DEMOGRAPHIC AND FAMILY PREDICTORS OF SUBSTANCE USE AMONG ADOLESCENTS IN SOUTHEASTERN NIGERIA

Uchechukwu P. Nnuji*[1], Richards E. Ebeh[2]& Charles I. Mbaeze[2]
[1]Department of Psychology, University of Agriculture and Environmental Sciences, Umuagwo, Imo State, Nigeria
*uchelynn25@gmail.com
[2]Department of Psychology, Imo State University, Owerri, Nigeria

Abstract

This study examined how birth order, parenting style, family socioeconomic status, gender, and age predicted drug involvement among adolescents in Owerri Metropolis, Imo State, Nigeria. A total of 576 secondary school students, including 293 males (50.9%) and 283 females (49.1%), aged 15 to 21 years(M = 15.81, SD = 0.99),were recruited using purposive sampling from six public secondary schools in Owerri. Participants completed the Parental Care Scale (Baumrind, 1991) and the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST; WHO, 2010). Data were analysed using hierarchical multiple regression. The results showed that birth order ($\beta = 0.017$, $p > 0.05$) and gender ($\beta = -0.063$, $p > 0.05$) did not significantly predict drug involvement. Authoritative parenting style ($\beta = -0.016$, $p > 0.01$) and family socioeconomic status ($\beta = -0.064$, $p < 0.05$) were inversely related to drug involvement, although the relationship was not statistically significant. Conversely, authoritarian ($\beta = .103$, $p < .05$) and permissive ($\beta = .410$, $p < .05$) parenting styles positively and significantly predicted higher levels of drug involvement. Additionally, older adolescents were significantly associated with increased drug use ($\beta = .087$, $p < .05$). These findings indicate that certain parenting styles and age are significant factors influencing adolescent substance use within this population. The study recommends that preventive policies should be implemented, with a greater emphasis on parental education and the introduction of youth-centred drug intervention programmes.

Keywords: Adolescent Drug Use, Parenting Styles, Socioeconomic Status, Birth Order

Introduction

Drug involvement, encompassing the use, abuse, and dependence on psychoactive substances, remains one of the most pervasive social and health challenges confronting adolescents worldwide. Across both developed and developing countries, young people are increasingly experimenting with and abusing substances such as alcohol, tobacco, cannabis, methamphetamine, and prescription drugs. Global data indicate that over 275 million individuals used drugs in 2020, with more than 36 million experiencing drug use disorders (UNODC, 2021). A recent comprehensive study of 220,362 adolescents from 47 countries found cannabis use prevalence of 7.2% and amphetamine/methamphetamine use of 2.34%, with the Americas showing the highest cannabis rates (11.31%) and Africa

the highest amphetamine rates (4.34%) (Son et al., 2025). In Nigeria, the 2018 National Drug Use Survey revealed that 14.3 million people were active drug users, with nearly three million already presenting with drug use disorders. The implications of this trend are particularly concerning for adolescents, who represent a demographic marked by heightened curiosity, susceptibility to peer influence, and incomplete psychological and neurocognitive development (NIDA, 2011).

The situation in Southeastern Nigeria illustrates these concerns more acutely. The emergence of methamphetamine, popularly known as "Mkpuru Mmiri," has generated a wave of health, social, and security crises. Reports indicate that the substance is widely abused by youths, contributing to violent behaviour, criminal activities, and educational disruption (NDLEA, 2021; Erhabor et al., 2023). Government and community stakeholders have initiated interventions, including sensitisation campaigns in schools and public hearings, yet adolescent drug involvement in the region continues to escalate (Wang&Bertram, 2022). The persistence of this problem underscores the urgent need to examine its underlying demographic and family-level predictors.

Although multiple interacting factors influence substance use among adolescents, the family environment has consistently emerged as a critical determinant of adolescent behaviour. Parenting styles, for instance, shape not only the developmental trajectory of adolescents but also their vulnerability to maladaptive behaviours such as drug use. Baumrind's (1991) theory of parenting styles provides a useful framework for understanding this relationship. According to Baumrind, authoritative parenting, characterised by warmth, responsiveness, and consistent discipline, tends to foster resilience and positive adjustment in adolescents. In contrast, authoritarian parenting, which emphasises strict control and punishment, and permissive parenting, which grants excessive freedom with minimal guidance, are associated with higher risks of behavioural problems, including substance involvement. Similarly, socioeconomic status (SES), as explained by Becker's (1960) human capital theory, influences opportunities, resources, and parental availability. Families with higher SES may provide protective resources such as education and supervision, while low SES families may experience financial stress, limited time for parental monitoring, and reduced access to preventive resources, thereby increasing adolescents' vulnerability to substance use.

Despite the relevance of these frameworks, evidence regarding demographic predictors such as age, gender, and birth order remains inconsistent. While older adolescents generally show higher levels of drug involvement due to increased autonomy and exposure to risk contexts, findings on gender and birth order have been mixed (Stewart & Eckstein, 2012; Valkov, 2018). These inconsistencies necessitate further empirical investigation within specific cultural contexts, such as Southeastern Nigeria, where cultural practices, parenting expectations, and socioeconomic realities may interact in unique ways.

Statement of the Problem

Substance use among adolescents has emerged as a critical public health concern across sub-Saharan Africa, with Nigeria experiencing particularly alarming rates. Drug abuse prevalence in Nigeria stands at 14.4% among individuals aged 15-64, with urban youth showing higher rates of opioid misuse driven by poverty and accessibility issues (Oweibia et al., 2025). Across sub-Saharan Africa, substantial regional variations exist, with Southern Africa reporting the highest rates (up to 44.6% for any substance use) and Western Africa showing rates of 31.2-32.9% (Marsiglia et al., 2025). Multiple risk factors contribute to adolescent substance use, including being male, older age, and exposure to peer and family substance use (Jumbe et al., 2025). In Nigeria specifically, psychopathologies including depression, anxiety, and stress, combined with parental factors such as family type and systems, jointly predict substance abuse among in-school adolescents (Akinnawo et al., 2025).

Adolescents are at the core of Nigeria's youthful population, expected to transition into the workforce and leadership positions. However, increasing involvement with psychoactive substances threatens to undermine this potential by leading to school dropout, poor academic performance, crime, violence, and health complications. In Southeastern Nigeria, the widespread use of methamphetamine ("Mkpuru Mmiri") represents a new and particularly destructive trend. This drug not only produces rapid addiction but also precipitates aggressive behaviour, psychosis, and community insecurity. Reports from security agencies and civil society organisations highlight that adolescent drug use is directly linked to cult activities, violent crimes, and risky sexual behaviours (NDLEA, 2022).

The persistence of this menace calls into question why preventive efforts have achieved limited success. While sensitisation campaigns raise awareness, they do not address the underlying family and demographic factors that predispose adolescents to substance involvement. In Nigeria, as in many parts of Africa, the family is the primary unit of socialisation, where values, behaviours, and coping strategies are instilled. Parenting styles, whether authoritative, authoritarian, or permissive, create unique emotional climates that either buffer adolescents against risky behaviours or expose them to greater vulnerability. Authoritative parenting has been shown to serve as a protective factor, while authoritarian and permissive parenting styles may contribute to rebellion, defiance, and susceptibility to peer influence (Benchaya et al., 2019; Chassin et al., 2005). In addition, family socioeconomic status plays a dual role: while poverty may push adolescents toward drugs as a coping mechanism, affluence may also increase risk due to reduced parental monitoring or achievement pressures (Luthar & Latendresse, 2005).

Demographic variables also complicate the picture. Birth order, though controversial, has been linked to differences in personality and adjustment, yet its relationship to drug use remains unclear. Gender differences in drug involvement, traditionally skewed toward males, are increasingly narrowing as females gain more exposure to peer and

social networks. Age, on the other hand, consistently predicts increased drug involvement, as older adolescents gain autonomy, experiment more, and often come into contact with wider peer networks. Despite these observations, empirical research examining the combined effect of these factors in the Nigerian context remains sparse. Most available studies either focus broadly on prevalence rates or emphasise peer and societal influences, leaving gaps in understanding the predictive role of family and demographic variables.

Therefore, this study seeks to fill this gap by examining how parenting styles, family socioeconomic status, birth order, gender, and age predict substance involvement among adolescents in Owerri Metropolis, Southeastern Nigeria. The findings of this research are expected to contribute to a more nuanced understanding of the family and demographic determinants of adolescent drug involvement, thereby guiding interventions that are culturally relevant and family-centred.

Objectives of the Study

The primary objective of this study is to investigate the impact of demographic and family-related factors on substance use among adolescents in Owerri Metropolis, Imo State, Nigeria. Specifically, the study will:

1. Determine whether birth order predicts drug involvement among adolescents in Owerri.
2. Examine the predictive role of authoritarian parenting style in adolescent drug involvement.
3. Investigate the relationship between permissive parenting style and adolescent drug involvement.
4. Assess whether authoritative parenting style predicts lower levels of adolescent drug involvement.
5. Evaluate the predictive role of family socioeconomic status in adolescent drug involvement.
6. Examine whether gender predicts drug involvement among adolescents.
7. Investigate the relationship between age and adolescent drug involvement.

Empirical Review

Research on adolescent substance use has grown steadily in the last decade, reflecting global concern about the vulnerability of young people to drug involvement. Empirical evidence shows that both demographic and family-related variables play significant roles in shaping adolescent behaviour, though findings are often nuanced and context-specific.

Birth Order and Substance Involvement

The relationship between birth order and adolescent outcomes, particularly regarding substance use, has been a subject of extensive research, albeit with mixed results. Studies indicate a higher likelihood of substance use among later-born children, which is often attributed to both psychological and environmental factors.

A study by Valkov (2018) in Bulgaria revealed that later-born adolescents are more likely to develop substance use disorders (SUDs), with last-borns showing a higher frequency of alcohol consumption than first-borns. The sample consisted of 166 participants, half of whom had a history of

SUDs, with data analysed using chi-square tests, showing a significant correlation between birth order and substance use ($p = 0.006$). Additionally, research by Bishop and Barclay (2022) analysed a large Swedish cohort, following individuals from age 30 to 55. This study found an increased risk for substance-related health issues in later-born children, but these effects were largely diminished after adjusting for familial background factors.Barclay et al. (2016) similarly found that later-borns had higher hospitalisation rates for alcohol use, but the effects were less pronounced in adulthood. However, Stagner (2009), in a 12-year follow-up of the Drug Abuse Reporting Program, found minimal evidence linking birth order with substance use patterns. These findings suggest that while birth order may influence adolescent substance use, familial and environmental factors play a critical role in shaping long-term outcomes.

Parenting Styles and Adolescent Substance Use

A growing body of empirical evidence underscores the role of parenting styles in shaping adolescent susceptibility to drug use. Benchaya et al. (2019), in a study of 100 participants in Los Angeles, CA, USA who responded to advertisements about a study on reasons for e-cigarette use in 2015, demonstrated that permissive and authoritarian parenting styles increased the risk of adolescent alcohol and drug involvement, while authoritative parenting acted as a protective factor. Similarly, Antunes et al. (2015), in a Brazilian sample involving two uncommon cases of unique scratch-card gambling disorder, found that adolescents who perceived low parental monitoring and understanding were more likely to use illicit drugs. Valente, Cogo-Moreira, and Sanchez (2019) further established that parental supervision significantly predicted lower drug involvement among adolescents in a study carried out in Australia and New Zealand, supporting the protective effect of parental engagement.

In contrast, authoritarian parenting, characterised by rigidity and punitive discipline, has been associated with rebellion and higher risk behaviours among adolescents (Baumrind, 1991; Chassin et al., 2005). Permissive parenting, marked by excessive freedom and minimal guidance, similarly predisposes adolescents to experimentation and peer-influenced behaviours. These findings align with Baumrind's typology, which remains a robust predictor of adolescent developmental outcomes globally. Importantly, these studies resonate with Nigerian family dynamics, where parenting is undergoing transitions from extended kinship models to more nuclear and less supervised family settings (Fasoranti& Olusola, 2012; Christopher & Harcourt, 2013).

Socioeconomic Status and Substance Use

Socioeconomic status (SES) is another important determinant of adolescent drug involvement, though empirical findings reveal a dual effect. Chen and Jacobson (2012) reported that adolescents from lower SES backgrounds were more likely to use substances as a coping strategy for stress and disadvantage. Similarly, Buchmann (2002) emphasised that limited resources constrain parental capacity to provide supervision and

educational opportunities, increasing vulnerability to risk behaviours.

Conversely, studies in affluent contexts (Luthar, 2003; Luthar & Latendresse, 2005) found that adolescents from higher SES families may also be at risk, particularly due to elevated achievement pressures, parental unavailability, and social dynamics that normalise experimentation with drugs. This paradox suggests that SES effects are mediated by parental involvement and cultural context. In Nigeria, where economic hardship coexists with growing exposure to global youth cultures, SES is a particularly salient variable warranting focused analysis.

Gender and Adolescent Drug Involvement

Gender has long been considered a predictor of adolescent substance use, but recent studies highlight shifting patterns. Traditionally, male adolescents were more likely to engage in substance use due to cultural expectations, greater freedom, and peer group dynamics (Oshodi & Aina, 2010). However, more recent findings suggest that the gender gap is narrowing. Josiah and Aina (2020) observed that female adolescents are increasingly engaging in drug use, reflecting broader changes in gender roles, social mobility, and peer exposure. These findings suggest that gender effects may no longer be as straightforward as previously assumed and may vary across different cultural and socioeconomic contexts.

Age and Adolescent Drug Use

Age consistently emerges as a robust predictor of drug involvement. NIDA (2011) highlighted that older adolescents are more likely to use substances due to increased autonomy, exposure to peer influence, and incomplete neurocognitive development, which compromises judgment and self-regulation. Stanovich, West, and Toplak (2013) similarly emphasised that adolescence is a critical developmental period marked by impulsivity and experimentation, making older adolescents more susceptible to drug involvement. Within Nigeria, Ojiaku and Nwokoro (2021) linked rising levels of drug abuse to the transition from mid- to late adolescence, as young people gain more independence and face heightened social pressures.

Across these studies, two patterns are evident. First, family factors, particularly parenting styles and SES, play central roles in predicting adolescent drug involvement, with authoritative parenting and engaged supervision serving as protective buffers. Second, demographic variables such as age and gender exhibit consistent yet evolving patterns, with older adolescents being more vulnerable, and gender differences becoming less pronounced. Birth order remains the least conclusive predictor, with mixed findings requiring further study in Nigerian populations.

Hypotheses

Based on the empirical evidence and theoretical frameworks guiding this study, the following hypotheses were proposed:

i: Birth order will not significantly predict adolescent drug involvement.

ii: Authoritarian parenting style will not significantly predict adolescent drug involvement.

iii: Permissive parenting style will not significantly predict adolescent drug

involvement.

iv: Authoritative parenting style will not significantly predict adolescent drug involvement.

v: Family socioeconomic status will not significantly predict adolescent drug involvement.

vi: Gender will not significantly predict adolescent drug involvement.

vii: Age will not significantly predict adolescent drug involvement.

Method

Design

The study employed a cross-sectional survey design, which allowed for the collection of quantitative data from adolescents in school settings at a single point in time. This design was chosen because it is effective in examining the predictive relationships between demographic and family variables and substance use behaviours.

Participants

The sample consisted of 576 adolescents drawn from six public secondary schools in Owerri Metropolis, Imo State, Nigeria. Purposive sampling was used to ensure adequate representation across different socioeconomic areas within the city. Among the respondents, 293 (50.9%) were male and 283 (49.1%) were female. Participants' ages ranged from 15 to 21 years, with a mean age of 15.81 years (SD = 0.99). The age range was deliberately selected because late adolescence is a developmental period in which experimentation with psychoactive substances is most common and predictive patterns are most observable.

Instruments

Data were collected using two standardised psychological instruments alongside a demographic questionnaire developed by the researchers.

The Parental Care Scale (Baumrind, 1991) was used to measure parenting styles. The instrument categorises parenting styles into three major categories: authoritative, authoritarian, and permissive. The scale comprises a set of items that assess parental warmth, responsiveness, strictness, and autonomy granting. Respondents rate their perceptions of their parents' behaviours on a Likert-type scale, with higher scores on each dimension indicating stronger endorsement of that particular style. The instrument has been widely validated across diverse cultural contexts and has demonstrated satisfactory psychometric properties, with internal consistency reliabilities ranging from .72 to .84 for its subscales (Chassin et al., 2005; Benchaya et al., 2019). Previous Nigerian studies have also confirmed the construct validity and applicability of this measure in adolescent populations (Christopher & Harcourt, 2013).

The Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST; WHO, 2010) was employed to assess adolescent involvement with psychoactive substances. The ASSIST is an eight-item instrument developed by the World Health Organisation to screen for risky use across substances, including alcohol, tobacco, cannabis, stimulants, inhalants, sedatives, hallucinogens, and opioids. It provides both lifetime and recent (past three months) involvement scores. Responses are scored to

generate a Substance Involvement (SI) score for each category, with higher scores reflecting greater levels of risk. The ASSIST has demonstrated strong psychometric properties across international samples, with test–retest reliabilities ranging between .80 and .90 and concurrent validity established against structured diagnostic interviews (Humeniuk et al., 2008). Nigerian validation studies further support its cultural suitability and internal consistency in adolescent samples (Oboh & Oboh, 2020).

The researchers designed a brief demographic questionnaire to collect data on participants' age, gender, family socioeconomic status, and birth order. Socioeconomic status was operationalised through parental occupation and educational attainment, consistent with prior studies on Nigerian adolescents (Fasoranti& Olusola, 2012).

Procedure

Approval to conduct the study was obtained from the Ethics Committee of the Department of Psychology, Imo State University, as well as from the management of the participating secondary schools. After permissions were secured, parental consent and student assent were obtained. Research assistants were trained to administer the instruments in a standardised manner to ensure clarity and uniformity of responses. Administration took place during school hours in classroom settings to maximise participation and minimise disruption. Groups of students were briefed on the purpose of the study, assured of the confidentiality and anonymity of their responses, and informed that participation was voluntary. The instruments were self-administered, but research assistants were present to clarify instructions and items where necessary. On average, completion took approximately 30 minutes. Completed questionnaires were collected immediately to prevent loss of data. All data were stored securely, with identifying information removed prior to analysis.

Data Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS, Version 25). Descriptive statistics (frequencies, means, and standard deviations) were used to summarise demographic characteristics and main variables. Pearson correlation was first employed to examine bivariate relationships among predictors. Hierarchical multiple regression analysis was then conducted to determine the predictive contributions of birth order, parenting styles, socioeconomic status, gender, and age to adolescent substance involvement. Predictors were entered in blocks to assess their incremental explanatory power and to evaluate the statistical significance of each variable.

Results

Table 1: Correlations ofthe Key Variables Used in theStudy

	DI	BO	An	P	Av	SES	AGE
DI	1	.021	.007	.022	-.042	-.003	.088*
BO		1	-.067	.086*	.028	-.109*	.049
An			1	-.244**	-.218**	.042	-.001
P				1	-.021	-.130**	.022
Av					1	-.070*	-.042
SES						1	-.003
AGE							1

Note: *N =576,* *.Correlationissignificantat the0.05level(2-tailed),**.Correlation is significant at the0.01level(2-tailed).

Keys: DI = Drug Involvement, BO =BirthOrder,

An=Authoritarian Parenting Style, P = Permissive Parenting Style,

Av=Authoritative Parenting Style, Parents' SES= Parents Socioeconomic Status

A correlation analysis of the key variables used in the study is presented in Table 1 above. The results showed significant inverse relationships between drug involvement and parents' SES (*r= -.108,n=576,p<.05*); birth order and parents' SES (*r= -.109,n=576, p<.05*);permissiveparentingstyleandparents' SES(*r =-.130,n =576,p<.01*); authoritative parenting style and parents' SES (*r=-.070, n=576, p<.05*); authoritarian parenting style and permissive parenting style (*r=-.244,n=576,p<.05*); authoritarian parenting style and authoritative parenting style (*r = -.218, n = 576,p<.05*).

However, significant positive relationships were found between drug involvement and age (*r=.088,n=576, p<.05*); drug involvement and permissive parenting style (*r=.389,n=576,p<.01*); birthorder and permissive parenting style(*r=.086, n=576,p<.05*)

Table2: SummaryofFourStepsHierarchicalMultiple Regression Analyses for Drug Involvement on Birth Order, Authoritarian Parenting Style, Permissive Parenting Style, Authoritative Parenting Style and Parents' Socioeconomic Status among Adolescents in Owerri..

Predictors	*Step1β*	*Step 2β*	*Step 3β*	*Step 4β*
Step 1				
Gender	-.063	-.063	-.030	-.033
Age	.087	.086	.079	.079
Step 2				
Birth Order		.017	-.011	-.017
Step 3				
Authoritarian ParentingStyle			.103	.102
Permissive ParentingStyle			.410	.402
Authoritative ParentingStyle			-.016	-.021
Step 4				
Parents' SocioeconomicStatus				-.064
△F	3.410*	.161	35.97**	2.76
R^2	.012*	.012	.170**	.174
△R^2	.012*	.000	.157**	.004
Df	2,573	3,572	6,569	7,568
DublinWatson	1.85			

*Note: N = 576,**p< .01,*p<.05.*

The result of a hierarchical multiple regression analysis, as presented in Table 2 above, tested the seven hypotheses of the study. The overall model of the three-step hierarchical regression analysis was not significant for birth order *[R^2 = .012, F(3, 572) = 12.88, p >.05]*. However, the overall model was significant for gender and age *[R^2 = 0.012, F(2, 573) = 18.87, p < 0.05], as well as parenting styles [R^2 = 0*.170 *F* (6, 569) =19.36,*p*<.01*]*and parents' socioeconomic status *[R^2*=.174, *F* (7, 568) =17.04,*p*<.01*]*. The overall fit of the model shows that17.4% of the variation in drug involvement among adolescents in Owerri has been explained. Also, the Durbin-Watson of 1.85 falls within the accepted range (1.5 < D < 2.5), indicating that there is no autocorrelation problem in the data and that the error term is independent.

In the first and second hypotheses, when gender and age were regressed into the model as control variables, they explained 1.2 percent of the variation in drug involvement among adolescents in Owerri. While gender did not significantly predict drug involvement among adolescents in Owerri *(β = -.063,p>.05, t =* -1.51*)*, age, however, significantly predicted drug involvement among adolescents in Owerri *(β=.087, p<.05, t=*2.10*)*. Therefore, the first nullhypothesis was accepted while the second nullhypothesis was rejected. The result implies that as adolescents become older, their likelihood of getting involved in drugs increases.

To analyse the result of the third hypothesis, birthorder was regressed into the model. It did not explain any percentage of the variation in drug involvement among

adolescents in Owerri. Birthorder also did not significantly predict drug involvement among adolescents in Owerri *(β =.017,p>.05, t =.404)*. Therefore, the third null hypothesis was accepted. To test hypotheses 4, 5, and 6, the parenting styles (Authoritarian, Permissive, and Authoritative) were regressed into the model. They jointly explained 15.7%ofthe variations in drug involvement among adolescents in Owerri. In addition, the results showed that authoritarian parenting style (β = .103, p < .05, t = 2.53) and permissive parenting style (β = .410, p < .05, t = 10.32) significantly predict drug involvement among adolescents in Owerri. Hypotheses 4 and 5 were therefore rejected. However, the results also showed that authoritative parenting style *(β=-.016,p<.01,t = -.408)* does not significantly predict drug involvement among adolescents in Owerri. The sixth nullhypothesis was therefore accepted. It is important to note that while authoritarian and permissive parenting styles had a direct relationship with drug involvement among adolescents in Owerri, authoritative parenting styles had an inverse relationship with drug involvement.

However, when parents' socioeconomic status was regressed into the model to test for the seventh hypothesis, it explained merely 0.4% of the variation in drug involvement among adolescents in Owerri. Parents' socioeconomic status*(β=-.064, p<.05,t=-1.66)* did not significantly predict drug involvement among adolescents in Owerri. The result implies that parents' socioeconomic status had an inverse but not significant relationship with drug involvement among adolescents in Owerri. The seventh null hypothesis was also accepted.

Discussion

This study examined the predictive influence of demographic and family-related variables on substance involvement among adolescents in Southeastern Nigeria. The results showed that authoritarian and permissive parenting styles, as well as age, were significant predictors of adolescent substance use, while authoritative parenting, socioeconomic status, gender, and birth order were not significant predictors. These findings contribute to ongoing debates in adolescent psychology by highlighting the unique ways in which family dynamics and demographic factors operate within the Nigerian context.

The finding that authoritarian and permissive parenting styles predicted higher levels of adolescent drug involvement is consistent with Baumrind's (1991) typology, which emphasises that both excessive control and lack of control undermine healthy adolescent development. Prior studies have similarly found that adolescents exposed to harsh, punitive discipline or to indulgent permissiveness are more likely to seek validation through peer groups and risky behaviours, including substance use (Antunes et al., 2015; Benchaya et al., 2019). Although authoritative parenting was negatively related to drug involvement, the lack of statistical significance in this study contrasts with research that has consistently identified authoritative parenting as a protective factor (Chassin et al., 2005). This divergence may reflect contextual realities in Southeastern Nigeria, where socioeconomic

hardship and changing family structures may limit parents' ability to implement authoritative practices fully.

The weak but negative association between socioeconomic status and drug involvement also requires careful interpretation. While some studies suggest that low SES exacerbates adolescent vulnerability by limiting resources and increasing stress (Chen & Jacobson, 2012), others argue that affluence may equally heighten risks by reducing parental supervision or increasing exposure to high-pressure environments (Luthar & Latendresse, 2005). In the present study, SES did not emerge as a significant predictor, suggesting that other contextual factors, such as peer dynamics or community-level availability of drugs like "Mkpuru Mmiri," may overshadow its role.

In line with previous research, age emerged as a significant predictor, with older adolescents showing greater involvement in substance use (NIDA, 2011; Stanovich et al., 2013). This pattern is unsurprising, given that older adolescents enjoy greater autonomy, interact more with peers, and navigate environments that present higher risks. Gender, however, was not significant in predicting drug involvement, supporting recent evidence that the traditional gender gap in substance use is narrowing (Josiah & Aina, 2020). Similarly, birth order showed no predictive effect, corroborating studies that question its utility in explaining risky behaviours (Stagner, 2009; Stewart & Eckstein, 2012).

Overall, the findings highlight that while demographic factors such as age remain robust predictors, family dynamics—particularly parenting styles—carry greater weight in shaping adolescent substance use in the Nigerian context.

Conclusion

The present study investigated the predictive influence of demographic and family-related factors on adolescent substance involvement in Southeastern Nigeria. The findings indicated that authoritarian and permissive parenting styles, as well as age, were significant predictors of adolescent substance use. In contrast, authoritative parenting and socioeconomic status were negatively associated with substance involvement, though not statistically significant, while gender and birth order showed no predictive value. These results highlight that parenting practices and developmental stage play more critical roles than demographic characteristics in shaping adolescent drug involvement in this context. Efforts to reduce substance use among Nigerian adolescents should therefore focus on strengthening family-based interventions and providing targeted support for older adolescents who are most at risk.

The findings have both theoretical and practical implications. Theoretically, they partially support Baumrind's parenting framework by confirming the risks associated with authoritarian and permissive styles, while challenging the universality of authoritative parenting as a protective factor. This suggests the need to adapt Western-developed parenting theories to the Nigerian cultural context, where factors such as economic pressures, extended kinship

networks, and changing social norms may affect their relevance. Practically, the study emphasizes the importance of parental education and support programs, encouraging parents to adopt balanced parenting strategies that combine warmth and structure, while avoiding extremes of control or indulgence. Schools and community organizations are encouraged to focus preventive interventions on older adolescents through mentorship, peer education, and outreach campaigns to build resilience and life skills.

However, the study has several limitations. Its cross-sectional design prevents causal conclusions, and the reliance on self-report measures may have introduced response biases. The purposive sampling of public school students also limits the generalizability of the findings to adolescents in private schools or those outside the school system. Future research should incorporate longitudinal designs to better track developmental trajectories of substance involvement, qualitative methods to capture cultural nuances, and explore potential mediators like peer influence, religiosity, and mental health. Expanding the scope of the study to include adolescents from other regions of Nigeria would further strengthen the evidence base for intervention strategies.

Recommendations

1. Parents should be sensitised through structured programs to adopt balanced, authoritative parenting practices while avoiding authoritarian and permissive extremes.
2. Schools should integrate preventive drug education into their curricula and establish mentorship programs to provide adolescents with positive role models.
3. Community and youth-based organisations should develop peer-led initiatives, recreational outlets, and life-skills training to build resilience against substance use.
4. Government agencies, including the NDLEA, should collaborate with schools, faith-based institutions, and community leaders to design culturally relevant drug prevention campaigns, particularly in response to the spread of methamphetamine ("Mkpuru Mmiri").
5. Future studies should adopt longitudinal and mixed-methods approaches to capture both the developmental and cultural dynamics influencing adolescent drug involvement across diverse regions of Nigeria.

References

Akinnawo, E. O., Jayeola, D. T., Balogun, A. G., &Uye, E. E. (2025). Psychopathologies and parental factors as predictors of substance abuse among in-school adolescents in Akungba-Akoko, Nigeria. African Journal of Alcohol & Drug Abuse, 12(1), 49–59. https://doi.org/10.4314/ajada.v12i1.6

Antunes, H. K., Andersen, M. L., Tufik, S., & de Mello, M. T. (2015). The role of parenting styles in adolescents' illicit drug use. *Addictive Behaviors, 45*, 149–155. https://doi.org/10.1016/j.addbeh.2015.01.018

Barclay, K., Myrskylä, M., Tynelius, P., Berglind, D., & Rasmussen, F. (2016). Birth order and hospitalization for alcohol and narcotics use in Sweden. *Drug and Alcohol Dependence*, 167, 15-22. https://doi.org/10.1016/j.drugalcdep.2016

.08.023

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*(1), 56–95. https://doi.org/10.1177/0272431691111004

Becker, G. S. (1960). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.

Benchaya, M. C., Bisch, N. K., Moreira, T. C., Ferigolo, M., & Barros, H. M. T. (2019). Non-authoritative parenting styles and their relation with illicit drug use in adolescence: A systematic review. *Drug and Alcohol Dependence, 201*, 158–167. https://doi.org/10.1016/j.drugalcdep.2019.05.020

Bishop, L., & Barclay, K. (2022). Birth order and health events attributable to alcohol and narcotics in midlife: A 25-year follow-up of a national Swedish birth cohort and their siblings. *SSM - Population Health*, 19, 101219. https://doi.org/10.1016/j.ssmph.2022.101219

Buchmann, C. (2002). Measuring family socioeconomic status in comparative education research. *International Journal of Comparative Sociology, 43*(1), 100–118. https://doi.org/10.1177/002071520204300105

Chassin, L., Hussong, A., Barrera, M., Molina, B. S. G., Trim, R., & Ritter, J. (2005). Adolescent substance use. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 665–696). Wiley.

Chen, P., & Jacobson, K. C. (2012). Developmental trajectories of substance use from early adolescence to young adulthood: Gender and racial/ethnic differences. *Journal of Adolescent Health, 50*(2), 154–163. https://doi.org/10.1016/j.jadohealth.2011.05.013

Christopher, J., & Harcourt, D. (2013). Parental monitoring and adolescent risk-taking in Nigeria. *Journal of Child and Family Studies, 22*(1), 52–61. https://doi.org/10.1007/s10826-012-9587-9

Erhabor, J., Boakye, E., Osuji, N., Obisesan, O., Osei, A. D., Mirbolouk, H., Stokes, A. C., Dzaye, O., El-Shahawy, O., Rodriguez, C. J., Hirsch, G. A., Benjamin, E. J., DeFilippis, A. P., Robertson, R. M., Bhatnagar, A., & Blaha, M. J. (2023). Patterns of tobacco product use and substance misuse among adolescents in the United States. *Preventive Medicine Reports, 33*, 102207. https://doi.org/10.1016/j.pmedr.2023.102207

Fasoranti, O. O., & Olusola, O. (2012). Family structure and substance use among adolescents in Southwest Nigeria. *Journal of Social Sciences, 30*(2), 127–133. https://doi.org/10.1080/09718923.2012.11893028

Humeniuk, R., Ali, R., Babor, T., Farrell, M., Formigoni, M., Jittiwutikarn, J., … & Poznyak, V. (2008). Validation of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST). *Addiction, 103*(6), 1039–1047. https://doi.org/10.1111/j.1360-0443.2007.02114.x

Josiah, O., & Aina, A. (2020). Gender differences in adolescent substance use in Nigeria: A growing concern. *African Journal of Drug and Alcohol Studies, 19*(1), 45–59. https://doi.org/10.4314/ajdas.v19i1.4

Jumbe, S., Kamninga, T. M., Kalu, U.-G., Nyali, J., Saleh, L., Newby, C., et al. (2025). A systematic review and meta-analysis of factors associated with adolescent substance use in Africa, 2000 to 2020. Addiction, 120(6), 1127–1142. https://doi.org/10.1111/add.700231142

Luthar, S. S. (2003). The culture of affluence: Psychological costs of material wealth. *Child Development, 74*(6), 1581–1593. https://doi.o rg/10.1046/j.1467-8624.2003.00625.x

Luthar, S. S., & Latendresse, S. J. (2005).

Children of the affluent: Challenges to well-being. *Current Directions in Psychological Science, 14*(1), 49–53. https://doi.org/10.1111/j.0963-7214.2005.00333.x

Marsiglia, F. F., Huang, C.-K., Williams, J. H., Munyuwiny, S., Makunyane, L., Molobe, D. I., Freeman, R., Kulis, S., Ogbonnaya, I., & Lightfoot, E. (2025). Substance use among adolescents in Sub-Saharan Africa: A narrative review of epidemiological data. African Journal of Alcohol & Drug Abuse, 12(1), 79 - 111. https://doi.org/10.4314/ajada.v12i1.5

National Drug Law Enforcement Agency (NDLEA). (2021). National Drug Use Survey 2021.National Drug Law Enforcement Agency, Nigeria.

National Institute on Drug Abuse (NIDA). (2011). *Preventing drug use among children and adolescents: A research-based guide for parents, educators, and community leaders* (2nd ed.). National Institutes of Health. https://nida.nih.gov/publications/preventing-drug-use-among-children-adolescents

Oboh, A. C., & Oboh, F. C. (2020). Psychometric properties of the ASSIST among Nigerian adolescents. *Nigerian Journal of Psychological Research, 16*(2), 88–101.

Ojiaku, M. E., &Nwokoro, C. E. (2021). Age trends in adolescent substance use in Southeast Nigeria. *Journal of Substance Abuse Research, 12*(3), 101–110.

Oshodi, O. Y., & Aina, O. F. (2010). Substance use among adolescents in Nigeria: Patterns and socio-demographic correlates. *African Journal of Psychiatry, 13*(2), 82–89. https://doi.org/10.4314/ajpsy.v13i2.56319

Oweibia, M., Egberipou, T., Timighe, G. C., Ogbe, P. D., Elemuwa, U. G., & Wilson, T. R. (2025). Drug abuse in Nigeria: The public health impact of collective actions and inactions: A systematic review. https://doi.org/10.1101/2025.05.13.25327537

Son, Y., Hong, S., Yim, Y., Kim, S., Lee, H., Lee, K., Kim, H. J., Jo, H., Park, J., Oh, J., Lee, S., Lee, H., Nehs, C. J., Smith, L., Yon, D. K., & Kang, J. (2025). Global prevalence of cannabis and amphetamine / methamphetamine use among adolescents in 47 countries: A population-based study from the WHO database. *World Journal of Pediatrics, 21*(3), 291–305. https://doi.org/10.1007/s12519-025-00883-w

Stagner, R. (2009). Birth order and patterns of drug use: Evidence from the DARP follow-up study. *Journal of Drug Issues, 39*(2), 423–442. https://doi.org/10.1177/002204260903900205

Stanovich, K. E., West, R. F., & Toplak, M. E. (2013). Myside bias, rational thinking, and intelligence. *Current Directions in Psychological Science, 22*(4), 259–264. https://doi.org/10.1177/0963721413480174

Stewart A E and Eckstein D, 2012 Birth order within individual psychology.*Journal of Individual Psychology, 68*(1), 1–3.

United Nations Office on Drugs and Crime. (2021, June 26). *UNODC World Drug Report 2021: Pandemic effects ramp up drug risks as youth underestimate cannabis dangers*. United Nations Office on Drugs and Crime. https://www.unodc.org/conig/en/stories/unodc-world-drug-report-2021_-pandemic-effects-ramp-up-drug-risks--as-youth-underestimate-cannabis-dangers.html

Valente, J. Y., Cogo-Moreira, H., & Sanchez, Z. M. (2019). Gradient of association between parenting styles and adolescent drug use. *Addictive Behaviors, 89*, 99–105. https://doi.org/10.1016/j.addbeh.2018.09.029

Valkov, P. (2018). Birth order and its relatedness to substance use disorder: An empirical research in Bulgaria. *International Journal of Educational and Psychological Studies*, 10(2), 154-158.

Wang, L., & Bertram, W. (2022, February 8). *New data on formerly incarcerated people's*

*employmentreveallabor marker injustices. Prison Policy Initiative.*https://www.prisonpolicy.org/blog/2022/02/08/employment/

World Health Organization (WHO). (2010). *Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Manual for use in primary care*. WHO Press. https://www.who.int/publications/i/item/978924159938-2