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Psychosocial and Environmental Determinants of Psychoactive Substance Use Disorders Among Youth in Nigeria: A Systematic Review

The PENKUP Collaboration

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ABSTRACT

Background

Substance use among adolescents and young adults is a growing public health concern in Nigeria and other low- and middle-income countries. Despite increasing prevalence, there remains limited systematic evidence on the psychosocial and environmental predictors of substance use disorders in this population. Existing studies often focus on isolated substances or risk factors, overlooking the complex interplay of determinants across developmental stages.

Methods

This systematic review synthesized findings from 22 peer-reviewed studies published between 2015 and 2025 that examined substance use among adolescents and young adults in Nigeria. Databases searched included Web of Science, PubMed and African Journals Online. Studies were selected based on relevance to psychosocial, environmental, and developmental predictors of substance use. Data were extracted and analyzed thematically to identify recurring patterns and gaps.

Results

Findings revealed that adolescent substance use in Nigeria is shaped by emotional neglect, peer pressure, family dysfunction, socioeconomic hardship, and weak institutional support. Most studies (86.4%) used cross-sectional designs and focused on mixed substances (59.1%). Alcohol use ranged from 30.6% to 82.5%; tobacco from 5.5% to 35.3%. Early initiation, often before age 15, was common. Mental health outcomes appeared in 68.2% of studies, and several supported the self-medication hypothesis. Longitudinal and multi-level approaches were notably lacking.

Conclusion

The review highlights the urgent need for comprehensive, multi-factorial research on adolescent substance use in Nigeria. Future studies should adopt integrative models that account for developmental trajectories, psychosocial stressors, and environmental contexts. Strengthening regulatory frameworks and early intervention programs is essential to mitigate long-term health consequences and reduce the burden of substance use disorders in this vulnerable population.

Keywords: Adolescent substance use, risky behaviour, psychosocial predictors, peer influence, self-medication hypothesis, mental health, early initiation, public health intervention

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INTRODUCTION

Substance abuse represents a major global public health challenge and remains one of the leading causes of preventable and premature death worldwide (Martinez et al., 2020). The World Health Organization (WHO) estimates that more than seven million deaths annually are attributable to tobacco use, including approximately 1.6 million deaths from second-hand smoke exposure (WHO, 2025a). Without effective interventions, this mortality rate is projected to rise to over eight million by 2030 (WHO, 2025b). Notably, around 80% of the world's 1.3 billion tobacco users reside in low- and middle-income countries, such as Nigeria, underscoring the urgency of addressing tobacco-related substance use in these regions (WHO, 2025c). The health consequences of substance abuse are profound, contributing significantly to the burden of non-communicable diseases (NCDs) such as cardiovascular disease, liver cirrhosis, various forms of cancer, and mental health disorders, with adolescents and young adults being particularly vulnerable (Bennett et al., 2018; Martinez et al., 2020).

Nigeria, as the most populous nation in Africa, has a disproportionately large population of adolescents and young adults, making it a critical focus for substance abuse interventions. Recent studies highlight that 14.4% of Nigerians aged 15–64 abuse drugs, nearly three times the global average, with one in five users suffering from substance use disorders requiring urgent treatment (Akpan et al., 2024). Over the past decades, the global landscape of tobacco consumption has shifted: while cigarette use has declined in Western Europe, tobacco consumption in the Middle East and Africa has risen significantly, with some countries reporting smoking rates as high as 37% (Nduka et al., 2024). This trend reflects aggressive marketing by tobacco companies in emerging markets, where regulatory frameworks remain weak or underdeveloped (Akunna & Lucyann, 2023; Oweibia et al., 2025). Early initiation of substance use, particularly before age 15, is a strong predictor of lifelong dependence (Connor et al., 2021), with adolescents who start early being 6.5 times more likely to develop substance use disorders and facing heightened risks of morbidity and mortality (Brennan et al., 2024).

Adolescence represents a critical developmental period characterized by experimentation, susceptibility to peer pressure, rebellion, and identity formation, all of which contribute to vulnerability to substance use (Divsalar et al., 2021). Risk factors for substance use disorders are multifaceted, including individual, psychosocial, and environmental influences. External factors, such as aggressive behaviour, peer influence, and accessibility to drugs, interact with internal factors, including depression, anxiety, and familial history of substance abuse, to elevate risk (Johnson et al., 2020; Hammerton et al., 2020). Conversely, protective factors such as strong parental monitoring, academic competence, religiosity, high self-esteem, and positive peer relationships can mitigate the risk of substance abuse (Shafie, 2024; Asiyanbi et al., 2025).

Despite the growing prevalence of substance use among adolescents and young adults, particularly in developing countries like Nigeria, there remains limited systematic evidence on the interconnected psychosocial and environmental predictors of substance use disorders in this population. A 2020 systematic review by Jacobs et al. found that adolescent substance use in Nigeria is shaped by multi-level socio-ecological factors, including intrapersonal vulnerabilities, peer pressure, family dynamics, institutional gaps, and weak policy enforcement. However, most existing studies continue to focus on single substances (e.g., alcohol or tobacco), mental health outcomes, or isolated risk factors, without accounting for the interplay of multiple determinants across developmental stages. Another recent review by Ekpenyong et al. (2024) similarly highlights the fragmented nature of research in Nigeria, noting that few studies adopt longitudinal or integrative frameworks to

explore how early-life exposures, social environments, and psychological stressors converge to influence substance use trajectories. Understanding these predictors are crucial for designing effective, evidence-based interventions that prevent initiation, reduce prevalence, and mitigate long-term health consequences of substance use among Nigerian youth.

This systematic review was guided by the following research question: *What are the predictive factors of substance use disorders among adolescents and young adults in Nigeria?* This study aims to systematically review existing literature on substance use among Nigerian adolescents and young adults to identify the prevalence, distribution, and factors influencing substance abuse. Examining the interplay of psychosocial and environmental determinants, this review seeks to provide a comprehensive understanding of risk and protective factors, informing policy, public health strategies, and interventions targeted at curbing substance use disorders in Nigeria's youth population.

METHODS

Study Design

This study employed a systematic review methodology to synthesise evidence on the relationship between psychoactive substance use and mental health outcomes among adolescents and young adults in Nigeria. The review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework (Page et al., 2021), ensuring transparency, replicability, and methodological rigour in identifying, selecting, and synthesising relevant studies. Given the diversity of study designs and outcome measures, a narrative synthesis was adopted.

Eligibility Criteria

Studies were eligible for inclusion if they met the following criteria:

Population: Adolescents and young adults aged 10–24 years residing in Nigeria

Exposure: Use of psychoactive substances, including alcohol, tobacco, cannabis, tramadol, codeine, and other locally available or prescription drugs

Outcome: Mental health outcomes such as depression, psychological distress, suicidal ideation, behavioural disorders, or emotional instability

Study design: Empirical findings from observational (cross-sectional, case-control, longitudinal), experimental (RCTs, quasi-experimental), or qualitative designs

Publication date: Published between January 2015 and October 2025

Language: English

Accessibility: Full-text available through institutional or open-access databases

The chosen publication window reflects a strategic decision to capture the most recent and relevant evidence on youth substance use in Nigeria. This 10-year span aligns with national policy cycles (e.g., Nigeria's National Drug Control Master Plan 2015–2025) and global health priorities (e.g., WHO's Mental Health Action Plan 2013–2030), ensuring that the review is both timely and policy-relevant. Including studies up to October 2025 allows for the incorporation of emerging trends and newly published data, enhancing the review's completeness and practical utility.

Studies were excluded if they:

Focused solely on adult populations (25+), or did not report age-disaggregated data

Were literature reviews, meta-analyses, editorials, conference abstracts, or grey literature

Did not report substance use as an outcome or failed to isolate influencing factors

Were published before 2015.

No additional publication date limits were applied beyond the defined window. The original search was conducted on 15 January 2025, with additional sources identified through citation tracking and hand-searching between September and October 2025.

Search Strategy

A comprehensive search was conducted across multiple electronic databases, including PubMed, PsychInfo and African Journals Online (AJOL), chosen for their accessibility and coverage of peer-reviewed literature relevant to adolescent health and substance use. Supplementary searches were conducted using Google Scholar, relevant institutional repositories, and manual screening of reference lists from all included studies to ensure comprehensive coverage and identify additional eligible publications.

Search terms were developed using a combination of Medical Subject Headings (MeSH) and free-text keywords drawn from existing literature and clinical practice. A preliminary search helped refine terminology

and assess feasibility. Additional keywords were sourced using online thesauruses and encyclopaedias. The final search strategy included terms related to age group (e.g., adolescent, youth, young adult), substance types (e.g., alcohol, tobacco, cannabis, tramadol), and predictive factors (e.g., risk, protective, determinant). A detailed search matrix is provided in Table 1.

Table 1: Search Strategy

Search Concept	Keywords and MeSh Terms
Population	adolescent OR adolescents OR adolescence OR teenager OR teen OR teenagers OR teens OR youth OR youths OR school-going children OR youngster OR young person OR young people OR young adult OR young adults OR student OR students OR pediatric* OR minor
Exposure	abuse OR addiction OR dependence OR habituation OR overdose OR misuse OR overuse OR use
Substance	drug OR narcotic OR opioid OR psychoactive substance OR amphetamine OR cannabis OR ecstasy OR heroin OR cocaine OR hallucinogen* OR depressant OR stimulant OR marijuana OR illicit drug OR tranquilizers OR sedatives OR LSD OR fentanyl OR illegal drug OR street drug OR club drug OR recreational drug OR substances OR electronic nicotine delivery system OR cigarettes OR e-cigarette OR electronic cigarette OR e-cigar OR e-pipe OR e-hookah OR hookah pen OR vaping pen OR vape pipe
Predictive Factors	risk factor OR protective factor OR predictive factor OR determinant OR cause
Study Design	cross-sectional studies OR cross-sectional study OR cross-sectional research OR cross-sectional survey OR cross-sectional analysis OR cross-sectional design OR cross-sectional evaluation OR longitudinal studies OR longitudinal analysis OR longitudinal design OR longitudinal evaluation OR longitudinal research OR longitudinal study OR longitudinal survey OR follow-up studies OR follow-up analysis OR follow-up design OR follow-up evaluation OR follow-up research OR follow-up study OR follow-up survey OR prospective studies OR prospective analysis OR prospective design OR prospective evaluation OR prospective research OR prospective study OR prospective survey

Study Selection

All identified records were imported into a reference management system and screened in three stages:

Title screening for relevance

Abstract review against eligibility criteria

Full-text assessment for final inclusion

Two reviewers independently screened all records, with discrepancies resolved through discussion and consensus. Studies were excluded if they lacked relevant outcomes, did not report on the target age group, or failed to isolate predictive factors of substance use.

Data Extraction

A structured data extraction form was developed and piloted to capture key study characteristics, including:

Author(s), year of publication, and study location (including geopolitical zone and urban/rural setting)

Study design

Sample size and population characteristics

Substance(s) investigated and prevalence rates

Definitions of substance use status

Mental health outcomes measured

Key findings and reported risk/protective factors

Where studies reported subgroup analyses (e.g., by gender or region), each relevant association was included. Data extraction was conducted independently by two reviewers and cross-verified for accuracy. A descriptive table was developed to summarise study characteristics and facilitate thematic synthesis.

Quality Appraisal

The National Institutes of Health (NIH) Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies was employed to rate the methodological strength and risk of bias for the eligible studies (NIH, 2014). Each study was independently assessed across 14 criteria, including clarity of research objectives, definition of study population, sample size justification, reliability of exposure and outcome measures, and adjustment for confounding variables. Studies were not excluded based on quality scores but were discussed in terms of methodological strengths and limitations.

Data Synthesis

Due to substantial heterogeneity in study designs, populations, and outcome measures, a narrative synthesis was conducted. Findings were grouped thematically under the following domains:

Geographic distribution and study characteristics

Substance categories and patterns of use

Age of initiation

Mental health outcomes

Risk and protective factors

Qualitative tables were used to illustrate key associations and map findings across individual, interpersonal, community, and societal levels. Where applicable, prevalence rates and odds ratios were extracted and summarised. Patterns and divergences across regions, settings, and populations were highlighted to inform contextual understanding.

RESULTS

Selected Studies

Twenty-two studies were included in the final review (see PRISMA Flowchart in Figure 1), all published between 2015 and 2025. These studies were conducted across 15 Nigerian states and the Federal Capital Territory (FCT), with representation from all six geopolitical zones. Specifically, five studies were conducted in the South-West (Lagos, Oyo, Osun, Ogun, Ekiti), four in the South-South (Delta, Edo, Rivers, Bayelsa), three in the South-East (Imo, Ebonyi, Enugu), three in the North-Central (FCT, Kwara, Nasarawa), three in the North-West (Sokoto, Kano, Kebbi), and one in the North-East (Borno). Three studies were nationally representative, involving participants from multiple zones (e.g., Raji et al., 2017; Vigna-Taglianti et al., 2019; Offie et al., 2022b). The remaining studies were region-specific, with a slight predominance in southern Nigeria (59.1%).

Study Characteristics

The majority of studies employed cross-sectional designs (19 out of 22; 86.4%), with two longitudinal studies (Raji et al., 2017; Abasiubong et al., 2021) and one mixed-methods study (Egbe et al., 2016). Sample sizes ranged from 65 to over 2,000 participants, with populations including secondary school students, university undergraduates, out-of-school youth, and treatment-seeking individuals.

Settings varied:

Urban: 13 studies (59.1%)

Rural: 3 studies (13.6%)

Mixed urban-rural: 6 studies (27.3%)

Gender distribution was mixed in 90.9% of studies. Two studies (Pete & Eniojukan, 2015; Idowu et al., 2018) focused exclusively on male participants, while none of the included studies examined female populations in isolation. Data collection methods included structured questionnaires, validated screening tools (e.g., AUDIT, GHQ-28, MINI), and semi-structured interviews.

Data Extraction

The table of extracted data is shown in Appendix 1.

Quality Assessment

Quality appraisal using the NIH Quality Assessment Tool (Table 2) revealed that the majority of included studies satisfied key methodological benchmarks. Most studies clearly articulated their research objectives, defined study populations with precision, and applied consistent inclusion and exclusion criteria. These strengths contributed to the internal validity and comparability of findings across studies. However, several methodological limitations were observed. Notably, many studies failed to provide adequate justification for sample size, which may affect the statistical power and generalizability of results. Blinding of outcome assessors was rarely implemented, raising concerns about potential detection bias. Additionally, adjustment for confounding variables, such as socioeconomic status, parental substance use, and mental health history, was inconsistently applied, limiting the ability to isolate causal relationships. Despite these shortcomings, the overall quality of the studies was deemed sufficient to support thematic synthesis and draw meaningful conclusions regarding psychosocial and environmental predictors of adolescent substance use in Nigeria.

Table 2: Quality Appraisal by using NIH Quality Assessment Tool

S/N	Author(s)	Questions													
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1.	Ebrahim et al., 2024	Yes	Yes	Yes	Yes	Yes	NA	NA	NA	Yes	NA	Yes	NA	NA	Yes
2.	Abasiubong et al., 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3.	Abiola et al., 2016	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
4.	Aguocha & Nwefoh, 2021	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
5.	Ajayi & Somefun, 2020	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
6.	Ajayi et al., 2019	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	NA	NA	Yes
7.	Alex-Hart et al., 2015	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
8.	Arute et al., 2015	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
9.	Chima et al., 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
10.	Egbe et al., 2016	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes

11.	Erinoso et al., 2021	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
12.	Idowu et al., 2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
13.	Itanyi et al., 2018	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
14.	Malami et al., 2025	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
15.	Manyike et al., 2016	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
16.	Odukoya et al., 2016	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
17.	Offie et al., 2022a	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
18.	Offie et al., 2022b	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
19.	Oritsemuelebi, 2025	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
20.	Pete & Eniojukan, 2015	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
21.	Raji et al., 2017	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
22.	Shuaibu, 2023	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes
23.	Vigna-Taglianti et al., 2019	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	NA	NA	Yes

Question Keys

1. Was the research question or objective in this paper clearly stated?

2. Was the study population clearly specified and defined?

3. Was the participation rate of eligible persons at least 50%?

4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?

5. Was a sample size justification, power description, or variance and effect estimates provided?

6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?

7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?

8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?

9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?

10. Was the exposure(s) assessed more than once over time?

11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?

12. Were the outcome assessors blinded to the exposure status of participants?

13. Was loss to follow-up after baseline 20% or less?

14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?

Data Synthesis

Substance Focus

Substance categories varied across studies (Table 3):

Table 3: Substance Categories

Substance Category	Number of Studies	Examples
Mixed substances (alcohol, tobacco, cannabis, tramadol, codeine, caffeine)	13 (59.1%)	Offie et al., 2022a; Egbe et al., 2016
Tobacco only	5 (22.7%)	Arute et al., 2015; Abiola et al., 2016
Alcohol only	4 (18.2%)	Ajayi et al., 2019; Alex-Hart et al., 2015

Several studies reported the use of non-prescription medications, locally available stimulants, and emerging synthetic drugs, particularly among urban youth and university populations.

Prevalence and Patterns

Reported prevalence of substance use varied widely:

1. Alcohol: Lifetime use ranged from 30.6% (Alex-Hart et al., 2015) to 82.5% (Aguocha & Nwefoh, 2021)
2. Tobacco: Current use ranged from 5.5% (Aina et al., 2009) to 35.3% (Chima et al., 2021)
3. Cannabis and tramadol: Less frequently reported but rising in prevalence among university students and out-of-school youth (e.g., Egbe et al., 2016; Offie et al., 2022a)

Age of Initiation

Early initiation of psychoactive substance use emerged as a consistent theme across multiple studies in this review. The age at which adolescents and young adults first engaged with substances ranged widely, but several studies highlighted initiation during early adolescence, often before age 15, as a critical period of vulnerability.

1. Ajayi et al. (2019): Reported that many participants initiated alcohol use between ages 11 and 17, with peer influence and curiosity as key drivers.
2. Egbe et al. (2016): Found that some adolescents began using substances such as tobacco and cannabis as early as age 10, particularly in urban settings.

3. Alex-Hart et al. (2015): Documented initiation of alcohol use among secondary school students, with a modal age of 13–15 years.
4. Arute et al. (2015): Reported that tobacco use often began in early adolescence, with some students initiating use before age 12.
5. Shuaibu et al. (2024): Identified early initiation (10–12 years) as a significant risk factor among adolescents in peri-urban Abuja.
6. Offie et al. (2022a): Noted that initiation of multiple substances, including tramadol and cannabis, often occurred between ages 12 and 16.

Mental Health Outcomes

Mental health outcomes associated with substance use were reported in 15 studies (68.2%). These included:

1. Depression and psychological distress: Ajayi et al., 2019; Abasiubong et al., 2021
2. Suicidal ideation and attempts: Raji et al., 2017; Chima et al., 2021
3. Behavioural disorders and emotional instability: Egbe et al., 2016; Itanyi et al., 2018
4. Academic impairment and social withdrawal: Pete & Eniojukan, 2015; Offie et al., 2022a

One study (Abasiubong et al., 2021) reported a 23.8% prevalence of major depressive disorder among students with alcohol dependence. Another (Raji et al., 2017) found significant associations between recreational drug use and suicidal behaviour.

Risk and Protective Factors

Across the reviewed studies, a complex interplay of sociodemographic, familial, and psychosocial factors emerged as influential in shaping adolescents' and young adults' engagement with psychoactive substances. Gender was consistently identified as a significant risk factor, with males more likely to use substances across all categories (Alex-Hart et al., 2015; Aguocha & Nwefoh, 2021). Age also played a predictive role, particularly in relation to tobacco and alcohol use. Older adolescents were more likely to report substance use, and in Sokoto metropolis, out-of-school youth aged 17–19 years were found to be 17 times more likely to have ever smoked compared to their younger peers (Raji et al., 2017).

Parental characteristics featured prominently across studies. Adolescents whose parents used psychoactive substances were significantly more likely to engage in similar behaviours themselves (Arute et al., 2015; Alex-Hart et al., 2015; Odukoya et al., 2016; Manyike et al., 2016; Abiola et al., 2016). The influence was particularly stark in Raji et al. (2017), where respondents whose fathers smoked were 2.79 times more likely to have ever smoked, and those whose mothers smoked were 18.4 times more likely. Poor parental education was also associated with increased risk (Manyike et al., 2016), suggesting that broader socioeconomic disadvantage may compound vulnerability.

Peer influence was the most frequently cited reason for initiation, with adolescents who had friends using substances significantly more likely to do the same (Chima et al., 2021). Urban residence was linked to increased access and exposure, while lack of awareness or formal education about substance risks contributed to normalisation of use. Media exposure, particularly advertisements for tobacco, was also implicated (Raji et al., 2017; Offie et al., 2022a), alongside contextual factors such as buying cigarettes for adults, attending private schools, going out in the evening for leisure, and living in rural areas (Itanyi et al., 2018).

Despite these risks, several protective factors were identified. Strong family support was associated with reduced likelihood of use (Ajayi & Somefun, 2020), and frequent participation in religious activities appeared to buffer against substance engagement (Manyike et al., 2016; Shuaibu et al., 2024). Academic performance also played a protective role (Alex-Hart et al., 2015), and targeted health education, particularly school-based interventions, showed promise in shifting attitudes and reducing uptake (Abiola et al., 2016; Offie et al., 2022b). Adolescents who received formal lectures on the dangers of smoking were less likely to initiate use (Idowu et al., 2018), highlighting the value of structured prevention efforts.

When asked about their motivations, students offered a range of reasons for using psychoactive substances. These included the desire to make friends (Raji et al., 2017), enhance intelligence or physical activity (Idowu et al., 2018), have fun or feel good (Alex-Hart et al., 2015; Idowu et al., 2018), relieve stress or forget worries (Alex-Hart et al., 2015; Offie et al., 2022a), stay awake to study, relax or sleep (Alex-Hart et al., 2015; Chima et al., 2021), and experiment out of curiosity (Pete & Eniojukan, 2015; Alex-Hart et al., 2015; Offie et al., 2022a). Family influence and media exposure were also cited, and some respondents described feeling "hooked"

or unable to stop (Arute et al., 2015; Alex-Hart et al., 2015).

DISCUSSION

In response to Nigeria's shifting demographic profile, marked by a rising population of adolescents and young adults (Abbani, 2021; Adesola et al., 2024), this systematic review critically examined the predictive factors associated with psychoactive substance use among individuals aged 10 to 24. Drawing on 22 peer-reviewed studies published between 2015 and 2025, the review offers a contemporary synthesis of evidence relevant to youth health and behavioural risk in a rapidly changing national context. The findings reveal a complex interplay of individual, familial, social, and structural influences, with consistent patterns emerging across regions, settings, and study designs. These results are interpreted in relation to existing literature, national priorities, and global health frameworks to provide deeper insight into the drivers and implications of youth substance use in Nigeria.

Sociodemographic and Environmental Influences

Gender emerged as a consistent predictor of substance use, with males significantly more likely to engage in substance use than females. This reflects entrenched cultural norms that associate smoking and drinking with masculinity and social status (Mensah, 2021), while discouraging such behaviours among women. However, women are not immune: exposure to second-hand smoke and spousal smoking significantly increase their likelihood of smoking (Young et al., 2025).

Age was another key factor, with older adolescents, particularly those aged 17–19, reporting higher prevalence rates. Out-of-school youth were especially vulnerable, often lacking access to formal health education and antismoking campaigns (Egbe et al., 2016; Odukoya et al., 2016). These young people, frequently living in polygamous households or experiencing parental absence, loneliness, and depressive symptoms, are particularly at risk of using substances as a coping mechanism (Ojo, Agboola & Kukoyi, 2022).

Urban residence was associated with increased exposure and access to substances, but the review found no consistent differences in tobacco use between rural and urban populations. This aligns with findings from other Sub-Saharan African contexts (Aboagye et al., 2025), suggesting that tobacco control policies must be strengthened across all regions, regardless of geography or socioeconomic status.

Familial and Peer Dynamics

Parental substance use was a strong and recurrent predictor across studies. Adolescents whose parents, especially fathers and mothers, used tobacco or alcohol were significantly more likely to initiate use themselves (Arute et al., 2015; Alex-Hart et al., 2015; Raji et al., 2017). Poor parental education and low socioeconomic status further compounded risk, suggesting that structural disadvantage plays a critical role in shaping adolescent health behaviours.

Peer influence was the most frequently cited reason for initiation (Pete & Eniojukan, 2015; Office et al., 2022a, 2022b), consistent with findings from South Africa and other global contexts (Davids, Roman & Rich, 2022). Adolescents often described substance use as a means of social integration, stress relief, or experimentation. Family conditions, such as polygamy, parental absence, and divorce, further exacerbated vulnerability (Abiola et al., 2016).

In Australia, while direct pressure from older relatives was rare, the presence of tobacco in the home and modelling by similarly aged family members influenced youth smoking behaviours (Liau, 2022). These findings reinforce the need for family-based interventions and peer-led education programmes that address both relational and environmental influences.

Age of Initiation and Motivations

Several studies reported initiation as early as age 10, with most adolescents starting between 11 and 17 years. This early onset is concerning, given the heightened neurodevelopmental vulnerability during adolescence and the long-term consequences of early substance exposure. Motivations ranged from curiosity and peer pressure to academic stress, emotional distress, and media influence. Some adolescents described using substances to stay awake for study, enhance physical performance, or cope with sadness, indicating a functional dimension to use that warrants deeper exploration.

Media exposure and increasing age were additional risk factors, with studies linking tobacco use to pro-smoking advertisements and portrayals of smoking in television and film (Addo et al., 2024). Adolescents often viewed actors and celebrities as role models, and their smoking behaviours subtly reinforced the perception of smoking as socially desirable.

These findings highlight the urgent need for media regulation, counter-advertising campaigns, and age-

appropriate prevention strategies embedded within school curricula, youth clubs, and digital platforms. Interventions should not only convey risks but also offer alternatives for coping, connection, and self-expression.

Mental Health Outcomes

Mental health outcomes associated with substance use included depression, psychological distress, suicidal ideation, and behavioural disorders. These were particularly pronounced among adolescents using multiple substances or reporting frequent use. The bidirectional relationship between substance use and mental health, where one exacerbates the other, was evident across studies. For example, alcohol dependence was linked to major depressive disorder, while recreational drug use correlated with emotional instability and academic impairment.

Psychosocial factors such as stress, loneliness, and depressive symptoms were also prominent (Chima et al., 2021), echoing findings from other African countries (Boua et al., 2021). Adolescents facing emotional or physical neglect often resorted to substance use as a form of self-medication (*Odukoya et al., 2016; Ajayi et al., 2019*). The review also found that those who used alcohol or marijuana were more likely to smoke tobacco, suggesting a clustering of risk behaviours that calls for multi-component interventions (Morojele et al., 2021).

These findings align with global evidence on the co-morbidity of substance use and mental health disorders, and underscore the need for integrated services. Mental health screening, counselling, and referral pathways should be embedded within youth-focused substance use programmes, particularly in schools and community clinics.

Protective Factors and Opportunities for Intervention

Despite the risks, several protective factors were identified. Strong family support, religious engagement, and targeted health education were associated with reduced substance use (Abiola et al., 2016; Shuaibu et al., 2024; Ajayi & Somefun, 2020). School-based interventions, particularly those involving structured lectures and peer-led discussions, showed promise in shifting attitudes and behaviours. Adolescents who received formal education on the dangers of smoking were less likely to initiate use (Idowu et al., 2018), underscoring the value of evidence-informed curricula.

Religious participation also emerged as a buffer, offering moral guidance, community belonging, and structured routines. These insights point to the potential of faith-based organisations, educators, and youth mentors as strategic partners in prevention. Adequate social support and efforts to reintegrate out-of-school youth with their families may also reduce vulnerability and promote healthier coping strategies (Menyaga & Inongha, 2025).

Study Limitations

While this systematic review offers a comprehensive synthesis of current evidence, several limitations should be acknowledged. First, the methodological and statistical heterogeneity across the included studies, ranging from differences in sampling techniques and outcome measures to variations in geographic scope and population characteristics, precluded a formal analysis of tobacco use trends among adolescents and young adults. As a result, no meta-analysis was conducted, and quantitative synthesis was not feasible. This limits the ability to draw generalisable conclusions or assess pooled prevalence estimates across regions and subgroups.

Second, although the review employed a rigorous search strategy across five major databases and supplemented this with manual screening and citation tracking, it is possible that relevant studies were inadvertently missed. Factors such as inconsistent indexing, limited visibility of regionally published work, and language restrictions may have contributed to this. Nonetheless, the review represents a valuable contribution to the existing body of literature and provides a timely foundation for policy formulation, programme design, and future monitoring of tobacco control efforts in Nigeria.

Third, the absence of national-level data integration, such as the inclusion of government surveillance reports or unpublished programme evaluations, means that the review may not fully capture the impact of existing tobacco control measures. Future research should aim to incorporate these sources and assess the effectiveness of interventions such as school-based education, media regulation, and legislative enforcement on youth tobacco prevalence.

Finally, this review highlights broader structural challenges facing African researchers, including limited funding, publication barriers, and uneven research infrastructure. These constraints contribute to the persistent underrepresentation of African-led health research in global discourse (Nabyonga-Orem, Asamani & Olu, 2024), and underscore the need for sustained investment in capacity building, equitable collaboration, and knowledge dissemination across the continent.

Implications for Policy and Practice

The findings of this review have several implications for policy, practice, and research. First, they support the integration of substance use prevention into Nigeria's broader adolescent health agenda, as outlined in the National Drug Control Master Plan (2021–2025) and the National Mental Health Policy. Second, they highlight the need for multi-sectoral collaboration, across education, health, social welfare, and civil society, to address the root causes of substance use and promote protective environments.

Third, the review underscores the importance of inclusive programming that reaches both in-school and out-of-school youth, recognising the unique vulnerabilities of street children and marginalised populations. Tobacco control initiatives must be strengthened across all Nigerian societies, regardless of geography or existing health or socioeconomic inequalities.

Finally, the review calls for youth participation in programme design. Adolescents are not a homogenous group; their experiences vary by age, gender, location, and socioeconomic status. Interventions must reflect this diversity and be co-created with young people themselves. Further research is needed to explore emerging substances, digital influences, and the lived experiences of adolescents navigating substance use and mental health challenges. Longitudinal studies, qualitative inquiries, and participatory approaches will be critical in deepening understanding and shaping responsive, sustainable interventions.

CONCLUSION

This systematic review highlights the high prevalence of psychoactive substance use among Nigerian adolescents, with early initiation and widespread use of alcohol and tobacco posing serious public health risks. Substance use is driven by a complex network of factors including gender, peer pressure, family dynamics, psychological distress, and weak policy enforcement. Regional and contextual differences emerged, with urban and peri-urban youth particularly vulnerable. Mental health challenges such as stress, anxiety, and depression were strongly correlated with substance use, while protective factors included parental monitoring, academic engagement, and religious involvement.

Out-of-school adolescents face compounded risks due to socioeconomic deprivation, limited access to health education, and exposure to high-risk peer networks. Alcohol consumption is especially concerning due to aggressive marketing, celebrity endorsements, and weak regulatory frameworks that normalize its use among youth. Although tobacco use appears less prevalent, its addictive potential and second-hand smoke exposure continue to pose long-term health threats. Emerging substances like tramadol, codeine, and shisha are increasingly popular among urban youth, warranting closer attention.

Addressing this growing challenge requires a multi-level, evidence-based approach that integrates school-based prevention, family engagement, and community-driven interventions. Effective strategies should prioritize peer-led education, mental health promotion, and the development of healthy coping mechanisms. Strengthening youth health literacy and enforcing stricter controls on the advertising and sale of psychoactive substances are essential policy priorities. Future research should adopt longitudinal, theory-driven designs and expand into underrepresented regions to build nationally representative evidence base and inform targeted interventions.

AUTHOR CONTRIBUTION

All authors played a substantive role in shaping this study and developing the manuscript. K.O.O. conceptualised the work and designed the overall study framework. Data analysis, interpretation of data and validation of findings were carried out collaboratively, with each author contributing to the discussions that informed the final results. G.M.Y., C.C.A. and K.O.O. prepared the initial manuscript draft, covering the introduction, methods, results and discussion. Co-authors strengthened the analysis, offered detailed revisions and enhanced the clarity and coherence of the final document. Every author reviewed the complete manuscript, approved the final version and accepted responsibility for the integrity of the work.

CONFLICT OF INTEREST

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APPENDICES

Appendix 1: Table of Extracted Data

S/N	Author(s)	Research Objective	*Location (State)*	Geopolitical Zone	Setting	Data Collection Methods	Results	Additional Comments
1.	Ebrahim et al., 2024	Reviewed psychosocial factors linked to adolescent substance use across sub-Saharan Africa.	Sub-Saharan Africa	Multiple	Various	Systematic review of published studies	Identified factors such as poverty, unemployment, peer pressure, and family dynamics as contributing to substance use among adolescents.	Provides broader regional context; useful for understanding cross-country trends
2.	Abiola et al., 2016	To determine the age of initiation, determinant, and prevalence of cigarette smoking among teenagers in Mushin Local Government Area of Lagos state, Nigeria.	Lagos	South-West	Rural	The authors conducted a descriptive cross-sectional study among 475 teenagers selected by multistage sampling. A pre-tested, structured, interviewer-administered questionnaire was used for data collection.	Range and mean age of initiation of cigarette smoking were 7 to 17 years and 12.0±3.32 years respectively. Teenagers who were above 15 years, males, married, had ≤primary school education, influenced by friends, and influenced by advertisements were more likely to have initiated cigarette smoking.	Determinants of cigarette smoking were age, gender, marital status, educational background, friends, and advertisements. Lifetime prevalence of cigarette smoking was higher than prevalence of current cigarette smokers. Cigarette smoking reduction programs should take these factors into consideration.
3.	Aguocha & Nwefoh, 2021	To assess the prevalence and socio-demographic correlates of psychoactive substance use among undergraduate students in a Nigerian university.	Imo	South-East	Urban	This was a cross-sectional descriptive study of 763 undergraduate students at Imo State University, Owerri, Nigeria, recruited using multi-stage sampling technique. Data on the socio-demographic characteristics and pattern	The lifetime rate of psychoactive substance use was 84.5%. Alcohol had the highest rate of lifetime (82.5%) and 12-month (61.1%) use. There was a similar rate of lifetime use of psychoactive substances among males (86.1%) and females (83.4%).	There is a high rate of psychoactive substance use among the students. Age, religion, place of residence, family and peer use of substances are important determinants of psychoactive substance use.

						of psychoactive substance use were collected using a structured questionnaire.	Age ($p<0.05$) and place of residence ($p<0.05$) were significantly associated with lifetime psychoactive substance use.	
4.	Ajayi et al., 2019	i. To determine the prevalence, correlates, and frequency of alcohol use among young adults in two Nigerian universities. ii. To explore the role of family structure, family support and religion/religiosity on alcohol use.	Kwara and Nasarawa	North-Central	Urban	This was a cross-sectional study conducted in two selected universities in the North Central region of Nigeria. The study was conducted among a final sample of 784 students selected using stratified random sampling.	The level of ever and current use of alcohol was 43.5 and 31.1%, respectively. The mean frequency of alcohol use among the study participants was three days, but ten days among current alcohol users. In the adjusted model, male sex, age above 19 years, infrequent attendance of religious rituals, and belonging to rich/middle-class family were significantly associated with a higher likelihood of ever use and current use of alcohol, while living in the same household as one's father was associated with lower odds of current and ever use of alcohol.	There is a need to implement measures in controlling alcohol manufacturing and marketing as well as policies regulating alcohol outlets establishment around educational institutions as well as the working hours in such outlets.
5.	Ajayi & Somefun, 2020	To examine the influence of factors at the individual and family level on recreational drug use	Kwara and Nasarawa	North-Central	Urban	This cross-sectional study was conducted between February and March 2018 among a final sample of 784 male and female university students selected using	24.5% of students had ever used drugs for recreational purposes, and 17.5% are current users. The median drug use frequency over the past month was six days among	The family should be considered as an important unit to sensitize young people on the harmful effects of drug use. It is also vital that religious leaders speak

		among adolescents and young adults.				stratified random sampling. Binary logistic regression was used to identify significant predictors of ever use and current use of drugs.	current users (n = 137). In the multivariable analyses, living in the same household as one's mother, adequate family support and frequent attendance of religious fellowships were significantly associated with a lower likelihood of recreational drug use. However, male sex was associated with higher odds of recreational drug use.	against drug use in their various fellowships. There is a need to address recreational drug use on Nigerian campuses by educating students about its adverse impacts.
6.	Alex-Hart et al., 2015	To determine the prevalence and factors associated with alcohol use among secondary school students in Port Harcourt, Rivers State, Nigeria.	Rivers	South-South	Urban	This was a cross sectional school-based study conducted in Port Harcourt in March 2014. A 20 itemed structured, self - administered questionnaire was distributed to 1080 senior secondary 1 to 3 students from 10 public secondary schools selected through Multistage Sampling technique. Questions asked covered drinking of alcohol, frequency of drinking and being drunk in the past 30 days before the surv[ey. Other behaviours sought	Prevalence of current drinking of alcohol was 30.6% and 38.1% of current drinkers were also drunk in the past 30 days, with 17.2 % being very frequently drunk. Gender showed a positive association with drinking of alcohol, as more males drank alcohol with in the past 30 days compared to the females. Smoking of cigarette in the past 30 days and truancy were positively associated with being drunk, while academic grades showed an inverse relationship with consumption of alcohol. Majority of those who drank	Alcoholism is a serious problem with secondary school students in Port Harcourt. It is linked with truancy, poor academic achievement, and other substance use. The most serious health and social problem experienced by the drinkers is addiction.

						were smoking of cigarette, use of cocaine and going out in the evening for fun.	alcohol (42.6%) were experimenting with alcohol, though 5.4% drank due to addiction.	
7.	Arute et al., 2015	To determine the prevalence and patterns of tobacco use among Senior Secondary School Students in Abraka, Delta State, Nigeria.	Delta	South-South	Urban	Four randomly selected schools and 456 students were surveyed in a cross-sectional study with a structured questionnaire that addressed the objectives of the study.	Smoking prevalence rate was 7% with more male students being involved. Initiation age was 12-15 years (66%); 50% were current smokers; 64% smoked at weekends.	Although smoking prevalence seems low, school-based preventive awareness programs are strongly recommended to reverse the trend.
8.	Chima et al., 2021	To determine the prevalence, knowledge of health effect and attitude towards smoking among students of Alex Ekwueme Federal University Ndufu Alike, Ebonyi State.	Ebonyi	South-East	Urban	This was a cross-sectional descriptive study conducted at Alex Ekwueme Federal University Ndufu-Alike Ebonyi State between May and August 2020. Structured questionnaires were distributed electronically to the participants.	The overall prevalence of smoking was 35.25%. Majority (70%) of the participants between the age group of 30 and 34 years were smokers. Among male students, the prevalence of tobacco smoking was 43% and it was 18% in female subjects. The two major factors that led to smoking among the students were curiosity (16.75%) and friends (16%).	The findings may be useful in policy making and help contribute to knowledge on substance use among university students.
9.	Chinawa et al., 2021	To determine the causative factors of adolescent amongst adolescents attending	Enugu and Ebonyi	South-East	Urban	Behavioural problems were investigated using a random sampling of adolescents from secondary schools in	Adolescents who reported to have used tobacco 3 to 5 and 6 to 9 times during the last 30 days were 3.14% and 3.4%,	Adolescents exhibit several forms of behavioural problems. A longitudinal study is necessary to

		secondary school in Southeast Nigeria.				southeast Nigeria from February to April 2014. A self-administered questionnaire was developed from Health Kids Colorado Questionnaire.	respectively. Adolescents who attempted suicide are from 15 years and peaked at 18. Eighty-three (11%) adolescents who are 15 years old attempted suicide in a year; this peaks at 17 years where 235 (30.8%) committed suicide. Majority of adolescents with behavioural disorder are from the upper-class family.	determine the changing pattern of this disorder.
10.	Egbe et al., 2016	To investigate the knowledge of youth aged 18 to 24 years about the negative health effects of cigarette smoking.	Unspecified States in Southern Nigeria	South	Urban and rural	Mixed methods study that included a quantitative phase where a multi-staged non-probability sampling technique was used. Youth aged 18 to 24 years irrespective of their smoking status and gender formed the population for this phase.	Most young smokers recounted some health hazards associated with smoking but expressed a sense of invincibility to the hazards of smoking. Some resorted to reducing their daily consumption of cigarettes or taking cancer protective foods to avoid the health consequences of their smoking habit. Just over half of survey participants ($\mathbf{56.1\%}$, $\boldsymbol{n} = \mathbf{305}$) had a high knowledge level of the negative health effects of cigarette smoking. This was significantly higher among non-smokers, females, students, and respondents who had never smoked.	There is need to raise more awareness in the population on the dangers of smoking.

11.	Erinoso et al., 2021	To assess the prevalence and factors associated with electronic cigarette use, as well as the relationship between their use and anxiety among adolescents and young adults in Lagos, Nigeria.	Lagos	South-West	Urban and rural	An online cross-sectional study among participants aged between 15–35 years. The survey had three sections: sociodemographic information, the pattern of e-cigarette use, and a 7- item Generalized Anxiety Disorder (GAD-7) scale. Bivariate and multivariable logistic regression analysis was used to identify factors associated with e-cigarette use.	The prevalence of e-cigarette ever use was 7.9%. Older age and being male were independently associated with higher odds of e-cigarette use. After adjusting for age and sex, alcohol use.	The study suggests a higher likelihood of e-cigarette use among alcohol consumers, poly-tobacco or substance users and individuals with friends who use e-cigarettes. Health providers and policy makers in Nigeria might consider preventive measures aimed at young adults with the identified risk factors, as well as close monitoring of trends in e-cigarette use in the coming years.
12.	Idowu et al., 2018	To assess the prevalence and factors associated with substance abuse in selected public schools in Ogbomoso, South-West Nigeria.	Oyo	South-West	Urban	Cross-sectional study design and multi-stage sampling method were utilized among 249 study participants who gave informed consent/assent. Data were collected using facilitated, self-administered questionnaire. Descriptive and inferential statistics using the Chi-Square test were carried out at $p<0.05$.	Tramadol was the most abused substance apart from alcohol; reported by 39.0% of the substance abusers. Most (35.5%) of the substance abusers did so believing it could enhance their academic performance. The proportion of respondents who were substance abusers was significantly higher among students who had not received any formal lectures on the subject at school compared to those who had.	The findings of this study underscore an urgent need to intensify awareness against substance abuse among secondary school students in Nigeria.

13.	Malami et al., 2025	Investigated determinants of substance abuse among youth aged 15–24 years	Sokoto (Kanwuri Area)	North West	Urban	Survey questionnaires	Identified significant associations between substance abuse and factors such as age, sex, occupation, stress, anxiety, depression, family structure, parental involvement, peer pressure, and social influence.	Highlights mental health factors alongside social determinants
14.	Itanyi et al., 2018	To determine the factors associated with tobacco smoking among Nigerian school adolescents and investigate the interaction between school location and socioeconomic status (SES).				Using a cross-sectional study design, 4332 eighth to tenth grade students in rural and urban secondary schools in Enugu State, Nigeria, were selected by stratified two-stage cluster sampling. Data were collected using a modified Global Youth Tobacco Survey (GYTS) Core Questionnaire. Outcome measures were current smoking of cigarettes and other smoked tobacco. Multilevel mixed effects logistic regression models were used to determine factors associated with current tobacco smoking and were considered statistically significant at $p<0.05$.	Prevalence of current smoking of cigarettes and other smoked tobacco were 13.3% and 5.8%, respectively. Possession of higher weekly allowance, exposure to second-hand smoke or tobacco advertisements, having smoking parents, friends or classmates who smoke, and sale of cigarettes near school, were positively associated with current smoking of tobacco.	Environmental factors are associated with adolescent tobacco smoking. Tobacco control programs should use targeted strategies that vary depending on the local context.

15.	Manyike et al., 2016	To determine the prevalence and pattern of psychoactive substance use among adolescents; the substances involved and the extent of the problem in this locale.	Enugu	South-East	Urban	This is a cross-sectional study that assesses the pattern of psychoactive substance use among secondary school adolescents in Enugu, South-East, Nigeria. The study was carried out among adolescents attending six secondary boarding schools in Enugu metropolis of Enugu State of Nigeria. The WHO Student Drug Use Questionnaire was adapted for this study.	prevalence of current use for psychoactive substances ranged from 0.4 to 34.9 % while that for life use ranges from 0.8 to 63.5 %. The least being cannabis and the most being kola nuts. Kola nut is the most widely used psychoactive substance both for current use, past year use and the respondents' lifetime use.	The study revealed that the prevalence of current use for psychoactive substances ranges from 0.4 to 34.9 % while that for life use ranges from 0.8 to 63.5 %. The least being cannabis and the most being kola nuts.
16.	Odukoya et al., 2016	To study the risk perception and correlates of tobacco Use among young people outside of formal school settings in Lagos State, Nigeria.	Lagos	South-West	Urban and rural	A descriptive cross-sectional study was carried out among 326 young people aged 15-24 years in four randomly selected motor parks in Lagos state. Interviewer-administered questionnaires were used to collect data.	The majority were aware that active (78.2%), and passive smoking (77.3%) are harmful to health. One hundred and fifty (46.0%) respondents had experimented with smoking of which 106 (32.5%) had progressed to become current smokers. Half of the current smokers, 54 (50.9%), felt the need for a cigarette first thing in the morning.	Youth tobacco prevention programs should go beyond the mere provision of knowledge and focus on other social and environmental factors that may promote tobacco use among youth.
17.	Offie et al., 2022a	To assess the determinants of	Ekiti	South-West	Urban and rural	A descriptive cross-sectional study with an	The prevalence of lifetime and current use of at least one	Substance use is influenced by multiple drivers that range

		psychoactive substance use among young people in Ado Ekiti, Southwest, Nigeria.				analytic component was conducted among 415 eligible young people (both boys and girls) aged 10-24 years in Ado Ekiti, Southwest, Nigeria from August 2021 to January 2022. An adapted and pretested structured questionnaire on the determinants of substance use was administered to obtain all the required variables from the study participants. A multistage cluster sampling method was used for the selection of the participants from the four randomly selected geographical areas.	psychoactive substance among the respondents was 75.9% and 69.9% respectively. Results from multiple regression analysis implicated participants' age, low perceived risk of harm, and family residence status as the predictors/determinants of substance use among the participants.	from individual, social and environmental factors with socialization activities at the centre of the factors. Multifaceted intervention strategies that will stem down the rate of substance use among the younger population is paramount, particularly within the health education arena.
18.	Offie et al., 2022b	To assess the patterns of substance use among young people in Ado Ekiti, Southwest, Nigeria.	Ekiti	South-West	Urban and rural	This was a cross-sectional descriptive study carried out among 415 enrolled young people aged 10-24 years in Ado Ekiti, Southwest, Nigeria between August 2021, and January 2022. Enrolled study participants from the four selected geographical areas were	The prevalence of current use of at least one psychoactive substance among the respondents was 69.9%. The most current used substance by the respondents was alcoholic beverages (42.4%) followed by cigarettes (28.3%), cannabis (7.2%), and tramadol (6.6%). The study also revealed that the	Intervention strategies that will reduce the rate of substance use among the younger population to the barest minimum are paramount, particularly within the health education arena.

						randomly chosen using a multistage cluster sampling method.	lifetime rate of alcohol use decreased with age, while cigarette smoking increased with age. This study had shown that alcoholic beverages, cigarettes, and cannabis are the most abused substances by the participants in this location.	
19.	Oritsemuel ebi, 2025	Examined the prevalence and determinants of recreational drug use.	Nigeria (national)	Multiple	Mixed	Cross-sectional surveys	Discussed how chronic alcohol use exacerbates psychosocial stress, leading to increased substance use; identified psychosocial and environmental factors	Explored neurobiological aspects of substance use in addition to psychosocial predictors
20.	Pete & Eniojukan, 2015	To evaluate the smoking habits and associated contextual correlates among pharmacy students in a tertiary institution in Bayelsa State, Nigeria.	Bayelsa	South-South	Urban	Descriptive cross-sectional research was conducted involving 210 students and utilizing pre-tested and validated questionnaires. Data was analysed with SPSS.	Majority of respondents (66.4%) were aged 21-25 years; the male-female ratio was 1:0.9 and 99.3% were Christians. Smoking prevalence was 12.9% and more prevalent among males; age of smoking debut was 16-20 years; (46.1%); majority (83.3%) smoked 1-5 sticks of cigarette per day;	More effective campaign strategies should be adopted to reach as many young people as possible. The pharmacy curriculum should contain adequate courses on smoking effects and cessation; programmes of student bodies should incorporate tobacco cessation activities. The existing tobacco smoking restrictions and policies should be strengthened and enforced.

21.	Raji et al., 2017	To investigate the pattern of cigarette smoking among out-of-school adolescents in Sokoto metropolis, North-West Nigeria.	Sokoto	North-West	Urban	The study site consisted of the commercial motor-parks, central and other market sites as well as busy roads in Sokoto metropolis where out of school adolescents frequent. A total of 213 study participants were recruited using a 2-staged sampling technique and subsequently interviewed using an interviewer-administered structured questionnaire.	Most of the respondents had good knowledge of health hazard of cigarette smoking, 11.3% of respondents had ever smoked cigarette and 3.3% were current cigarette smoker. There was an association between respondents ever smoking with respondents' status, age group, fathers smoking, mother smoking. Main determinant of respondent ever smoking was their perception that smokers should be allowed to smoke in public.	Eleven percent of respondents had ever smoked cigarette, 3.3% were currently smoking cigarette. Most of the adolescents had good knowledge of health hazards of smoking. Main determinant of respondents ever smoking was that people should be allowed to smoke in public. Sustained campaigns out-of-school adolescents may go a long way in reducing use among this group of adolescents.
22.	Shuaibu, 2023	Determined the prevalence and identified risk and protective factors of adolescent substance use.	Abuja (peri-urban communities)	Federal Capital Territory	Peri-urban	Structured interviews and questionnaires	Highlighted gender, age, peer influence, parental monitoring, and neighbourhood environment as significant factors influencing substance use among adolescents.	Focused on adolescents in peri-urban settings
23.	Vigna-Taglianti et al., 2019	To describe the knowledge, attitudes, beliefs, risk perception, skills and substance use among Nigerian secondary school students highlighting	Multi-states	All 6 geopolitical zones	Urban and rural	The population size of each zone was considered in extracting the 32 schools for the survey. The characteristics of the social environment, tobacco, alcohol and substance use, knowledge, beliefs, risk	5.1% reported they had smoked cigarettes at least once in their life, 33.6% drank alcohol, 13.1% experienced drunkenness, 7.5% used cannabis and 11.6% other drugs. The highest rates of alcohol use were observed in	This study shows a high prevalence of adolescent alcohol and substance use in Nigeria. There is a need for planning and implementing evidence-based drug education and prevention programs across the country.

		the differences by geopolitical zone.				perception, attitudes, personal skills, and school climate were investigated through an anonymous questionnaire.	the South, whilst the use of tobacco, cannabis and other drugs was higher in the North. Knowledge about tobacco, alcohol and marijuana was quite low across all zones. Scores for self-esteem, decision-making and refusal skills, risk perception and beliefs were lower in the North.	Prevention activities targeting adolescents could help to reduce the later life burden of disease related to use of tobacco, alcohol, and other drugs.