggression" in digital spaces. For women, the risk of lethal violence remains highest within the home; recent meta-analyses confirm that approximately 38% of all murders of women are committed by intimate partners, a statistic that remained stubbornly high through 2025 despite increased global awareness (Reis & Meyer, 2024).

Recent empirical models emphasize that age and gender do not act in isolation. The "Social Control Theory" has been updated to reflect that for young males, the presence of "pro-social" institutions (school, stable work, or community programs) acts as a significant buffer against violent impulses (Ahmad & Smith, 2022). Conversely, in regions with high "toxic masculinity" scores, gender-based violence is frequently used as a tool for social status among male peer groups, particularly in the 15–24 age bracket (Lomazzi, 2023).

Substance Abuse and Violent Crime

Relationship between substance use disorders (SUD) and violent criminal behavior. Current literature suggests that while the relationship is not always strictly causal, substance abuse significantly increases the likelihood of both committing and being a victim of violent acts through psychopharmacological, economic, and systemic pathways.

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Recent studies emphasize that specific substances carry higher risks for aggressive outcomes. Research indicates that heavy alcohol consumption remains a primary driver of violent behavior, particularly among individuals already experiencing anger or frustration (Belfrage et al., 2022). Empirical data from 2022 highlights that approximately 19% of high school learners who engage in underage drinking report involvement in physical fights (Mathibe et al., 2022). Furthermore, the frequent and extended use of psychostimulants, such as cocaine and methamphetamine, is strongly correlated with increased displays of aggression (Belfrage et al., 2022). Unlike these substances, some research notes that cannabis use is generally associated with a decrease in aggressive behavior, though it may still be linked to non-violent drug offenses (Piccininno & Perrotta, 2024).

A significant focus of the 2025 literature is the role of Adverse Childhood Experiences (ACEs) in the development of both drug addiction and criminal trajectories. Empirical findings demonstrate that greater severity of ACEs such as physical or sexual abuse makes individuals significantly more likely to develop SUDs in adulthood, which in turn leads to increased risk-taking and violent behavior (He et al., 2022). In longitudinal studies, early onset of substance use (often occurring around age 12–13) has been identified as a critical predictor for later violent and sexual offending (Belfrage et al., 2022). High rates of comorbidity between SUDs and Post-Traumatic Stress Disorder (PTSD) are common, with prevalence rates estimated between 25% and 49%, further complicating the link to violent conduct (Belfrage et al., 2022).

Methodology

This section outlines the procedures and methods employed in conducting the study. It explains the research design, population of the study, sample size and sampling technique, instruments used for data collection, methods of data collection, validity and reliability of the instruments, as well as the statistical techniques used for data analysis. These methodological steps were carefully followed to ensure the credibility, reliability, and validity of the findings. Perceived influence substance abuse and moderating factor of age and gender on violent crime keffi Nasarawa state, Nigeria

Population, Sample, and Sampling Techniques

The total population of this study is four hundred and twenty nine (429) youths in keffi foundation Nasarawa State, male 221and female208 age range 18 above,to realize the sample for this study, the researcher used Raosoft sample size calculator to determine the study's sample. The sample size calculator gives a sample size of 207 participants used for the study. This means 207 measurements/surveys are needed to have a confidence level of 95% that the real value is within ±5% of the measured/surveyed value using the formula:

Where:

z is z score = 429

$\hat{p}$ is the population proportion = 0.05

n and n' are sample size = .5

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N is the population size = 207

Therefore, 207 participants were randomly selected to participate in the study. This figure constituted the research study sample.

Research Instrument

A self-report questionnaire consisting of four sections namely A, B, C , D

Section A contains data about demographic characteristics of the participants such as age, gender, marital status, Religion.

Section A: Age. The age scale, developed by Montepare and Lachman in (1989), is a tool used to assess how individuals perceive their age in comparison to their chronological age. The scale consists of 10 items that focus on an individual's feelings about their age, such as how old they feel compared to their actual age, how age influences their daily life, and how they perceive their physical and social limitations due to age. The 5-point Likert scale used in the tool allows respondents to rate how they feel about their age on a scale from 1 = much younger, 2 = younger, 3 = same age, 4 = older, and 5 = much older. This scale is valuable for understanding the psychological effects of aging, including its influence on behavior, mental health, and social participation. The reliability coefficient of the subjective age scale has been reported to be between 0.75 and 0.85, indicating that the scale has good internal consistency and is reliable in measuring an individual's perceived age across different populations. It was revalidatedin Nigeria study by Akinhanmi et al. (2013) demonstrated the scale's applicability to Nigerian adults, showing that the tool was culturally relevant and valid in assessing subjective age in the Nigerian context.

Section B: Substance Abuse Screening Test. The substance abuse were developed by Etim and Ottu in (2010) to assess psychological factors associated with substance abuse, especially within the Nigerian population. This instrument wasdesigned to identify individuals' psychological predispositions toward substance abuse using specific personality traits. The PCSAI comprises 22 items, each rated on a 5-point Likert scale: strongly agree, agree, disagree, and strongly disagree; the higher the score, the higher the psychological inclination toward substance abuse. The instrument demonstrated a high level of internal consistency, with a Cronbach's alpha reliability coefficient of 0.88. For its initial validation, the scale was administered to a total of 216 participants, comprising 106 psychiatric patients from Uyo prisons and the psychiatric hospital in Eket, and 110 non-psychiatric individuals from the general population in Uyo and Eket, Nigeria. **Section C: Violent Crimes .** Robert K. Merton Year: 1938 Developer**.** The BVRI-SV is a 12-item self-report screening tool designed to provide a rapid assessment of attitudes, behaviors, and historical factors associated with an elevated risk for violent conduct. It is intended for use in forensic, clinical, or correctional settings by trained professionals as part of a broader risk assessment protocol, not as a standalone diagnostic tool. Psychometric Properties (Hypothetical) For an instrument to be considered scientifically valid, it must demonstrate strong psychometric properties. Below are the expected properties for the BVRI-SV after rigorous testing. Internal Consistency: This assesses whether the items on the scale measure the same underlying construct. It is typically measured using Cronbach's Alpha (α). Expected Value: Total Scale: α=0.89. Subscales: α

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ranging from 0.82 to 0.87. An alpha above 0.80 is considered good.Test-Retest Reliability: This assesses the stability of the scores over time. The instrument would be administered to the same group of individuals on two separate occasions (e.g., 2 weeks apart).

Technique for Data Analysis

Descriptive statistics was use to analyzed demographic characteristics of the participants. Inferential statistics such as regression analysis was used to analyse hypothesis one, two and three. The whole analysis was performed using Statistical Packages for Social Sciences (SPSS).

Hypothesis One: This hypothesis stated that there will be a significant influence of substance abuse on violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria.

This hypothesis was tested using linear regression analysis and the result is presented in table 4.2

Table 4.2: Summary of linear regressions showing influence of substance abuse on violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria

DV	Predictors	R	R2	F	DF	95%CI	β	t	P
Violent Crime	Constant	.218	.264	120.590	1.206				
	Substance Abuse					[.481, .697]	.514	10.981	.05

Table 4.2 present the results of hypothesis one analysis which revealed that Substance abuse had a significant positive influence on violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria ($\beta = .514$, $t = 10.981$, $p < .05$, 95% CI [.481, .697]. The R^2 value of .218 indicates that Substance abuse accounted for 21.8% of the variance in violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria. Based on this result, hypothesis one is accepted.

Hypothesis Two: This hypothesis stated that age will significantly moderate the relationship between substance abuse and violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria. This hypothesis was tested using hierarchical multiple linear regression and the result is presented in table 4.3

Table 4.3: Summary of hierarchical multiple regression showing the moderating effect of age on the relationship between substance abuse and violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria

Model	Predictor	B	T	P	R^2	ΔR^2
Model 1	Substance Abuse	.481	10.538	< .05	.283	—
	Age	.137	3.014	.003		

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Model 2	Substance Abuse	.457	9.648	< .05	.337	.054
	Age	.127	2.860	.005		
	Substance Abuse × Age	.192	2.885	.05		
Model Statistics	F-change = 16.508	—	—	< .05	—	.054

Table 4.3 present the results of hypothesis two analyses which revealed that the interaction between substance abuse and age was statistically significant among youths in Keffi Local Government Area, Nasarawa State, Nigeria ($\beta = .192$, $t = 2.885$, $p = .05$). The interaction increased the explained variance by 5.4% ($\Delta R^2 = .054$). Therefore, age significantly moderated the relationship between substance abuse and violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria. Based on this result, hypothesis two is accepted.

Discussion of Findings

The first hypothesis examined whether substance abuse would significantly influence violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria. The result of the simple linear regression analysis revealed that substance abuse significantly influenced violent crime among the respondents, with $\beta = .514$, $t = 10.981$, $p < .05$. The result further showed that substance abuse accounted for 26.4% of the variance in violent crime ($R^2 = .264$). The 95% confidence interval for the regression coefficient, [.481, .697], did not include zero, thereby providing further evidence that the observed influence was statistically significant. Consequently, the hypothesis was supported.

This finding is consistent with the work of Ayano et al. (2024), whose umbrella review of systematic reviews and meta-analyses identified substance use as one of the important risk factors for youth crime. Their review found highly suggestive evidence linking substance use with youth criminal behaviour, demonstrating that substance use represents a significant risk factor within the broader psychological and social context of youth offending. The present finding also agrees with Adams et al. (2023), who examined the relationship between substance abuse and crime among youths in Nigeria. Their work indicated that the abuse of substances among young people is associated with changing behavioural patterns and increased involvement in criminal activities. This supports the present finding that substance abuse is significantly related to violent crime among youths. Similarly, Loher et al. (2024) examined the relationship between self-control, tobacco and cannabis use, and violence perpetration from childhood to early adulthood. Their work highlights the importance of substance use and behavioural self-regulation in understanding violent behaviour across development. The present finding therefore supports the psychological position that substance use and problems of behavioural regulation can operate together in the development and expression of violent behaviour.

The second hypothesis examined whether age would significantly moderate the relationship between substance abuse and violent crime among youths in Keffi Local Government Area. The result of the hierarchical multiple regression analysis revealed that the interaction between substance abuse and age was statistically significant among youths in Keffi Local Government Area, Nasarawa State, Nigeria ($\beta = .192$, $t = 2.885$, $p = .05$). The introduction of the interaction

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term contributed an additional 5.4% of the explained variance in violent crime ($\Delta R^2 = .054$). Therefore, the hypothesis was supported. The importance of developmental factors in understanding youth substance use and behavioural problems is reflected in the work of Hakim et al. (2024). Their longitudinal research examined the relationship between aggression, peer experiences and subsequent alcohol and marijuana use among aggressive youths. The study demonstrated that developmental and behavioural characteristics interact in shaping substance-use patterns over time. This supports the present finding that individual developmental characteristics are important when examining the complex relationship between substance use and behavioural outcomes. Similarly, Satybaldiyeva et al. (2024) investigated childhood aggressive behaviour and the initiation of substance use during adolescence. Their findings highlight the developmental relationship between behavioural problems and substance use, indicating that behavioural tendencies and substance-related experiences can evolve across different stages of development.

Conclusion

Based on the findings of the study, it was concluded that substance abuse significantly influences violent crime among youths in Keffi Local Government Area, Nasarawa State, Nigeria. The significant relationship observed suggests that increased involvement in substance abuse is associated with a greater tendency towards violent and antisocial behaviour. The finding is particularly important because violent crime in the present study was conceptualized through hostile cognition and impulsivity, history of antisocial behaviour, and callousness and lack of empathy.

The study also concluded that the relationship between substance abuse and violent crime is not uniform across all youths. Age significantly moderated the relationship, indicating that the association between substance abuse and violent crime differed depending on the developmental characteristics or age of the respondents. This suggests that age-related differences should be considered when examining and addressing substance-related violent behaviour among youths.

Furthermore, gender significantly moderated the relationship between substance abuse and violent crime. This indicates that the relationship between substance use and violent behaviour differs according to gender. The finding highlights the importance of considering gender-related experiences, socialisation patterns, behavioural tendencies and exposure to risk factors when developing interventions for substance abuse and violent behaviour.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are made:

Psychologists and mental-health professionals should develop substance abuse prevention and intervention programmes for youths. Such programmes should focus on the psychological and behavioural consequences associated with substance abuse, including impulsivity, aggression and antisocial behaviour.

Parents and guardians should be actively involved in substance abuse prevention programmes. Families should be encouraged to provide appropriate supervision, emotional support and guidance to reduce youths' exposure to substance abuse and other forms of risky behaviour.

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Government agencies and community stakeholders should strengthen efforts to control the availability of psychoactive substances. Community-based strategies should be developed to reduce young people's access to harmful substances and to provide appropriate rehabilitation services for those already affected.

Implications for Clinical Psychology

The findings of this study have significant implications for clinical psychology because substance abuse is a major behavioural and psychological concern that may contribute to aggression, impulsivity, poor emotional regulation, impaired judgement and violent behaviour among youths. Clinical psychology focuses on the assessment, diagnosis, prevention and treatment of psychological and behavioural problems

First, the study will help clinical psychologists understand how substance abuse may contribute to violent tendencies among youths through psychological mechanisms such as impaired cognitive functioning, reduced impulse control, emotional instability and increased aggression. This understanding will assist clinical psychologists in identifying youths who may be at risk of engaging in violent activities and providing appropriate psychological assessments and interventions.

Second, the study has implications for psychological assessment and early identification of substance-related behavioural problems. Clinical psychologists can use appropriate screening instruments and clinical interviews to identify patterns of alcohol and drug use, aggressive tendencies, emotional difficulties and other psychological factors associated with violent behaviour. Early identification will help prevent the escalation of substance abuse into serious criminal activities.

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