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INFLUENCE OF FAMILY ENVIRONMENT AND SUBSTANCE USE ON RISKY BEHAVIORS AMONG SECONDARY SCHOOL ADOLESCENTS IN KOKONA LOCAL GOVERNMENT AREA, NASARAWA STATE

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Abstract

This study investigated the independent and joint predictive influence of family environment and substance use, alongside gender differences, on risky behaviours among secondary school adolescents in Kokona Local Government Area (LGA), Nasarawa State, Nigeria. Grounded in Social Learning Theory, Family Systems Theory, and Problem Behavior Theory, the study adopted a non-experimental correlational survey design. From a target population of 4,560 students across public secondary schools in Kokona LGA, a representative sample of 368 participants (192 males and 176 females) was drawn from eight government schools across four administrative districts using Taro Yamane's formula and a multi-stage sampling procedure. Data were collected using three psychometrically validated instruments: an adapted Family Environment Scale, the Substance Use Patterns and Behavioral Correlates Scale, and the Risky Behaviors Scale. Data were analyzed at the 0.05 significance level using Pearson Product-Moment Correlation (r), Multiple Linear Regression (MLR), and Independent Samples t-test. Results revealed a significant negative relationship between supportive family environment and adolescent risky behaviours ($r=-0.524$, $p<0.001$), accounting for 27.4% of variance, and a strong positive relationship between substance use and risky behaviours ($r=0.720$, $p<0.001$), accounting for 51.8% of variance. Jointly, family environment and substance use significantly predicted 55.1% of the total variance in adolescent risky behaviours ($F(2,365) =223.41$, $R^2 =0.551$, $p<0.001$), with substance use ($\beta=0.450$, $p<0.001$) exerting over twice the predictive weight of family environment ($\beta=0.200$, $p=0.001$). Furthermore, male students scored significantly higher in risky behaviours than female students ($t (366) =3.82$, $p<0.001$). The study concludes that adolescent delinquency in Kokona LGA is driven predominantly by immediate physiological disinhibition and high-risk peer ecosystems that overwhelm domestic buffers. It recommends structured Cognitive-Behavioural Interventions (CBI), targeted substance de-escalation programs, peer-led positive mentorship, and parent-focused digital and community monitoring initiatives.

Keywords: Family Environment, Substance Use, Risky Behaviours, Adolescents, Gender Differences, Forensic Psychology, Kokona LGA.

Introduction

Adolescence represents a critical developmental window characterized by profound neurobiological, psychological, and social transitions that heighten vulnerability to health-compromising and delinquent conduct (Casey, 2025). Globally, longitudinal surveillance indicates that approximately 31% of youth aged 12 to 17 experience significant emotional or

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behavioural dysregulation, with nearly one in four engaging in early sexual initiation or substance misuse (Casey, 2025; Smith, 2026). Within Sub-Saharan Africa, these vulnerabilities are compounded by socioeconomic strain and fragile institutional safety nets, where risky sexual behaviour (RSB) prevalence reaches 40% to 71% among school-going youth due to diminished adult supervision and the "working poverty" cycle (Amnesty International, 2026; World Bank, 2025).

In Nigeria, escalating adolescent risk-taking poses a severe threat to educational stability and human capital development. With multidimensional poverty affecting approximately 63% of the population and youth unemployment remaining elevated, secondary school students face acute socioeconomic and peer pressures (National Bureau of Statistics [NBS], 2022; World Bank, 2025). Empirical assessments indicate that 28% to 30% of in-school Nigerian adolescents experience intense peer pressure toward early sexual debut, while non-medical consumption of alcohol, cannabis, tramadol, and codeine-based syrups continues to climb (Lagos State Ministry of Health & UNODC, 2025; Okonjo & Silva, 2026; Ugoji et al., 2025). Within Nasarawa State and specifically in semi-urban and agrarian transit corridors such as Kokona Local Government Area (LGA) regional insecurity and economic migration have eroded traditional communal oversight, exposing students to "unsupervised risk windows" marked by substance experimentation, truancy, reckless motorcycle riding, and peer-led aggression (Nasarawa State Ministry of Education, 2025; National Population Commission [NPC], 2026; UNODC, 2025).

The family environment serves as the primary agent of adolescent socialization and functions as either a protective shock absorber or a domestic catalyst for deviance (Russe & Crockett, 2018; Sharma & Hussain, 2021). Three core interpersonal dimensions govern this trajectory: parental monitoring (tracking an adolescent’s whereabouts, peers, and digital activities), family cohesion (emotional warmth, bonding, and mutual support), and family conflict (frequency of household hostility, harsh punishment, and parental substance modeling) (Fosco & Stormshak, 2020; Guedes et al., 2022; Tanaka et al., 2025). Strong family cohesion and consistent monitoring foster moral identity and self-control, buffering youth against external peer pressure (Yang et al., 2021). Conversely, disengaged or conflict-ridden households impair adolescent emotional regulation and compel youth to seek validation within deviant street and peer networks (Kaur & Singh, 2022; Onyango et al., 2025).

Simultaneously, adolescent substance use operates as both a primary risk behaviour and a potent pharmacological disinhibitory that accelerates secondary offenses, including physical assault, unprotected sex, academic failure, and petty theft (Danjuma & Yusuf, 2024; Liu et al., 2025; NDLEA, 2024). Moreover, gendered socialization patterns shape how these risks manifest: while male adolescents typically exhibit higher rates of overt physical aggression, cultism, and reckless driving, emerging digital exposure is narrowing historical gender gaps in covert substance misuse and cyber-delinquency (Agbo & Terlumun, 2024; Dandaura & James, 2025; Umar, 2025).

Despite institutional disciplinary efforts across Nasarawa State, secondary schools in Kokona LGA continue to experience disturbing levels of student substance abuse, chronic truancy, physical fighting, examination malpractice, and precocious sexual activity (Ibrahim & Sule, 2025; Yusuf & Adams, 2025). While national statistics highlight broad youth vulnerabilities,

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there is a critical shortage of localized, multivariate empirical data examining how domestic dynamics (family environment) and chemical disinhibitors (substance use) jointly predict overall risky behaviour within Kokona LGA. Without context-specific evidence isolating the relative predictive weights of home environment, substance involvement, and gender, school counselling and public health interventions remain fragmented and reactive.

Objectives

i. To determine the perceived influence of the family environment on risky behaviors among secondary school adolescents in Kokona Local Government Area, Nasarawa State.
ii. To examine the relationship between substance use and risky behaviors among secondary school adolescents in Kokona Local Government Area, Nasarawa State.
iii. To evaluate the combined extent to which the family environment and substance use influences on risky behaviors among secondary school adolescents in Kokona Local Government Area, Nasarawa State.
iv. To investigate the difference in engagement in risky behaviors between male and female secondary school adolescents in Kokona Local Government Area, Nasarawa State.

Hypotheses

To address this gap, the study examined four research questions and tested four corresponding hypotheses at the 0.05 level of significance:

i. There is a significant relationship between family environment and risky behaviours among secondary school adolescents in Kokona LGA.
ii. There is a significant relationship between substance use and risky behaviours among secondary school adolescents in Kokona LGA.
iii. Family environment and substance use will jointly and significantly predict risky behaviours among secondary school adolescents in Kokona LGA.
iv. There is a significant difference between male and female secondary school adolescents in their engagement in risky behaviours in Kokona LGA.

Theoretical Framework

The theoretical foundation of this study rests on three complementary behavioural and developmental frameworks that explain how domestic environments and substance involvement drive adolescent risk-taking. Social Learning Theory (Bandura, 1977, 1986) posits that adolescents acquire behavioural norms through observational learning, imitation, and vicarious reinforcement; when parents, older siblings, or peers model substance consumption (such as *Burukutu*, alcohol, or cannabis) or aggressive conflict resolution, youth internalize these behaviours as normative coping mechanisms. Complementing this individual learning process, Family Systems Theory (Bowen, 1978; Minuchin, 1974) conceptualizes the family as an interdependent emotional unit governed by boundaries and subsystems, arguing that dysfunctional patterns such as emotional disengagement, chronic hostility, or parental substance

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dependency disrupt systemic equilibrium and manifest symptomatically as externalizing conduct disruptions in adolescents.

Expanding beyond family dynamics to capture the clustering of multiple offenses, Problem Behavior Theory (Jessor & Jessor, 1977; Jessor, 1991) argues that adolescent risk behaviours including substance use, precocious sexual activity, truancy, and physical aggression do not occur in isolation, but coalesce into an interrelated "syndrome" of unconventionality. According to Jessor, this behavioural syndrome is driven by the dynamic balance between risk factors and protective buffers across three interacting domains: the Personality System (values and self-regulation), the Perceived Environment System (parental monitoring, family cohesion, and peer modeling), and the Behaviour System.

Among these three frameworks, Problem Behavior Theory (PBT) serves as the most comprehensive overarching theory for application in this study because it integrates the core mechanisms of both Social Learning Theory and Family Systems Theory into a single predictive model. While Social Learning Theory explains *how* adolescents imitate substance use and Family Systems Theory explains *why* household dysfunction destabilizes youth, PBT directly accounts for the multivariate interaction tested in this research demonstrating how deficits in the Perceived Environment System (low parental monitoring and weak cohesion) interact with substance involvement to jointly predict a broad spectrum of co-occurring risky behaviours among secondary school adolescents in Kokona Local Government Area.

Method

Research Design, Population, and Sample

The study is a correlational design, that investigates relationships between variables. This design is the ideal choice for this research because it directly addresses the study's goal of exploring the "influence," "relationship," and "effects" of family environment and substance use on risky behaviors. The target population comprised 4,560 in-school adolescents enrolled across 21 government-owned secondary schools in Kokona LGA during the 2024/2025 academic session (Nasarawa State Zonal Education Office Garaku).

Using the total population of 4,560 students from the selected schools, the researcher apply the Taro Yamane (1967) formula to determine the sample size at a 0.05 margin of error:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample Size

N = Total Population (4,560)

e = Margin of error (0.05)

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Calculation:

$$n = \frac{4560}{1 + 4560(0.0025)}$$

$$n = \frac{4560}{1 + 11.4}$$

$$n = \frac{4560}{12.4}$$

n is approx. 368

Consequently, a sample size of **368** students was utilized for this study to ensure statistical representation.

A four-stage sampling procedure was executed: (1) stratification of Kokona LGA into four administrative districts (Garaku, Agwada, Kokona, and Bassa); (2) purposive selection of two government secondary schools per district (eight schools total) to ensure geographical spread; (3) proportionate stratified allocation based on school enrolment; and (4) simple random sampling (rotary method) to select individual students. Of the 368 respondents, 192 (52.2%) were male and 176 (47.8%) were female, distributed across early adolescence (10–13 years: 26.6%), middle adolescence (14–17 years: 58.4%), and late adolescence (18+ years: 14.9%).

Instrumentation

Data for this study were collected using a composite, self-administered 37-item questionnaire structured on a 5-point Likert scale ranging from *Strongly Agree (5)* to *Strongly Disagree (1)*, integrating three psychometrically validated instruments. The first instrument, the Family Environment Scale (FES), adapted from Moos and Moos (1981, 2009) into a 10-item scale, evaluated domestic social-environmental characteristics including cohesion, conflict, and parental control; positive and reverse-coded negative items were cumulatively scored so that higher scores reflected a supportive home climate, whereas lower scores indicated a dysfunctional, high-risk household. The second instrument, the Substance Use Patterns and Behavioural Correlates Scale, adapted from the World Health Organization's Alcohol, Smoking and Substance Involvement Screening Test (ASSIST, 2002) and the NDLEA Behavioural Assessment Framework into a 12-item scale, measured the frequency of psychoactive substance consumption (including culturally relevant substances such as *Burukutu*) and its behavioural triggers, with additive scoring denoting greater substance involvement. The third instrument, the Risky Behaviours Scale (RBS), anchored in Richard Jessor's (1977, 1991) Problem Behaviour Theory and structured as a 15-item scale, assessed externalizing conduct including academic delinquency, physical aggression, school defiance, and reckless motorcycle riding, where higher cumulative scores directly indicated elevated behavioural risk.

To establish content, face, and construct validity, the composite instrument was reviewed by experts in Psychology and Public Health, yielding a satisfactory Content Validity Index (CVI) and confirming item appropriateness for adolescents in Nasarawa State. Internal consistency

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reliability was verified through a pilot study conducted among 20 secondary school adolescents in a neighbouring community outside the main study sample and analysed using IBM SPSS. The pilot results confirmed robust reliability across all three sections and the total instrument yielding Cronbach's alpha (α\alphaα) coefficients of 0.82 for the Family Environment Scale, 0.78 for the Substance Use Questionnaire, 0.85 for the Risky Behaviours Scale, and 0.81 for the overall 37-item battery all surpassing the standard 0.70 social science benchmark for psychometric stability.

Procedure

The data collection procedure commenced with obtaining an official letter of introduction from the Head of Department, which was presented to the principals of the participating schools to secure institutional approval and administrative cooperation. Trained research assistants underwent a comprehensive orientation covering study objectives, participant inclusion criteria, informed consent, and confidentiality protocols. Subsequently, the researcher and assistants personally administered the validated questionnaires via direct hand-delivery in classroom settings, offering real-time clarification to minimize response errors, while ensuring voluntary participation and strict anonymity by excluding personal identifiers; completed instruments were retrieved immediately or via a structured follow-up schedule to maximize the response rate.

Statistical Techniques

For data analysis, inferential statistical techniques were matched directly to the research hypotheses at the 0.05 level of significance. Hypotheses one and two, which examined the bivariate relationships between family environment, substance use, and risky behaviors, were tested using the Pearson Product-Moment Correlation (r) to establish the strength and direction of linear associations among the continuous variables. Hypothesis three, evaluating the joint predictive capacity of family environment and substance use on risky behaviors, was analyzed using Multiple Linear Regression (MLR) to determine the overall variance explained (R^2) and compare the relative predictive weights (β\betaβ) of each independent variable. Finally, hypothesis four was tested using an Independent Samples t-test to compare the mean risky behavior scores of male and female adolescents and determine whether observed gender differences in risk-taking within Kokona Local Government Area were statistically significant.

Results

Hypothesis One: Family Environment and Risky Behaviours

Table 1: Pearson Product-Moment Correlation between Family Environment and Risky Behaviours (N=368)

Variables	N	Mean ($\bar{X}$)	Std. Dev. (SD)	df	r-cal	p-value	Decision
Family Environment	368	34.12	6.45	366	-0.524*	0.000	Significant
Risky Behaviours	368	20.15	4.88				

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**Significant at p<0.05p < 0.05p<0.05.*

Table 1 indicates a statistically significant, moderate-to-strong negative correlation between supportive family environment and adolescent risky behaviours (r=−0.524, p<0.001r = -0.524, p < 0.001r=−0.524, p<0.001). The coefficient of determination (r2=0.274r^2 = 0.274r2=0.274) demonstrates that family stability, monitoring, and cohesion independently account for 27.4% of the variance in reducing risky behaviour engagement. Thus, Hypothesis One is accepted.

Hypothesis Two: Substance Use and Risky Behaviours

Table 2: Pearson Product-Moment Correlation between Substance Use and Risky Behaviours (N=368)

Variables	N	Mean ($\bar{X}$)	Std. Dev. (SD)	df	r-cal	p-value	Decision
Substance Use	368	21.40	5.12	366	0.720*	0.000	Significant
Risky Behaviours	368	20.15	4.88				

**Significant at p<0.05p < 0.05p<0.05.*

Table 2 reveals a strong, statistically significant positive relationship between substance use and risky behaviours (r=0.720, p<0.001r = 0.720, p < 0.001r=0.720, p<0.001). With a coefficient of determination of r2=0.5184r^2 = 0.5184r2=0.5184, substance use alone accounts for approximately 51.8% of the total variation in adolescent risky behaviours in Kokona LGA. Consequently, Hypothesis Two is accepted.

Hypothesis Three: Joint Prediction of Family Environment and Substance Use on Risky Behaviours

Table 3: Multiple Linear Regression Summary and Coefficients for Joint Prediction (N=368)

Predictor Variables	Unstandardized B	Std. Error	Standardized Beta (β)	t-value	Sig. (p)
(Constant)	12.45	1.12	—	11.11	0.000
Substance Use	0.48	0.05	0.450	9.60	0.000
Family Environment	-0.22	0.04	-0.200	-5.50	0.001

Model Summary: R=0.742, R^2=0.551, Adjusted R^2=0.548, SE=1.240, F(2,365) =223.41, p<0.001

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As shown in Table 3, family environment and substance use jointly and significantly predicted adolescent risky behaviours ($F(2, 365) = 223.41$, $p<0.001$), explaining 55.1% of the total variance ($R^2=0.551$). Both predictors made statistically significant unique contributions, with substance use ($\beta=0.450$, $t=9.60$, $p<0.001$) demonstrating more than double the relative predictive weight of family environment ($|\beta|=0.200$, $t=-5.50$, $p=0.001$). Hypothesis Three is therefore confirmed.

Hypothesis Four: Gender Differences in Risky Behaviours

Table 4: Independent Samples t-test Analysis of Gender Differences in Risky Behaviours (N=368)

Gender	N	Mean ($\bar{X}$)	Std. Dev. (SD)	df	t-cal	p-value	Decision
Male	192	22.45	5.10	366	3.82*	0.000	Significant
Female	176	20.12	4.75				

**Significant at p<0.05*

Table 4 demonstrates a statistically significant gender difference in risky behaviour scores ($t(366) = 3.82$, $p<0.001$) with male adolescents ($\bar{X}=22.45$, $SD=5.10$) reporting significantly higher overall engagement in externalizing risk behaviours than female adolescents ($\bar{X}=20.12$, $SD=4.75$). Hypothesis Four is accepted.

Discussion

The findings of this study provide critical empirical and forensic psychological insights into the etiology of adolescent risk-taking in Kokona LGA, Nasarawa State. First, the significant inverse association between a supportive family environment and risky behaviours ($r=-0.524$, $p<0.001$) confirms that emotional cohesion, open parent-child communication, and consistent parental monitoring function as vital protective buffers. This aligns with Hirschi's Social Control Theory and corroborates regional findings by Yusuf and Adams (2025) and Onyango et al. (2025), demonstrating that when domestic attachment and supervision break down due to family conflict or economic migration, adolescents migrate toward high-risk peer ecosystems for validation.

Second, substance use emerged as the single most potent predictor of risky behaviour ($r=0.720$; $\beta=0.450$), accounting for over half of the behavioural variance. This strongly supports the Pharmacological Disinhibition Model (Volkow & Blanco, 2023) alongside local evidence from Danjuma and Yusuf (2024) and Ibrahim and Sule (2025), indicating that psychoactive agents impair prefrontal executive control and act as an immediate chemical catalyst for physical aggression, truancy, and unprotected sexual encounters. Simultaneously, through the lens of Jessor's (1991) Problem Behavior Theory, substance misuse and delinquency coalesce as a broader syndrome of unconventionality; treating drug use in isolation without addressing underlying psychosocial vulnerabilities risks symptom substitution.

Third, the multivariate regression model ($R^2=0.551$) reveals a crucial forensic distinction: while family environment provides unique protective variance, substance use carries more than twice its predictive weight. For secondary school students in Kokona LGA, delinquency appears

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predominantly *situational* driven by immediate physiological disinhibition and peer reinforcement loops that can overwhelm baseline domestic stability. Finally, the significant male predominance in risky behaviour ($t=3.82$, $p<0.001$) reflects gender-role socialization linking masculinity with physical risk-taking and sensation-seeking (Agbo & Terlumun, 2024; Bala, 2024). Nevertheless, consistent with Dandaura and James (2025) and Umar (2025), increasing access to unregulated digital media and covert pharmaceuticals suggests an emerging convergence in risk exposure among female students.

Conclusion

Adolescent risky behaviour in Kokona Local Government Area is significantly shaped by the interplay between domestic socialization and psychoactive substance involvement, accounting jointly for 55.1% of behavioural variance. While a cohesive, well-monitored family environment serves as an essential protective anchor, immediate substance use and peer reinforcement operate as the most urgent criminogenic drivers accelerating the transition from student misconduct to formal justice involvement.

Recommendations

1. Transition to Structured Cognitive-Behavioural Interventions (CBI): School guidance counsellors and educational authorities in Kokona LGA should replace passive disciplinary talks with structured CBI modules targeting peer-refusal skills, impulse control, and cognitive restructuring of masculine risk-taking norms.
2. Prioritize Targeted Substance De-escalation and Peer Mentorship: Given that substance use carries the highest predictive weight, public health and school authorities should implement early screening and de-escalation programs alongside peer-led mentorship initiatives that reframe social status around prosocial and academic achievement.
3. Adopt Holistic Triad-of-Risk Frameworks: Guided by Problem Behavior Theory and the Risk-Need-Responsivity (RNR) model, interventions should avoid symptom isolation by simultaneously addressing individual self-regulation, peer group affiliations, and substance access.
4. Strengthen Family Monitoring and Digital Literacy: Community and faith-based organizations should partner with Parent-Teacher Associations (PTAs) to equip parents with practical monitoring strategies covering both physical whereabouts and adolescent smartphone/social media activity.

References

Agbo, P. T., & Terlumun, A. (2024). Gender divergence in externalizing behaviors among secondary school students in Nasarawa State. *Journal of Educational and Social Research*, 14(2), 112–125.

Almeida, R. M., Silva, C. P., & Costa, M. (2023). Parental monitoring, peer influence, and adolescent risk-taking trajectories. *Journal of Youth and Adolescence*, 52(4), 780–795.

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https://doi.org/10.5281/zenodo.24522958
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Amnesty International. (2026). *Adolescent reproductive health and socioeconomic vulnerability in Sub-Saharan Africa: 2026 regional brief*. Amnesty International Publications.

Bala, M. S. (2024). Gendered patterns of road safety risk and underage motorcycle riding in Nasarawa State. *Nigerian Journal of Transport and Safety Studies*, 8(1), 44–58.

Bandura, A. (1977). *Social learning theory*. Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bowen, M. (1978). *Family therapy in clinical practice*. Jason Aronson.

Casey, B. J. (2025). Adolescent neurobiology, emotional dysregulation, and vulnerability to risk-taking in the digital age. *Annual Review of Developmental Psychology*, 7(1), 201–224.

Dandaura, E. S., & James, K. (2025). Gender and substance-related risk behaviors: An empirical assessment of secondary schools in Kokona LGA, Nasarawa State. *Nasarawa Journal of Psychological Studies*, 5(1), 67–82.

Danjuma, A., & Yusuf, M. (2024). Correlation between psychoactive substance use and delinquent acts among secondary school students in Nasarawa State. *Nigerian Journal of Forensic and Correctional Psychology*, 6(1), 29–43.

Fosco, G. M., & Stormshak, E. A. (2020). Family environment, conflict resolution, and adolescent emotional adjustment. *Family Process*, 59(3), 1024–1039.

Guedes, M., Veríssimo, M., & Santos, A. J. (2022). Family cohesion, supportive parenting, and adolescent resilience against peer pressure. *Journal of Child and Family Studies*, 31(6), 1580–1593.

Ibrahim, S., & Sule, H. (2025). Substance use and academic delinquency: An empirical assessment of secondary schools in Kokona LGA. *International Journal of Educational Foundations*, 9(2), 91–105.

Jessor, R. (1991). Risk behavior in adolescence: A psychosocial framework for understanding and action. *Journal of Adolescent Health*, 12(8), 597–605.

Jessor, R., & Jessor, S. L. (1977). *Problem behavior and psychosocial development: A longitudinal study of youth*. Academic Press.

Kaur, G., & Singh, R. (2022). Chronic family conflict, emotion dysregulation, and externalizing behaviors in adolescence. *Asian Journal of Psychiatry*, 71, 103065.

Lagos State Ministry of Health & United Nations Office on Drugs and Crime. (2025). *Secondary school substance use surveillance report*. UNODC Country Office Nigeria.

ISSN: 2971-7760 | VOL 10, ISS 1 | 25 NOVEMBER 2026
https://doi.org/10.5281/zenodo.24522958
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Liu, Y., Chen, X., & Zhang, W. (2025). Substance misuse as a gateway to violence and unsafe sexual practices among high school students. *Addictive Behaviors*, 161, 108201.

Minuchin, S. (1974). *Families and family therapy*. Harvard University Press.

Moos, R. H., & Moos, B. S. (2009). *Family Environment Scale manual* (4th ed.). Mind Garden.

Nasarawa State Ministry of Education. (2025). *Annual assessment report on student discipline, substance abuse, and psychosocial support in secondary schools*. Planning, Research, and Statistics Department.

National Bureau of Statistics. (2022). *Nigeria multidimensional poverty index (MPI) report*. Federal Republic of Nigeria.

National Drug Law Enforcement Agency. (2024). *Drug trends and behavioral patterns among in-school youth in Nasarawa and Plateau States*. NDLEA Research Directorate.

National Population Commission. (2026). *Demographic and youth vulnerability profile of North-Central Nigeria*. Federal Republic of Nigeria.

Okonjo, C., & Silva, T. (2026). Peer pressure, socioeconomic strain, and adolescent sexual risk-taking in Nigeria. *African Journal of Reproductive Health*, 30(1), 50–64.

Onyango, P., Kamau, J., & Njoroge, M. (2025). Disengaged family cohesion and substance use disorders among school-going youth in East Africa. *Journal of Substance Use*, 30(2), 210–218.

Russe, S. T., & Crockett, L. J. (2018). Family socialization and adolescent behavioral development. *Journal of Research on Adolescence*, 28(1), 4–19.

Sharma, N., & Hussain, A. (2021). Family climate, cohesion, and psychological well-being among adolescents. *Indian Journal of Health and Wellbeing*, 12(2), 185–190.

Smith, J. A. (2026). Global trends in early adolescent sexual initiation and substance use disorders. *Lancet Child & Adolescent Health*, 10(2), 115–128.

Tanaka, K., Sato, H., & Watanabe, Y. (2025). Parental monitoring in physical and digital spaces: Deterrents against adolescent risk-taking. *Computers in Human Behavior*, 163, 108472.

Ugoji, C., Eze, P., & Okafor, N. (2025). Pooled prevalence of alcohol, cannabis, and tobacco use among West African youth: A systematic review and meta-analysis. *Drug and Alcohol Dependence*, 267, 112530.

Umar, F. A. (2025). Social media risk and cyberbullying: A gendered analysis of high school students in FCT satellite towns. *Nigerian Journal of Media and Digital Psychology*, 4(1), 73–88.

ISSN: 2971-7760 | VOL 10, ISS 1 | 25 NOVEMBER 2026
https://doi.org/10.5281/zenodo.24522958
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

United Nations Office on Drugs and Crime. (2025). *World drug report and youth crime prevention assessment in West Africa*. UNODC.

Volkow, N. D., & Blanco, C. (2023). Substance use disorders: A comprehensive update of neurobiological mechanisms and executive impairment. *World Psychiatry*, 22(2), 203–229.

World Bank. (2025). *Nigeria development update: Youth employment, human capital, and socioeconomic resilience*. World Bank Group.

World Health Organization. (2002). *The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Guidelines for use in primary care*. WHO.

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.

Yang, X., Li, Z., & Wang, L. (2021). Parental monitoring, moral identity development, and adolescent risk avoidance: A structural equation model. *Journal of Adolescence*, 89, 142–151.

Yusuf, M. B., & Adams, R. (2025). Parental monitoring and risky sexual behavior among secondary school adolescents in Kokona LGA, Nasarawa State. *Journal of Social and Behavioral Sciences*, 12(2), 134–148.