

Drug abuse and antisocial behaviour among secondary school students in Calabar Metropolis, Cross River State, Nigeria: A Correlational Study.

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Abstract

While drug abuse and antisocial behaviour have each been documented among Nigerian secondary school students, and their conceptual link is widely assumed, few studies have formally tested the statistical relationship between the two constructs within a single, jointly measured sample, and none have done so specifically within Calabar Metropolis, Cross River State. This study tested the relationship between drug abuse and antisocial behaviour among 350 secondary school students in Calabar Municipality and Calabar South Local Government Areas, using a descriptive correlational design. Data were collected using a structured, anonymously administered questionnaire and analysed using Pearson product-moment correlation and simple linear regression. Results revealed a statistically significant, moderate-to-strong positive correlation between drug abuse and antisocial behaviour ($r = 0.457$, $p < 0.001$), with drug abuse significantly predicting antisocial behaviour ($B = 0.467$, $t = 9.584$, $p < 0.001$) and explaining approximately 20.9% of the variance in antisocial behaviour scores. This finding provides empirical evidence of the drug abuse–antisocial behaviour relationship within Calabar Metropolis, extending prior Cross River State evidence documented descriptively in other local government areas, and is interpreted through Hirschi's Social Control Theory, under which a weakened social bond elevates risk for both forms of deviance simultaneously. It is recommended that schools integrate drug-abuse prevention and antisocial behaviour management into a single, coordinated guidance and counselling programme rather than addressing the two problems in isolation.

Key words: Drug abuse, antisocial behaviour, Students, teachers, schools

Introduction

The conceptual literature consistently frames drug abuse and antisocial behaviour among adolescents as closely interrelated rather than independent phenomena. Ibanga (2025), studying secondary school students in Calabar Municipality, observed that a good number of school-age children could be found roaming streets and markets during school hours engaging in substance use, behaviour directly linked in the same study to reports of stealing, violence, gangsterism, harassment, and disregard for constituted school authority. This conceptual overlap, in which drug abuse is understood not merely as a health concern but as one component of a broader constellation of adolescent deviance, has received some direct empirical support within Cross River State. A socio-legal analysis of youth antisocial behaviour in Northern Cross River State found that the availability of substances such as local gin, marijuana, and cigarettes was very strongly and significantly correlated with antisocial behaviours including truancy, cult clashes, and street fighting, grounded theoretically in Shaw and McKay's Social Disorganization Theory and Hirschi's Social Control Theory (Udie, 2025). A separate study of youths across the Southern Senatorial District of Cross River State, which includes Calabar Municipality and Calabar South, similarly documented a significant relationship between substance abuse and violent behaviour (Aigbe et al., 2021).

This Cross River State-specific evidence sits within a considerably larger Nigerian and international literature linking adolescent substance use to a wider range of conduct problems, although findings are not universally consistent in magnitude or direction. Obadeji, Kumolalo, Oluwole, Ajiboye, Dada, and Ebeyi (2020), surveying 682 senior secondary school students in Ado-Ekiti, Ekiti State, reported a lifetime substance-use prevalence of 17.3% and found that lifetime substance use significantly predicted psychological distress, while parental substance use

and absence of direct parental care independently elevated adolescents' own substance-use risk, pointing to family-level rather than purely individual mechanisms. Adesina, Adebayo, and Iken (2020), studying in-school adolescents in Zaria Local Government Area, Kaduna State, similarly identified socio-demographic and school-related factors, rather than substance availability alone, as significant correlates of psychoactive substance use, a pattern broadly consistent with Udie's (2025) and Aigbe et al.'s (2021) Cross River State findings but cautioning against treating substance availability as a sufficient explanation on its own. Internationally, the co-occurrence of substance use and other problem behaviours, including delinquency, aggression, and precocious risk-taking, has long been theorised as reflecting a single, underlying "problem behaviour syndrome" rather than two independently caused phenomena (Jessor & Jessor, 1977), a proposition subsequently supported by Hawkins, Catalano, and Miller's (1992) influential review, which identified early conduct problems, family management practices, and peer influence as shared risk factors for both adolescent substance use and other antisocial outcomes. Not all evidence is concordant, however: some Nigerian prevalence studies report substantial substance use without directly measuring or establishing a corresponding relationship with antisocial conduct, underscoring that prevalence alone does not confirm the co-occurrence this study investigates, and reinforcing the need for studies, like the present one, that jointly measure both constructs in the same sample.

The antisocial-behaviour side of this relationship has itself been separately documented across Nigeria at a scale that reinforces the present study's focus. Obikeze and Obi (2015), surveying 500 senior secondary school adolescents across ten schools in Awka metropolis, Anambra State, found aggressive behaviour, including physical fighting and bullying, to be highly prevalent, while Bishop, Okagbue, and Odukoya (2020), analysing externalizing-behaviour data

(aggression, delinquency, and hyperactivity) from 1,770 pupils and students across three Ogun State Local Government Areas, demonstrated that such behaviour varies systematically by age, gender, and school type, underscoring that antisocial and externalizing conduct in Nigerian secondary schools is itself a multiply-determined outcome rather than attributable to any single cause. Beyond Nigeria, a World Health Organization (2018) global review confirmed that alcohol and other substance use are consistently associated with elevated rates of interpersonal violence and injury among adolescents across income settings, while a comparative study among Malaysian secondary school students similarly identified peer deviant affiliation, alongside low family income and attitudes towards aggression, as significant predictors of aggressive behaviour (Fauzi, Mohd Zulkefli, & Baharom, 2023), suggesting that the drug abuse-antisocial behaviour association examined in this study operates within a broader, cross-nationally replicated pattern of shared risk factors for adolescent conduct problems. Within Nigeria specifically, Kolawole, Ogunyemi, and Lucas (2025), surveying 800 Lagos secondary school students, reported substantial substance-use prevalence alongside high awareness of its effects, while a large multi-zone Nigerian study of 4,078 students found parental and peer substance use, rather than availability alone, to be the strongest correlates of adolescent alcohol experimentation (Vigna-Taglianti et al., 2021), a finding consistent with a United Nations Office on Drugs and Crime (2023) assessment that family and peer environments, more than substance availability per se, typically drive the progression from experimentation to more entrenched use among adolescents globally.

Despite this accumulating evidence, no identified study has formally tested the statistical relationship between drug abuse and antisocial behaviour, using a single, jointly measured instrument and sample, specifically within Calabar Metropolis. This study addresses that gap directly by testing the hypothesis that drug abuse and antisocial behaviour are significantly,

positively related among secondary school students in Calabar Metropolis, interpreted through Hirschi's Social Control Theory (Hirschi, 1969), which posits that deviant behaviour, including both drug abuse and antisocial conduct, occurs when an individual's bond to conventional society, encompassing attachment, commitment, involvement, and belief, is weak or broken. Because the same weak social bond that fails to restrain one form of deviant conduct is theorised to also fail to restrain the other, the theory directly predicts a positive relationship between drug abuse and antisocial behaviour, the central hypothesis tested in this study.

Each of Hirschi's four bond elements plausibly links to both constructs examined here. Attachment, the emotional connection to parents, teachers, and pro-social peers, is expected to reduce both substance use and antisocial conduct by making a young person sensitive to the disapproval such behaviour would provoke; commitment, the stake a young person has built in conventional lines of action such as academic achievement, discourages both behaviours because either risks jeopardising that investment; involvement, the sheer amount of time absorbed by conventional activities, is expected to leave less unstructured time available for either substance use or delinquent conduct; and belief, the acceptance of the moral validity of conventional rules, is expected to directly restrain both behaviours where it is strong. It is important to note, however, that the present study measured drug abuse and antisocial behaviour directly but did not independently measure attachment, commitment, involvement, or belief; Hirschi's theory is therefore employed here as an interpretive framework for understanding why the two constructs might be expected to co-vary, rather than as an empirically tested causal mechanism, a distinction revisited in the Discussion.

Statement of hypothesis

HO1: There is no significant relationship between drug abuse and antisocial behaviour among secondary school students in Calabar Metropolis.

Method

This study adopted a descriptive correlational research design. The study population comprised all students in Junior Secondary School 1 through Senior Secondary School 3 in public and private secondary schools within Calabar Municipality and Calabar South Local Government Areas, estimated at 11,660 students. A sample of 350 students was drawn using a multistage proportionate stratified random sampling procedure, stratified by two Local Government Areas (Calabar Municipality and Calabar South) and by school type (2 public and 4 private) [AUTHOR ACTION REQUIRED – replace this bracket with the following, taken from your actual sampling records: (i) the total number of schools in each of the four strata (Calabar Municipality public-9, Calabar Municipality private-14, Calabar South public 6, Calabar South private-11). 2 private schools were selected from Calabar municipality, 2 selected from public schools, while 2 private schools were selected from Calabar south and 2 selected from private school using purposive selection based on accessibility); (ii) 175 respondents were drawn from the four schools in Calabar municipality while 175 were drawn from schools in Calabar South.

Data were collected using the Drug Abuse and Antisocial Behaviour Questionnaire (DAABQ), developed by the researchers, comprising six-item, five-point Likert scales (1 = strongly disagree to 5 = strongly agree) measuring Extent of Drug Abuse (Cronbach's alpha = 0.851) and Extent of Antisocial Behaviour (Cronbach's alpha = 0.860). Face and content validity were established through expert review, and the instrument was piloted with 30 students outside the main study area. Composite scores for each construct were computed as the mean of the six constituent items. Hypothesis One was tested using Pearson product-moment correlation,

examining the relationship between drug abuse and antisocial behaviour composite scores, followed by simple linear regression to quantify the predictive relationship, tested at the 0.05 level of significance. Ethical approval was obtained from the relevant research ethics committee of the University of Calabar, with parental/guardian consent and student assent obtained given respondents' minor status, and questionnaires were administered anonymously.

The six drug-abuse items surveyed students' self-reported frequency of, and exposure to, commonly available substances (alcohol, cigarettes, and cannabis) and related peer influence over the recall period specified in the instrument, while the six antisocial-behaviour items covered conduct such as truancy, physical aggression, defiance of school authority, and property-related misconduct. Item development proceeded from the literature reviewed above, followed by expert review by specialists in educational psychology and measurement, who assessed each item for relevance and clarity. The 30-student pilot sample was drawn from a school outside the two study Local Government Areas and was used to establish the reliability estimates reported above; construct validity was not separately assessed in this study, a limitation acknowledged in the Discussion.

Results

Table 1 presents the Pearson correlation and regression results testing the relationship between drug abuse and antisocial behaviour. As shown in Table 1, a statistically significant, moderate-to-strong positive correlation was found between drug abuse and antisocial behaviour ($r = 0.457$, $p < 0.001$), and the null hypothesis (H_0) was rejected. Drug abuse significantly predicted antisocial behaviour ($B = 0.467$, $t = 9.584$, $p < 0.001$), with drug abuse alone explaining approximately 20.9% of the variance in antisocial behaviour scores ($R^2 = 0.209$). The full

regression model, including the standard error of the estimate, adjusted R^2 , and the overall ANOVA F-test, is reported in Table 1.

Table 1. Pearson Correlation and Full Regression Summary for Antisocial Behaviour Regressed on Drug Abuse (N = 350)

Statistic	Value
Drug Abuse: Mean (SD)	3.33 (0.62)
Antisocial Behaviour: Mean (SD)	3.29 (0.63)
Pearson r	0.457
Correlation p-value	< 0.001
R (multiple correlation coefficient)	0.457
R-squared (R^2)	0.209
Adjusted R-squared	0.207
Standard error of the estimate (SEE)	0.561
ANOVA F (df = 1, 348)	91.85
ANOVA p-value	< 0.001
Constant (intercept, B_0)	1.741
Constant: standard error	0.164
Constant: t-value	10.609
Constant: p-value	< 0.001
Drug Abuse slope (unstandardized B)	0.467
Slope: standard error	0.049
Slope: standardized β	0.457
Slope: t-value	9.584
Slope: p-value	< 0.001
Regression equation	Antisocial = 1.741 + 0.467 (Drug)
Decision	Reject H_0

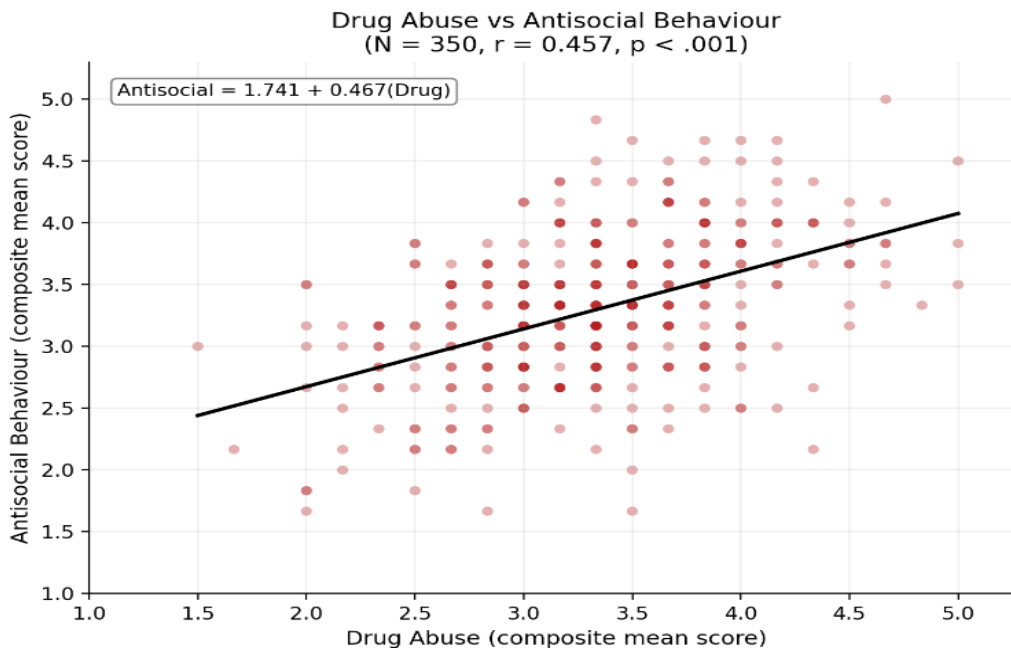


Figure 1. Scatterplot of Drug Abuse against Antisocial Behaviour with fitted regression line, sample size, and regression equation.

Discussion

The central finding of this study, a statistically significant, moderate-to-strong positive correlation between drug abuse and antisocial behaviour, provides empirical evidence of this relationship within Calabar Metropolis. This finding is directly consistent with, and can be read as a Calabar Metropolis-specific extension of, Udie's (2025) finding of a very strong correlation between substance availability and antisocial behaviours in Northern Cross River State, and Aigbe et al.'s (2021) documented association between substance abuse and violent behaviour in the Southern Senatorial District, which includes Calabar Metropolis itself. That drug abuse alone explained approximately 21% of the variance in antisocial behaviour indicates a substantial, though partial, shared basis between the two constructs, consistent with Hirschi's Social Control Theory's prediction that a single underlying mechanism, weakened social bonding, elevates risk

for both forms of deviance simultaneously, while leaving room for antisocial behaviour to arise through pathways independent of drug abuse specifically.

Prior to inferential testing, the assumptions underlying Pearson correlation and simple linear regression were examined: visual inspection of the scatterplot (Figure 1) supported an approximately linear relationship between the two composite scores; standardized residuals did not reveal cases exceeding conventional outlier thresholds (± 3 SD); and no observation exceeded conventional Cook's distance or leverage thresholds for undue influence on the regression estimates

The associated R^2 indicates that drug abuse alone accounts for approximately 21% of the variance in antisocial behaviour scores; correspondingly, approximately 79.1% of the variance in antisocial behaviour remains unexplained by drug abuse. This unexplained variance is substantial and cautions against treating drug abuse as the dominant explanation for antisocial conduct among the students sampled; rather, drug abuse should be understood as one significant, but partial, correlate among a wider set of family, peer, school, and individual-difference factors likely to jointly shape antisocial behaviour in this population.

Alternative explanations for the observed association also merit consideration. Rather than drug abuse directly elevating antisocial conduct, both behaviours may be jointly produced by a third, unmeasured factor, such as low parental monitoring, peer delinquency, or low self-control, consistent with self-control theory's alternative account of the same co-occurrence pattern reviewed above. It is equally plausible that the association is bidirectional, with antisocial peer association increasing exposure to, and normalisation of, substance use, just as substance use may increase susceptibility to antisocial peer influence; the cross-sectional design of this study cannot

adjudicate between these competing directional accounts, a limitation already acknowledged in the Conclusion.

These findings nonetheless carry practical implications for schools, families, and prevention programming in Calabar Metropolis. For schools, the moderate-to-strong association supports co-locating drug-abuse prevention and antisocial-behaviour management within a single guidance and counselling framework, as recommended below, rather than administering these as separate, uncoordinated programmes. For families, the substantial unexplained variance suggests that drug-abuse-focused interventions alone are unlikely to fully address antisocial conduct, and that parenting-focused and family-strengthening components, consistent with the attachment and commitment elements of Hirschi's theory discussed above, should be integrated alongside substance-focused messaging. For prevention programming more broadly, the results suggest that resources should not be allocated to drug-abuse-reduction programmes on the assumption that antisocial behaviour will be substantially reduced as a secondary benefit; targeted, dedicated antisocial-behaviour-management components remain necessary regardless of progress on drug-abuse prevention specifically.

Conclusion and recommendations

This study concludes that drug abuse and antisocial behaviour are significantly, positively related among secondary school students in Calabar Metropolis, providing direct, quantified, locally specific evidence consistent with established criminological theory and prior Cross River State findings. It is recommended that schools integrate drug-abuse prevention and antisocial behaviour management into a single, coordinated guidance and counselling programme rather than addressing the two problems separately, and that future longitudinal research examine the causal direction of this relationship, which the present cross-sectional design cannot establish.

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