

**Peer Pressure, Family Dysfunction, and Neighbourhood Risk as Predictors of Smoking
Behaviour among Adolescents in Ogun State, Nigeria**

By

Mutiat Asiyambi

Department of Psychology, Federal College of Education (Special) Oyo, Nigeria
asiyanbimutiat017@gmail.com

Kabiru Adewale Adegunju

Department of Guidance and Counselling, University of Ilorin, Nigeria
kabiruadegunju259@gmail.com

Funke Ovili

Department of Counselling and Human Development Studies, University of Ibadan, Nigeria
funkeovili@gmail.com

Abstract

This study explored the psychosocial predictors of smoking behaviour among adolescents in Ogun State, Nigeria, focusing on the roles of peer pressure, family dysfunction, and neighbourhood risk factors. Employing a descriptive survey design, the study sampled 119 adolescents aged 12–18 years from three purposively selected Local Government Areas: Ado-Odo/Ota, Sagamu, and Abeokuta North. A snowball sampling technique ensured representation of both in-school and out-of-school adolescents from diverse socio-economic backgrounds. Data were collected using validated instruments, including the Peer Pressure Inventory, the McMaster Family Assessment Device, the Neighbourhood Risk Index, and an adapted Youth Smoking Survey. Descriptive statistics summarised participants' profiles, while Pearson's correlation and multiple regression analyses determined the relationships and predictive strengths of the psychosocial variables. Results indicated significant positive correlations among peer pressure, family dysfunction, neighbourhood risk, and smoking behaviour. Peer pressure emerged as the strongest individual predictor, followed by neighbourhood risk and family dysfunction. These findings highlight the critical influence of social and environmental contexts on adolescent smoking. The study underscores the need for early, context-sensitive interventions that integrate peer, familial, and community-level strategies to curb adolescent tobacco use in Nigeria.

Keywords: smoking behaviour, peer pressure, family dysfunction, neighbourhood risk

Introduction

Tobacco smoking remains one of the leading preventable causes of morbidity and mortality worldwide. According to the World Health Organization (2023), tobacco use accounts for more than 8 million deaths annually, with 1.2 million attributed to exposure to second-hand smoke. Alarmingly, most adult smokers begin during adolescence, a developmental phase marked by experimentation and social conformity (CDC, 2022). Studies from Europe and North America

have consistently highlighted the influence of peer relationships, family structure, and neighbourhood context on adolescents' smoking behaviours (Brook et al., 2021; Hiemstra et al., 2022). Adolescents embedded in socially disorganised environments, or exposed to deviant peer norms, are more likely to initiate and sustain tobacco use.

The psychosocial determinants of smoking in adolescents are increasingly viewed through an ecological lens, recognising the interaction between individual, familial, and environmental systems. For instance, in their study among Dutch adolescents, Hiemstra et al. (2022) found peer acceptance and perceived popularity to be strong predictors of cigarette use. Similarly, low parental monitoring and family conflict were linked to higher tobacco initiation rates in urban American youth (Thomas et al., 2023). These studies mirror the developmental and environmental risk model proposed by Jessor (2016), which posits that multiple overlapping stressors predict adolescent engagement in health-risk behaviours such as smoking.

In sub-Saharan Africa, shifting cultural values, urbanisation, and increased accessibility to tobacco products have contributed to rising smoking prevalence among youth (WHO-AFRO, 2021). In Ghana and Kenya, peer influence, familial instability, and exposure to community-level drug activities were significantly associated with adolescent smoking (Amosun et al., 2021; Nwankwo et al., 2022). In Nigeria, the Global Youth Tobacco Survey (GYTS, 2019) revealed that 6.2% of school-going adolescents currently use tobacco products, with peer pressure cited as the most prevalent motivating factor. This finding aligns with Omopo and Odedokun (2024), who demonstrated how peer networks among correctional inmates contributed to early smoking patterns. Likewise, Asiyambi, Omopo, Umanhonlen, and Shoyemi (2025) reported that most middle-aged smokers in Egbeda began smoking during adolescence due to peer conformity and minimal parental supervision.

Family dysfunction, including parental conflict, substance use, and emotional neglect, is a salient predictor of tobacco use in Nigeria. Offor et al. (2024) espoused on non-verbal expression of traumatic experiences and its consequences. Omopo, Offor, and Ogunbowale (2024) found that individuals with traumatic childhood experiences and low parental support were more prone to substance abuse in psychiatric settings. This observation resonates with Ogunbowale et al. (2025), who noted that emotional dysregulation among in-school adolescents often stemmed from unstable home environments. Moreover, Omopo's (2023) work on delinquency in Ibadan

secondary schools implicated both peer pressure and poor family bonding as triggers for risk-taking behaviour, including smoking.

Neighbourhood risk factors such as poor social control, poverty, drug accessibility, and crime further complicate the behavioural ecology of adolescent smokers. In their study on correctional inmates, Offor, Ogunbowale, and Omopo (2025) observed that childhood exposure to crime-ridden communities increased the likelihood of antisocial behaviour, including substance abuse. In similar research, Brook et al. (2021) affirmed that community-level stressors were associated with increased cigarette use among African-American adolescents. Locally, Omopo (2024) and Omopo and Odedokun (2024) documented how risky neighbourhood contexts amplified tobacco dependency among inmates, many of whom began smoking as adolescents.

Intervention studies also underscore the influence of contextual factors on smoking. Cognitive reframing therapy (Omopo & Odedokun, 2024), solution-focused therapy (Omopo & Odedokun, 2024), and reality therapy (Asiyanbi et al., 2025) have proven effective in reducing tobacco dependency, yet most applications target adult populations. Their findings, however, reinforce the need for early preventive interventions that target peer dynamics and familial relationships. Omopo (2024) further highlighted how marginalisation and systemic injustice perpetuate substance abuse, suggesting a deeper socio-political framework for understanding adolescent smoking.

Focusing on Ogun State, one of Nigeria's rapidly urbanising regions - the influence of peer clusters, unstable family systems, and exposure to deviant neighbourhood models becomes particularly pertinent. The state's growing industrialisation and migration inflows have led to a demographic shift, increasing adolescent exposure to drug-related behaviours. Despite available data from nearby states like Oyo (Omopo, 2023; Omopo & Odedokun, 2024), there is a notable research gap in Ogun, particularly among school-going adolescents. Therefore, this study aims to investigate the impact of peer pressure, family dysfunction, and neighbourhood risk factors on smoking behaviour among adolescents in Ogun State, offering evidence to inform targeted psychosocial interventions and policy actions.

Purpose of the Study

This study seeks to investigate the predictive influence of peer pressure, family dysfunction, and neighbourhood risk factors on smoking behaviour among adolescents in Ogun State, Nigeria. Given the growing concern over adolescent tobacco use and its associated health and social consequences, it is crucial to explore the psychosocial and environmental correlates that underpin such behaviours. The specific objectives of this study are as follows:

1. To examine the relationship between peer pressure, family dysfunction, neighbourhood risk factors, and smoking behaviour among adolescents in Ogun State, Nigeria.
2. To determine the combined effect of peer pressure, family dysfunction, and neighbourhood risk factors on smoking behaviour among adolescents in Ogun State, Nigeria.
3. To assess the relative contributions of peer pressure, family dysfunction, and neighbourhood risk factors to smoking behaviour among adolescents in Ogun State, Nigeria.

Hypotheses

The following hypotheses will be tested at the 0.05 level of significance:

- Ho1: There is no significant relationship between peer pressure, family dysfunction, neighbourhood risk factors, and smoking behaviour among adolescents in Ogun State, Nigeria.
- Ho2: There is no significant combined effect of peer pressure, family dysfunction, and neighbourhood risk factors on smoking behaviour among adolescents in Ogun State, Nigeria.
- Ho3: There is no significant relative contribution of peer pressure, family dysfunction, and neighbourhood risk factors to smoking behaviour among adolescents in Ogun State, Nigeria.

Methods

This study employed a descriptive survey design to investigate the relationship between peer pressure, family dysfunction, neighbourhood risk factors, and smoking behaviour among adolescents in Ogun State, Nigeria. The design allowed for an in-depth exploration of naturally

occurring psychosocial influences without experimental manipulation. Three Local Government Areas (LGAs) - Ado-Odo/Ota, Sagamu, and Abeokuta North were purposively selected due to their diverse socio-economic characteristics and the documented prevalence of adolescent risk behaviours in these areas. The study population consisted of adolescents aged 12–18 years, with a total of 119 participants. Snowball sampling was used to ensure that a representative sample of both in-school and out-of-school adolescents from various socio-economic backgrounds was included. The distribution of participants was as follows: 51 participants from Ado-Odo/Ota (urban-industrial), 29 from Sagamu (semi-urban), and 39 from Abeokuta North (peri-urban/rural). A structured questionnaire was used to collect data, comprising sections on peer pressure (measured using the Peer Pressure Inventory), family dysfunction (assessed using the McMaster Family Assessment Device – General Functioning Scale), neighbourhood risk (measured by the Neighbourhood Risk Index), and smoking behaviour (assessed through an adapted version of the Youth Smoking Survey).

The instruments were reviewed by experts in psychology and adolescent health to ensure content and face validity and were pilot-tested with 20 adolescents in Ijebu East LGA. Reliability was confirmed with Cronbach's alpha values exceeding 0.72 across all scales. Data collection took place over a three-week period, facilitated by trained field assistants who ensured that ethical procedures, including parental consent and participant assent, were strictly adhered to. Ethical approval was obtained from an institutional review board, and data were collected in schools, community centres, and informal adolescent gathering spots. Descriptive statistics, including frequencies, means, and standard deviations, were computed to summarise the data, while Pearson's Product Moment Correlation was employed to assess the relationships between peer pressure, family dysfunction, neighbourhood risk factors, and smoking behaviour. Multiple Regression Analysis was used to determine the combined and individual predictive power of these variables on adolescent smoking behaviour. All statistical tests were conducted at a significance level of 0.05.

Results and Discussion

Demographic Representation of the Participants

The demographic characteristics of the participants are summarised in the Table 1:

Table 1: Demographic Characteristics of Respondents

Demographic Variables	Frequency (n = 119)	Percentage (%)
Age		
12 - 14 years	40	33.6
15 - 17 years	56	47.1
18 years	23	19.3
Gender		
Male	64	53.8
Female	55	46.2
LGA		
Ado-Odo/Ota	51	42.9
Sagamu	29	24.4
Abeokuta North	39	32.8

The majority of participants (47.1%) were aged between 15 and 17 years, which aligns with the typical age range of adolescents typically targeted in studies examining smoking behaviours. Males represented a slightly larger portion of the sample (53.8%) compared to females (46.2%). Regarding location, the sample was fairly distributed across the three purposively selected LGAs, with 42.9% from Ado-Odo/Ota, 24.4% from Sagamu, and 32.8% from Abeokuta North. This distribution ensured representation from both urban and semi-urban/rural settings, allowing for a diverse sample in terms of socio-economic and environmental backgrounds.

Hypothesis Testing

Hypothesis 1: There is no significant relationship between peer pressure, family dysfunction, neighbourhood risk factors, and smoking behaviour among adolescents in Ogun State, Nigeria.

Table 2: Correlation Results for Hypothesis 1

Variables	Peer Pressure	Family Dysfunction	Neighbourhood Risk	Smoking Behaviour
Peer Pressure	1	0.355	0.412	0.499
Family Dysfunction	0.355	1	0.465	0.431
Neighbourhood Risk	0.412	0.465	1	0.564
Smoking Behaviour	0.499	0.431	0.564	1

The correlation analysis reveals significant positive relationships between peer pressure, family dysfunction, neighbourhood risk, and smoking behaviour. Peer pressure showed a moderate positive correlation with smoking behaviour ($r = 0.499$, $p = 0.000$), suggesting that adolescents who experience higher levels of peer pressure are more likely to engage in smoking. Family

dysfunction also showed a positive correlation with smoking behaviour ($r = 0.431$, $p = 0.000$), while neighbourhood risk factors exhibited the strongest relationship ($r = 0.564$, $p = 0.000$), indicating that adolescents living in higher-risk neighbourhoods are more likely to adopt smoking habits.

These findings support previous studies indicating that peer pressure and environmental factors are strong predictors of smoking behaviour among adolescents (Kumar et al., 2021; Wills et al., 2019). Peer influence is a well-documented factor that significantly shapes adolescents' health behaviours, including smoking (Schaeffer et al., 2020). Likewise, exposure to dysfunctional family environments and neighbourhoods characterised by high levels of risk—such as poverty, crime, and drug availability are known to increase susceptibility to smoking (Zhu et al., 2020). The present study reaffirms that adolescents are especially vulnerable during periods of identity formation and social dependence, making them more likely to emulate the behaviours of influential peers. Additionally, the lack of stable family support and protective structures creates a psychosocial vacuum in which risk-taking behaviours such as smoking may be normalised or go unchecked. Adolescents in such contexts may use smoking as a coping mechanism for emotional stress or as a means of achieving social belonging. In many cases, the combination of peer encouragement and limited parental supervision fosters a permissive environment where smoking is perceived as acceptable or even desirable. These dynamics are especially pronounced in low-income or high-risk neighbourhoods where social control is weak and access to tobacco products is relatively easy. Thus, the predictive power of these factors lies not only in their direct influence on behaviour but also in the cumulative risk they pose to adolescent development and decision-making.

Hypothesis 2: There is no significant combined effect of peer pressure, family dysfunction, and neighbourhood risk on smoking behaviour among adolescents in Ogun State, Nigeria.

Table 3: Multiple Regression Results for Hypothesis 2

Source	Sum of Squares	df	Mean Square	F	p-value	R ²
Regression	42.548	3	14.183	18.745	0.000	0.394
Residuals	65.328	115	0.569			
Total	107.876	118				

The results of the multiple regression analysis show a significant combined effect of peer pressure, family dysfunction, and neighbourhood risk on smoking behaviour ($F(3, 115) = 18.745$, $p = 0.000$). The model accounted for 39.4% of the variance in smoking behaviour ($R^2 = 0.394$), indicating that these psychosocial factors together explain a considerable proportion of the variability in adolescents' smoking behaviour.

This finding aligns with previous research that highlights the complex interplay of peer, familial, and environmental factors in influencing adolescent smoking (Loeber et al., 2019; Wills et al., 2020). Peer pressure and dysfunctional family environments are often seen as contributing to the adoption of smoking as a coping strategy, while high-risk neighbourhoods further exacerbate these behaviours (Widom, 2017; Zhang et al., 2019). The significant combined effect suggests that interventions targeting these multiple factors may be most effective in preventing smoking among adolescents. This outcome underscores the need to adopt a holistic approach when addressing adolescent smoking, recognising that no single factor operates in isolation. Rather, the overlapping influence of negative peer dynamics, familial instability, and unsafe neighbourhoods creates a cumulative burden that undermines resilience and encourages maladaptive behaviour. Adolescents exposed to such multifaceted adversity are less likely to encounter positive role models or receive adequate support for healthy decision-making. Moreover, environments characterised by social disorganisation tend to normalise deviant behaviours like smoking, thereby reinforcing their acceptability within peer groups. The interplay of these psychosocial variables demonstrates how structural and relational deficiencies can compound individual vulnerabilities. As a result, preventive efforts should be multifaceted addressing not only behavioural change in adolescents but also improving family communication patterns and fostering safer community conditions. This integrated strategy is more likely to disrupt the reinforcing cycles that perpetuate smoking behaviour among at-risk youths.

Hypothesis 3: There is no significant relative contribution of peer pressure, family dysfunction, and neighbourhood risk to smoking behaviour among adolescents in Ogun State, Nigeria.

Table 4: Relative Contribution of Predictors to Smoking Behaviour

Predictor Variable	β	t	p-value
Peer Pressure	0.311	4.306	0.000

Family Dysfunction	0.189	2.571	0.011
Neighbourhood Risk	0.241	3.356	0.001

The regression analysis indicates that peer pressure ($\beta = 0.311$, $p = 0.000$) is the most significant predictor of smoking behaviour among adolescents, followed by neighbourhood risk ($\beta = 0.241$, $p = 0.001$), and family dysfunction ($\beta = 0.189$, $p = 0.011$). This suggests that while all three factors significantly contribute to smoking behaviour, peer pressure has the strongest influence.

These findings are consistent with research indicating that peer influence is a primary driver of adolescent smoking (Kumar et al., 2021; Schaeffer et al., 2020). The role of neighbourhood risk factors further supports previous studies showing that environmental context, including exposure to drugs and smoking, is a key determinant of adolescent health behaviours (Zhu et al., 2020). Although family dysfunction plays a significant role, its impact is somewhat weaker compared to peer and environmental factors. These results reinforce the importance of targeting peer dynamics and environmental influences in smoking prevention programmes, while also addressing familial factors where appropriate. This pattern suggests that adolescents may be more responsive to immediate social and environmental cues than to underlying family conditions. Peer groups often serve as a primary source of identity and belonging, and in risky neighbourhoods, smoking may be seen as a socially acceptable behaviour. Interventions that fail to acknowledge this context may have limited success. While family-based interventions remain vital, their effectiveness could be enhanced when integrated with strategies that directly engage peer networks and reduce environmental triggers. These findings highlight the need for community-level reforms that reduce adolescents' exposure to smoking models. Prevention strategies must be comprehensive and adaptable, addressing the layered realities of adolescents' lives. By embedding programmes within schools, community centres, and informal youth settings, there is greater potential to mitigate peer and environmental pressures that outweigh familial influences in shaping smoking behaviour.

Conclusion

The study reveals that adolescent tobacco use is significantly influenced by a combination of psychosocial factors, including peer pressure, family dynamics, and neighbourhood risk factors. Adolescents exposed to deviant peer norms, family dysfunction, and socially disorganised environments are more likely to initiate and sustain smoking behaviours. These findings

underscore the need for a multifaceted approach to prevention and intervention, addressing both individual and contextual factors. The study highlights the importance of early intervention programmes that target peer relationships, family functioning, and community-level stressors to curb smoking among adolescents.

Implications of the Findings

The findings of this study have substantial implications for policy and practice, particularly in the development of targeted intervention strategies for adolescents. By recognising the critical role of peer influence, family dysfunction, and neighbourhood risks in smoking initiation, policymakers and practitioners can design more effective programmes. This can include school-based anti-smoking campaigns, family counselling, and community interventions that reduce exposure to negative environmental factors. Additionally, the study calls for the integration of psychosocial support systems within public health initiatives to address the root causes of adolescent smoking.

Limitations

While this study offers valuable insights into the psychosocial determinants of adolescent smoking, it has certain limitations. The cross-sectional nature of the research limits the ability to infer causality between the identified factors and smoking behaviours. Additionally, the study was conducted in specific location – Ogun state, which may limit the generalisability of the findings to other geographical areas with differing socio-cultural contexts. Furthermore, the reliance on self-reported data may have introduced biases, as adolescents might underreport smoking behaviours due to social desirability.

Recommendations

Based on the findings, it is recommended that preventive strategies targeting adolescent smoking should focus on strengthening familial bonds, reducing peer pressure, and improving neighbourhood conditions. Schools should implement comprehensive anti-smoking education programmes that incorporate skills for resisting peer influence and managing familial conflicts. Public health campaigns should also engage communities in creating supportive environments that discourage smoking initiation. These efforts should be culturally sensitive and adaptable to various demographic settings.

Suggestions for Further Studies

Future studies could explore longitudinal research designs to examine the causal relationships between peer influence, family dysfunction, neighbourhood risk factors, and smoking initiation over time. Additionally, investigating the role of digital media and social networks in shaping adolescent smoking behaviours would be a valuable extension. Research that includes a broader demographic range across different regions, including rural areas, could also provide a more comprehensive understanding of the factors influencing adolescent smoking on a national level.

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