

Factors Influencing Teenage Drug Abuse in Nigeria: A Regression Analysis of Socio-economic, Peer Pressure, Family Structure and Mental Health

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ABSTRACT

This study investigates the factors influencing teenage drug abuse in Nigeria, focusing on socio-economic status, peer pressure, family structure, and mental health. Using secondary data from the National Survey on Drug Use and Health, a multiple regression analysis was conducted to explore how these variables predict the likelihood of drug abuse among Nigerian adolescents. The results indicate that peer pressure ($\beta = 0.35$) is the strongest predictor, suggesting that adolescents are highly influenced by their social circles in their drug use behaviors. Socio-economic status ($\beta = 0.25$) and mental health ($\beta = 0.30$) also positively correlate with drug abuse, highlighting the role of external access to drugs and emotional struggles as contributing factors. Conversely, family structure ($\beta = -0.15$) was found to have a negative relationship, where stronger family support reduces the likelihood of drug abuse. The findings underscore the complex interplay of social, familial, and individual factors in teenage drug abuse. The study recommends targeted interventions that focus on peer education, family support programs, and mental health services to effectively reduce teenage drug use in Nigeria.

Keywords

Teenage drug abuse, Peer pressure, Socio-economic Status, Family structure, Mental health, Regression analysis, Nigeria.

Introduction

Teenage drug abuse remains a pressing public health issue in Nigeria. It has far-reaching consequences, including poor academic performance, engagement in criminal activity, mental health challenges, and long-term addiction. Reports by the Substance Abuse and Mental Health Services Administration, SAMHSA [1] highlight the increasing prevalence of substance use among adolescents, underscoring the urgency of addressing this epidemic with evidence-based strategies.

Despite numerous public health interventions, there is limited empirical research using robust statistical methods, especially regression analysis; to quantify the relationship between social and psychological predictors and teenage drug use in the Nigerian

context. This study seeks to bridge this gap by analyzing how socio-economic status, peer pressure, family structure, and mental health factors influence adolescent drug behavior.

The aim of the study is to identify the key predictors of teenage drug abuse in Nigeria using a multiple regression framework. Understanding these predictors can support targeted interventions for prevention and treatment at both community and national levels.

Purpose of the Study

The primary objective of this research is to identify the key predictors of teenage drug abuse in Nigeria. The study analyzed the influence of socio-economic background, peer pressure, family structure, and mental health on adolescents' likelihood of engaging in substance abuse. The findings will provide valuable insights for policymakers, educators and health professionals in designing effective intervention strategies.

While there is extensive literature on drug abuse among teenagers, there is a lack of research that uses regression analysis to assess the predictive factors of drug use, especially in Nigerian contexts. By using the NSDUH dataset, this study will fill this gap by offering a statistical analysis of the factors contributing to teenage drug abuse in Nigeria.

Theoretical Background

This study is guided by the following sociological and psychological theories:

- **Social Learning Theory**, Bandura [2]: Proposes that drug abuse is learned through observation and imitation of behaviors exhibited by peers and family members.
- **Strain Theory**, Merton [3]: Suggests that individuals from lower socio-economic backgrounds may resort to drug use due to frustration and a lack of legitimate means to achieve success.
- **Family Systems Theory**, Minuchin [4]: Highlights the influence of family dynamics, such as parental supervision and household stability, on adolescent behavior.

Methodology

Research Design

A quantitative design using secondary data from the 2023 National Survey on Drug Use and Health (NSDUH) was employed. The study used multiple regression to estimate the relationship between independent variables (socio-economic status, peer pressure, family structure, and mental health) and the dependent variable (teenage drug use).

Population and Sampling

The target population was Nigerian adolescents aged 13–19 years. The NSDUH data represents adolescents across all geopolitical zones, stratified by age, gender, and socio-economic status. The sample size ($n = 396$) was sufficient for reliable statistical analysis.

Measurement of Variables

The NSDUH provides structured survey data, including variables that capture:

- **Socio-economic status**: Parental education, income level
- **Peer pressure**: Peer drug use, exposure to offers
- **Family structure**: Single vs. two-parent household, parental supervision
- **Mental health**: Presence of depression, anxiety
- **Drug use**: Binary outcome (1 = user, 0 = non-user)

Multiple Regression Model

The core of this study is the application of multiple regression analysis to examine how different factors predict teenage drug abuse in Nigeria. The regression model was used to assess the relationship between various independent variables (socio-economic factors, family structure, peer pressure, mental health) and the dependent variable (teenage drug use).

The multiple regression model was expressed as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where:

Y = Likelihood of teenage drug abuse (dependent variable); measured as a binary variable: 0 = no drug use, 1 = drug use.

X_1 = Socio-economic status (e.g., household income, parental education).

X_2 = Peer pressure (e.g., the extent to which peers use drugs, or the frequency of peer offers of drugs).

X_3 = Family structure (e.g., family type, parental monitoring, and involvement).

X_4 = Mental health (e.g., indicators for depression, anxiety, stress).

β_0 = Intercept, which represents the baseline likelihood of drug abuse when all independent variables are zero.

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients, representing the impact of each predictor on the dependent variable (drug use).

ε = Error term, accounting for unobserved factors influencing drug use.

Hypotheses

Based on the regression model, the following hypotheses were tested:

H_{01} : Socio-economic status (X_1) has no significant effect on teenage drug use.

H_{11} : Socio-economic status (X_1) has a significant effect on teenage drug use.

H_{02} : Peer pressure (X_2) has no significant effect on teenage drug use.

H_{12} : Peer pressure (X_2) has a significant effect on teenage drug use.

H_{03} : Family structure (X_3) has no significant effect on teenage drug use.

H_{13} : Family structure (X_3) has a significant effect on teenage drug use.

H_{04} : Mental health (X_4) has no significant effect on teenage drug use.

H_{14} : Mental health (X_4) has a significant effect on teenage drug use.

Data Analysis

The data was analyzed using SPSS and the following steps were taken:

- **Descriptive Statistics**: Providing an overview of the distribution of socio-economic, family, peer pressure, and mental health factors, as well as the extent of drug abuse among Nigerian teenagers.
- **Multiple Regression Analysis**: Conducting multiple regression to determine the relationship between the independent variables and teenage drug use. The results include:
 - **R-squared**: To measure how well the independent variables explain the variance in drug abuse.
 - **Beta coefficients**: To quantify the strength and direction of the relationships between each independent variable and the dependent variable.
 - **Significance testing**: p-values for each independent variable to determine if the relationship is statistically significant (typically using a threshold of $p < 0.05$).

- o **Collinearity Diagnostics:** Checking for multicollinearity between predictors to ensure that the independent variables are not highly correlated with one another, which could distort the regression results.
- o **Model Validation:** Performing checks for model fit using VIF (Variance Inflation Factor) to ensure that the regression model is reliable and valid.

- **Economic Empowerment Policies:** Addressing socio-economic disparities to reduce financial pressures that contribute to drug abuse.

Results

Descriptive Summary

Descriptive statistics revealed the following key characteristics of the respondents:

- **68%** reported having been offered drugs by their peers, indicating a high level of peer influence.
- **43%** exhibited symptoms of moderate to severe depression, reflecting notable mental health challenges.
- **37%** came from single-parent households, suggesting varying levels of family structural support.

Regression Results

Table 1: Multiple Regression Output for Predictors of Teenage Drug Abuse.

Predictor Variable	Unstandardized Beta	Standardized Beta	P-value
Socio-economic status	0.42	0.25	0.019
Peer pressure	0.61	0.35	0.003
Family structure	-0.28	-0.15	0.042
Mental health	0.53	0.30	0.014
R ² = 0.68, F(4,391) = 51.2, p < .001			

Interpretation

Peer pressure is the strongest predictor of teenage drug abuse ($\beta = 0.35$, $p < .01$), followed by mental health issues ($\beta = 0.30$, $p < .05$). Family structure showed a significant negative effect ($\beta = -0.15$, $p < .05$), indicating that stable family environments reduce the risk of substance use.

Implications

The findings underscore the need for targeted interventions, including:

- **Peer Education Programs:** Implementing school-based and community outreach initiatives to reduce peer influence on drug abuse.
- **Family Support Interventions:** Strengthening parental engagement and family-based preventive strategies.
- **Mental Health Services:** Expanding access to counseling and psychological support for teenagers at risk of substance abuse.

Originality/Value

This study contributes to the existing literature by applying regression analysis to examine the determinants of teenage drug abuse in Nigeria. Unlike previous qualitative studies, this research provides quantitative evidence on how socio-economic; peer, familial, and psychological factors predict substance abuse among Nigerian adolescents. The findings offer a robust foundation for data-driven policy formulation and program development aimed at curbing teenage drug abuse in Nigeria.

Conclusion

The findings of this study highlight the significant role of peer pressure, mental health, socio-economic background, and family dynamics in influencing drug abuse among Nigerian teenagers. Regression results show that peer influence and emotional stressors are the most impactful factors. This underscores the importance of comprehensive, multi-level interventions.

Recommendations

School-Based Peer Education: Develop programs that empower adolescents to resist peer pressure and understand drug risks.

Strengthen Family Support Systems: Promote parenting workshops and family counseling.

Mental Health Outreach: Establish adolescent-friendly psychological services in schools and communities.

Poverty Alleviation Measures: Address socio-economic inequalities through youth empowerment initiatives.

Ongoing Data Monitoring: Institutionalize national data systems for youth behavior surveillance and evidence-based policy adjustments

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