

A Systematic Review on the Intersections of Drug Addiction, Mental Health, and Consumer Patterns in Higher Education Contexts

¹Honest Chidiebere Anorue, ²Uzoamaka Chioma Ogor & ³Blessing Nnenna Iheagwam

^{1&3} Department of Business Education, University of Nigeria, Nsukka

²Department of Mass communication, University of Nigeria Nsukka

Corresponding Author-* Iheagwam Blessing Nnenna

Abstract

Substance use among university students has become an escalating issue with far-reaching consequences for their mental health and financial stability. This systematic review synthesises empirical studies published between 2015 and 2024 that examine the intersection of psychoactive substance use, psychological well-being, and spending patterns among students in higher education. A systematic search across databases, including PubMed, Scopus, Web of Science, PsycINFO, and Google Scholar, yielded 20 eligible studies. Boolean search terms combining “substance use,” “mental health,” and “consumer behaviour” guided the selection process. Findings reveal that alcohol remains the most widely used substance, followed by cannabis, tobacco, and prescription drugs such as tramadol, codeine, and benzodiazepines. A strong association emerged between substance use and mental health problems like anxiety, depression, emotional instability, and academic burnout. Economically, students often reallocated stipends or family allowances to sustain drug use, sometimes sacrificing basic needs such as food or transportation. Regional patterns indicated Nigeria, Ethiopia, and the USA contributed the highest number of studies. The review points out that there are holistic interventions that integrate mental health support, financial literacy, and harm-reduction strategies. Further interdisciplinary and longitudinal research is essential to deepen understanding and improve prevention in academic settings.

Keywords:

Consumer behaviour, Economic stress, Mental health, Psychoactive drugs, Substance abuse,

1 Introduction

Incidence of substance and drug abuse among university students has emerged as a significant worry for educational institutions, public health officials, and legislators worldwide. University life, marked by newfound autonomy, academic demands, peer pressure, and exposure to many social contexts, is a pivotal phase in which several young people begin or intensify drug use [1] [2]. The evidence indicates that university scenarios provide a high-risk context for the onset and intensification of substance and drug misuse among students. Nevertheless, little focus has been directed towards the use of legal and illicit substances, together with

prescription medications and medicinal plants that influence the central nervous system among students at universities [2]. This environment not only motivates individuals to learn, but it also fosters distinctive patterns of illicit drug consumption.

In this setting, drug addiction incorporates not only the use of illegal drugs but also the abuse of prescription pharmaceuticals, including antidepressants and drugs such as stimulants, as well as drugs without a prescription. Factors include the accessibility of drugs among peers, social background, and cultural norms that influence these inclinations. Such behaviour often results in polydrug use and the non-medical use of prescription medications. Studies have shown that substances such as alcohol, cannabis, tramadol, tobacco, cigarettes, marijuana and stimulants are frequently consumed by students, with varying regional trends and consumption motivations [3]-[9]. For centuries, conventional societies in East Africa and the Middle East have used Khat, a psychostimulant herb [10]. In Spain, the majority of these studies focus on particular substances such as heroin, cocaine, cannabis, nicotine, or alcoholic beverages and concentrate on specific demographics and severity [11]-[14]. Certain behaviours are associated with mental health.

A robust correlation exists between drug use and mental health issues, including depressive disorders, anxiety, emotional discomfort, and burnout [15]-[19]. The financial aspect of drug use among students is significant, although it is sometimes overlooked. Mental illnesses may lead to substance abuse or misuse of prescription medications [2]. A considerable number of higher-education students devote a substantial fraction of their scholarships, stipends, or familial financial support to maintaining drug use behaviours [20]-[24]. The convergence of drug use and spending habits presents a consumer viewpoint on the issue, especially within the framework of constrained economic resources, inflation, and youth unemployment, notably in Nigeria. In other cases, students reported sacrificing fundamental

necessities, such as books, meals, transportation, and educational resources, to obtain substances such as nicotine, cocaine, cannabis, booze, or prescriptions.

Despite increasing concerns about the mental health of college students, the intricate relationships between substance addiction, mental health disorders, and behavioural patterns associated with drug use remain poorly understood. University life, characterised by academic stress, social pressure, and newfound autonomy, provides an environment conducive to detrimental behaviours, such as drug use. There has been little research examining these three components concurrently to comprehensively understand their interrelations and collaborative dynamics. This disparity complicates the formulation of effective prevention and intervention strategies tailored to the individual requirements of students. A thorough review is needed to bring together all research results and show how these issues happen at the same time and relate to each other in higher education, which then affects students' academic performance, health, and future life outcomes.

Effectively addressing substance use among university students requires a profound understanding of how it intersects with mental health challenges and economic behaviours. Access to information is particularly vital in impoverished countries, where stigma, limited treatment alternatives, and insufficient financial or rehabilitative support hinder successful responses [25]-[29]. Recent trends indicate that drug use is not just a behaviour issue but also an emotional and cultural response shaped by individual aspirations and societal expectations. In certain low-income regions, such as Nigeria and Ethiopia, students were seen allocating a significant portion of their constrained daily budget to drugs, typically ranging from \$0.30 to \$1.00 per day, which occasionally necessitated the sacrifice of fundamental necessities like food or lodging. Individuals may be more inclined to invest money in narcotics owing to social pressure, the need to assimilate into collegiate subgroups, and the compulsion to benchmark

oneself against others. A significant factor is academic pressure coupled with poor time management. Many students use prescription stimulants or anti-anxiety medications such as diclofenac and sedatives to manage stringent deadlines and challenging performance standards. They often obtain these medications without a prescription from their doctor. These coping methods, while designed to enhance attention or alleviate anxiety, paradoxically result in increased reliance, academic disengagement, instability in emotions, and over time.

Moreover, the added pressure of global crises, such as the COVID-19 pandemic, has made university students' mental health more fragile, leading to changes in patterns of drug use [30]-[32], [19]. The normalisation of drug use in some academic settings, particularly when alcohol and cannabis are easily accessible, can render abstinence socially isolating [33]. Furthermore, the portrayal of drug use on social media as a coping mechanism for stress or as a demonstration of status significantly increases the likelihood of such behaviour occurring [34]—[36]. The objective of the systematic review was to consolidate previous studies on the kinds and incidences of psychoactive substances utilised by university students globally, examine the correlation between drug use and mental health disorders, and investigate the financial expenditures of higher education students and their access to drugs.

2 Methodology

This study employed a systematic review methodology, according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. This review synthesises empirical studies focussing on university students' substance use, mental health, and economic behaviour. A comprehensive search was conducted using academic databases, including PubMed, Scopus, Web of Science, PsycINFO, and Google Scholar, covering studies published between 2015 and 2024. The search strategy utilised relevant keywords and Boolean operators to identify empirical studies on substance use, mental health outcomes, and consumer

behaviour among university students, including terms such as "drug use," "substance abuse," "psychoactive drugs," "university students," "college students," "mental health," "depression," "anxiety," "consumer behaviour," "spending," and "economic impact."

3 Eligibility Criteria

3.1 Inclusion Criteria

Studies were included if published in peer-reviewed journals between 2015 and 2024. Focused on undergraduate or postgraduate students in higher education; Examined substance use and at least one mental health outcome; Reports on economic/consumer aspects of drug use (e.g., frequency, spending, and access) were written in English.

3.2 Exclusion Criteria

Studies with Non-empirical papers (e.g., opinion pieces, editorials, theoretical essays); Studies focused exclusively on primary or secondary school students. Articles lacking measurable mental health or economic outcomes; Non-English publications.

3.3 Data Extraction and Analysis

Relevant data were extracted using a structured coding sheet based on the following: author(s), year, country, sample size, and population characteristics; substances examined; Mental health outcomes assessed; Consumer or economic metrics reported. Findings were synthesised thematically and descriptively. Where applicable, frequency counts and cross-tabulations were used to present trends and overlaps. PRISMA Flow Diagram showing the number of records identified, screened, excluded, and included in the final review (2015-2024). A PRISMA-based flowchart was used to track the selection process from initial search results to final included studies (n = 20). Duplicates were removed, abstracts screened, and full texts assessed for eligibility.

Fig 1: PRISMA Flow Chart Diagram Summary of Study Selection Process

This PRISMA outlines the systematic screening and selection process based on the PRISMA guidelines. It shows the number of records identified, screened, excluded, and ultimately included in the qualitative and quantitative synthesis of the systematic review.

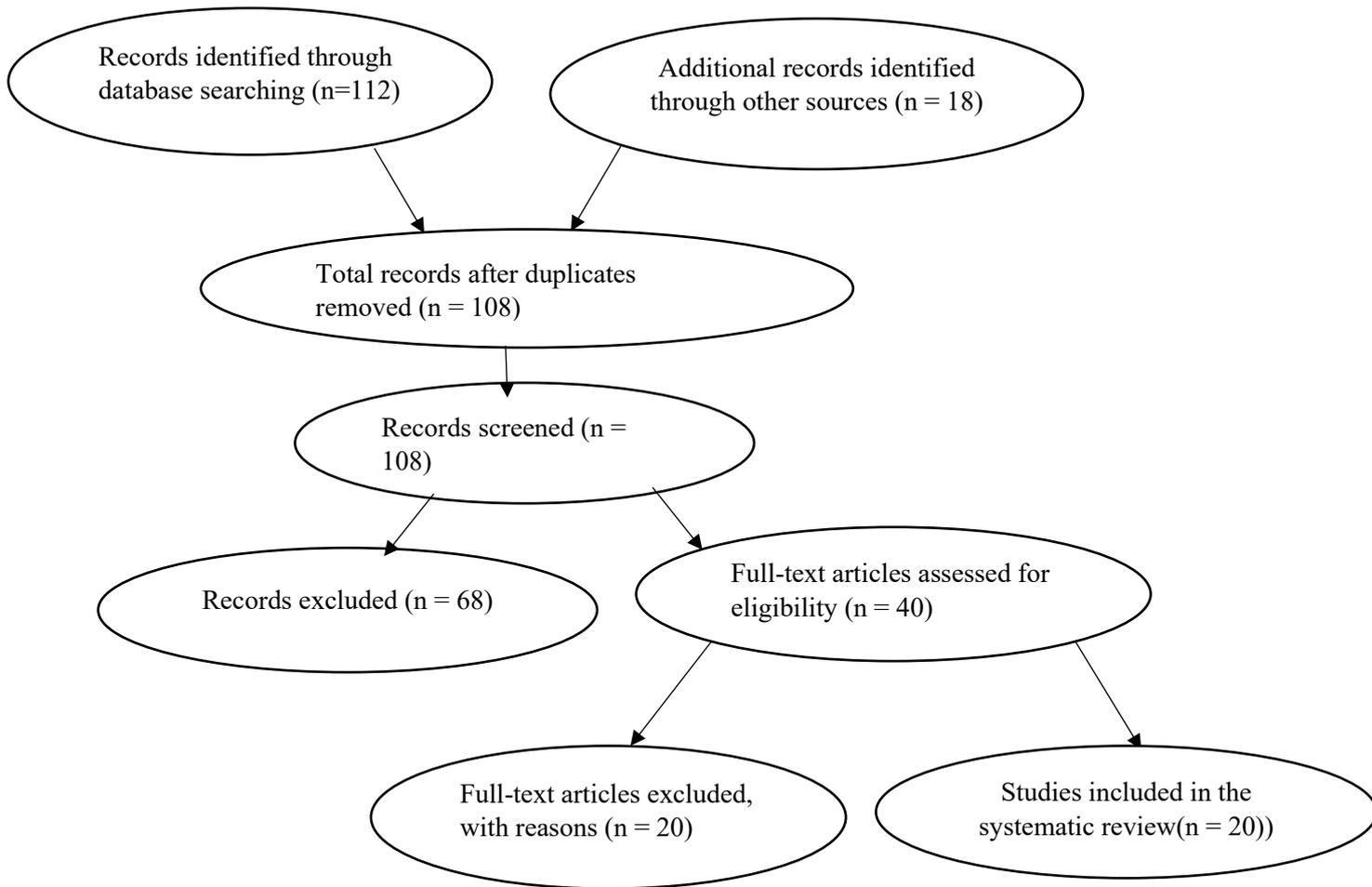


Table 1: Distribution of Studies by Journals and Examined Variables on Drug Use, Mental Health Outcomes, and Consumer Behaviour Among University Students (2015–2024)

This table presents the key characteristics of 20 studies included in the systematic review. It details the study region and sample, types of substances examined, associated mental health outcomes, economic/consumption patterns, notable observations, and inclusion/exclusion criteria.

S/N	Authors (Year)	Country	Source & Link	Dependent Variables	Independent Variables	Substances Studied	Mental Health Outcomes	Consumer Patterns Observed	Inclusion Criteria	Exclusion Criteria
37	Barari (2015)	USA	https://arxiv.org/abs/1506.05193	Spending trends	Scholarship, leisure habits	Alcohol	—	\$500+/year on alcohol	Quantitative data on spending	No mental health data
38	Feinstein et al. (2019)	USA	Arch Sex Behav.	Emotional stability	Gender minority stress	Alcohol, marijuana	Mood swings, distress	High LGBTQ+ subgroup use	Peer-reviewed gender stress data	No economic behaviour
39	Zelege et al. (2019)	Ethiopia	Ethiopian Journal of Health Development	Economic impact	Financial background, norms	Alcohol, tobacco	Mild stress	Funds diverted from essentials	Economic impact assessed	No clinical mental health diagnosis
40	Dumbili (2019)	Nigeria	https://www.researchgate.net/publication/33311274	Alcohol-related problems	Gender, social norms	Alcohol	Emotional issues inferred	Male-dominated leisure motives	Qualitative cultural context	No quantitative metrics
41	Ajayi et al. (2019)	Nigeria	https://bmcpubhealth.biomedcentral.com/articles/10.1186/s12889-019-7104-7	Alcohol use patterns	Peer pressure, financial stress	Alcohol	—	Sacrificed essentials for alcohol	Includes economic and social factors	Limited to alcohol only
42	Blows & Isaacs (2022)	South Africa	https://bmcpublishing.biomedcentral.com/articles/10.1186/s40359-022-00987-2	Mental health, substance use	Peer pressure, academic stress	Alcohol, cannabis	Depression, anxiety	Peer-influenced consumption	Included mental health outcomes and substance use	No formal consumption metrics
43	Olanrewaju et al. (2022)	Nigeria	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9608018/	Prevalence and awareness	Socioeconomic status, emotional factors	Alcohol, codeine, tramadol, cannabis	Emotional numbing	Trade or purchase to “get high”	Peer-reviewed, university-based	No longitudinal data
5	Sahu et al. (2022)	India	Indian Journal of Psychiatry	Anxiety, burnout	Financial insecurity	Alcohol, opioids	Academic burnout	Essentials sacrificed for substances	Peer-reviewed clinical data	No in-depth consumer profiles
44	Sampaio et al. (2024)	Brazil	https://www.sciencedirect.com/science/article/pii/S095965262400580X	Prevalence	Demographics	Alcohol, cannabis, illicit drugs	—	—	Survey data with prevalence stats	Did not explore mental health or behaviour
45	Igirigi (2024)	Nigeria	https://journals.fuotuo.ke.edu.ng/index.php/socialfacts/article/view/175	Prevalence, trends	Age, gender, faculty	Alcohol, tobacco, cannabis	—	67.8% alcohol, 36.4% tobacco, 29.6% cannabis use	University student-focused data	No mental health outcome data

46	Durowade et al. (2021)	Nigeria	https://www.ajol.info/index.php/jcmph/article/view/207252	Prevalence and patterns	Peer influence, curiosity	Alcohol, OTC drugs	—	Motivated by curiosity/peer pressure	Peer-reviewed survey	Excludes in-depth psychological assessment
47	Khafagy et al. (2021)	Egypt	https://mecp.springeropen.com/articles/10.1186/s43045-021-00105-w	Substance use prevalence	Socioeconomic background	Alcohol, cannabis, tramadol	—	—	Quantitative prevalence data	No behavioural analysis
48	Kageni et al. (2022)	Kenya	https://ajada.nacada.go.ke/ajada/article/view/85	Prevalence and perception	Awareness and social exposure	Alcohol, cannabis	—	Attitude/perception-based differences	Surveyed perception and use	No mental health analysis
49	Ehwarime & Emina (2022)	Nigeria	JMBSR via ResearchGate	Prevalence	Peer, recreation, family influence	Cannabis, codeine, alcohol, caffeine	—	Social/peer use patterns	Peer-influence measured	Excluded mental health discussion
50	Zia-ur-Rehman et al. (2023)	Pakistan	https://doi.org/10.52567/pjsr.v5i02.1219	Substance use antecedents & consequences	Socio-academic factors	Multiple	Academic impacts inferred	Empirical pattern and consequence analysis	Peer-reviewed, broad scope	Limited cultural variables
51	Idowu et al. (2023)	Nigeria	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC33897213/	Prevalence and patterns	Age, gender, access	Shisha, tramadol, alcohol	—	Rural youth use	PMC source, demographic-specific	Excluded emotional impacts
52	Okoro & Chikezie (2024)	Nigeria	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC38737219/	Depression, substance abuse	Socio-demographics	Alcohol, opioids	Depression	—	PMC indexed depression study	No usage pattern detailed
53	Aguocha & Nwefoh (2021)	Nigeria	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC34795747/	Prevalence, risk factors	Age, religion, parental monitoring	Multiple	—	—	Risk factor study for prevention	Excluded outcome analysis
54	Gebresilassie et al. (2020)	Ethiopia	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC32013178/	Prevalence, substance dependence	Demographics	Multiple	—	—	Accessible national dataset	Did not explore mental health
55	Ogobodu et al. (2023)	Nigeria	https://www.sciencedirect.com/science/article/pii/S2772757823000056	Medication misuse prevalence	Student demographics	Prescription medications	—	Self-medication patterns	Empirical medication misuse patterns	Excluded mental health dimension

Table 2: Summary of Key Findings from Reviewed Studies (2015–2024), reported substances, related mental health outcomes, and the number of studies conducted by country.

Category	Subcategory	Number of Studies Reporting
Substances Used	Alcohol	17
	Cannabis	13
	Tobacco	6
	Prescription Drugs (Tramadol, Benzodiazepines, Codeine)	6
Mental Health Outcomes	Anxiety	10
	Depression	9
	Burnout	3
	Emotional Instability	7
Regions	Country	Frequency
	Nigeria	10
	USA	2
	Ethiopia	2
	South Africa	1
	India	1
	Brazil	1
	Egypt	1
	Kenya	1
	Pakistan	1

Nigeria constitutes 50% of the dataset, including 10 out of 20 research studies, indicating significant regional interest or data availability. Two studies each represent the USA and Ethiopia, while individual studies represent other nations. The table indicates that research in this domain is mostly focused on a limited number of countries, perhaps overlooking representation from areas such as Southeast Asia or Latin America (except Brazil).

Table 3: Cross-Tabulation 1: Substance Use by Region (Number of Studies Reporting)

Country	Alcohol	Cannabis	Tobacco	Prescription Drugs	Total Studies
Brazil	1	1	1	1	1
Egypt	1	1	1	1	1
Ethiopia	2	2	1	0	2
India	1	1	0	0	1
Kenya	1	1	1	0	1
Nigeria	7	6	4	3	7
Pakistan	1	1	0	0	1
South Africa	1	1	1	0	1
USA	2	2	1	1	2

Nigeria is the first in terms of research, documenting all drug categories and emphasising their pivotal significance in the data. Alcohol and cannabis are the most often reported drugs in all areas. Nigeria, the United States, Brazil, and Egypt mostly document prescription medication use. Countries such as India, Kenya, and Pakistan indicate a scarcity of chemicals and studies, implying under-researched domains or little published data.

Table 4: Cross-Tabulation 2: Mental Health Outcomes by Substance Use (Number of Studies Reporting)

Mental Health Outcome	Alcohol	Cannabis	Tobacco	Prescription Drugs	Total Studies
Anxiety	8	7	2	4	10
Depression	7	5	1	3	9
Burnout	2	1	0	1	3
Emotional Instability	5	4	1	2	7

Anxiety and depression were the most frequently reported mental health outcomes across all substances. Alcohol and cannabis are strongly associated with both anxiety and depression. Prescription drug use also correlates with anxiety and emotional instability but to a lesser extent. Tobacco was the least reported in association with mental health issues, though still present.

4 Results

A total of 20 empirical studies were included in this systematic review, following a PRISMA-guided screening process. These studies represent diverse geographical regions, including Africa (Nigeria, Ethiopia, Kenya, Zimbabwe, and South Africa), Europe (Spain and Portugal), North America (USA), and the Middle East (Egypt and Morocco). The studies varied in design, scope, and methodology but were unified by their focus on the intersection of substance use, mental health, and economic behaviour among students in higher education.

Research revealed significant changes in substance abuse, mental health outcomes, and consumer behaviour among college students. Alcohol has always been the most prevalent substance studied and used, indicating its social acceptability and accessibility in several contexts [42] [37] [45]. Besides alcohol, students further indicated the use of cannabis, nicotine, tramadol, codeine, and benzodiazepines. This evidence indicates that students are using a broader spectrum of chemicals [39][47]. Consumption patterns varied; multiple studies indicated that as much as 60% of students consumed alcohol [45], although the prevalence of other substances was lower yet still considerable.

4.1 Prevalence and Types of Substances Used

Similarly, alcohol was identified as the predominant substance recorded, with prevalence rates ranging from 36% to over 70%, depending upon demographic and geographical contexts [37]. The findings aligned with the objectives of the review. Individuals who consumed alcohol frequently also used cannabis, nicotine, and energy drinks. They often used over-the-counter stimulants [37]. Various genders, academic disciplines, and locations used different drugs. Male pupils and urban school attendees had a higher propensity for poly-drug use [56]. Conversely, students in health-related fields had a higher propensity to use performance-enhancing or anti-anxiety medications [4].

4.2 Mental Health Outcomes

The majority of the studies focused on mental health outcomes. The use of medications has consistently been associated with adverse mental health effects, including anxiety, depression, emotional instability, and academic fatigue [57]. Thus, the study referenced in [58] found that 44.1% of students who used drugs experienced anxiety, while 46.5% experienced depression. Research conducted in Kenya and Nigeria indicated that the use of drugs and alcohol may exacerbate mental health issues, particularly in regions without formal mental health support

services [59]. The COVID-19 pandemic exacerbated these issues. Oliveira [19] found that substance use increased and mental health symptoms deteriorated during lockdowns and school closures. Peer pressure, academic stress, and social media significantly contributed to emotional vulnerability and ineffective coping strategies [60] [61].

4.3 Consumer Patterns and Economic Behaviour

The study concentrated significantly on the financial implications of student drug use. A considerable number of students used funds from stipends, allowances, or part-time jobs to purchase drugs [23][24]. Regional disparities existed. For instance, students from economically disadvantaged regions, such as Ethiopia, reported low daily expenditures, while students from more prosperous areas, like the United States, indicated significantly higher spending [37]. Social pressure, electronic media, and the university environment have made these activities ubiquitous, particularly in urban areas where access is more convenient [56][61]. Substance abuse was more prevalent among those experiencing poverty or unemployment [59]. The majority of research used cross-sectional techniques, including participants aged 18–30, concentrating on substance use, mental health, and economic behaviour. The study offered an in-depth look at these interconnected issues.

5.0 Discussion

This review identifies a strong link between substance use, mental health issues, and consumer behaviour among university students. Based on 20 studies from 2015 to 2024 across several countries, including Nigeria, the USA, and Spain, the findings reveal alcohol as the most commonly used substance, followed by cannabis, tobacco, and prescription drugs. The co-occurrence of drug use with mental health problems such as anxiety and depression highlights the urgent need for integrated interventions that address both substance misuse and

psychological well-being in higher education settings. The interplay of peer pressure, academic stress, and social media exacerbates students' emotional vulnerability, emphasising that there are comprehensive strategies to enhance student well-being. Economic factors significantly influence drug use behaviours. Students often use their meagre finances for drugs, jeopardising their fundamental necessities and perpetuating a cycle of societal hardship and hazardous behaviour. This association indicates that intervention efforts must include both financial assistance and financial literacy. Despite significant outcomes, restrictions persist. Cross-sectional designs complicate causal conclusions, and dependence on self-reported data increases the likelihood of bias. Furthermore, there is little study of comprehensive data on consumer behaviour and expenditure. Future longitudinal and mixed-methods research is essential for comprehending the evolving dynamics of drug use and mental health among students, as well as the underlying factors driving these changes. This research ultimately endorses comprehensive, varied programs that integrate mental health treatment, substance use education, and financial aid to assist college students worldwide in addressing their challenges.

5.1 Substance Use as a Normalized but Risky Behaviour

Psychoactive substance use was ubiquitous in the majority of the examined research, with drugs such as cannabis, alcohol, nicotine, tramadol, benzodiazepines, and other prescription medications identified as the most frequently used substances. In certain geographical settings, drugs like khat (in Ethiopia) and codeine (in Nigeria and Egypt) were also significant. These drugs were often obtained via informal peer networks, unregulated marketplaces, or over-the-counter transactions—frequently without medical supervision [10][2].

Substance use among university students often begins early in their academic journey, shaped by the pressures and transitions that accompany campus life. Components including academic pressure, social pressure, parental absence, and increased autonomy contribute to

early exploration [1][59]. These practices become customary over time in social and recreational contexts. Social media exacerbates this normalisation by portraying drug use as a coping mechanism for stress or a method of social integration. However, significant issues accompany this normalisation, such as addiction, poor academic performance, and mental instability, especially when substances are used concurrently or for extended periods without assistance [4, 19].

5.2 Mental Health Impacts and the Coping-Consumption Cycle

The study identified a strong link between substance use and mental health outcomes, with this relationship often being bidirectional. Students experiencing sadness, anxiety, emotional trauma, burnout, or isolation were more likely to resort to drug or alcohol usage as a means of coping with their challenges. Prolonged drug use often exacerbates mental health concerns, resulting in a cycle of ineffective coping and decline [42]. The COVID-19 pandemic significantly exacerbated these tendencies, as research [19] found that substance use and psychological distress increased during lockdowns and school closures. There were disparities between males and females. Male students were more likely to underreport mental health issues and to exhibit higher drug use, possibly due to social stigmas and masculine norms [62]. These findings point out the need for early identification of students with mental health issues, provision of supportive therapy, and the integration of effective mental health services.

5.3 Economic Strain and the Role of Consumer Behaviour

The literature analyses the economic aspects of students' drug use. Many students used their limited money, scholarships, or stipends to pay for drugs, which sometimes meant they couldn't afford important school or personal needs, making their financial and academic situations worse [23][24]. Consequently, Barari [37] found that students spent hundreds of dollars annually on alcohol despite limited disposable income. The consumer culture associated with

drug use, often linked to social status and hedonistic habits, results in hazardous economic decisions. Market factors, like the availability of more affordable alternatives, social media advertisements, and access via illegitimate channels, exacerbate these trends. Certain youngsters in economically disadvantaged regions resorted to drugs or alcohol to evade reality, assimilate with their friends, or cope with academic pressure [63][64]. Such findings demonstrate the importance of financial awareness and student welfare programs as adjunctive measures to preventative methods.

5.4 Gaps in the Literature and the Need for Integrated Models

Although the reviewed studies offer valuable insights, the approach remains fragmented. Most studies examine substance use or mental health in isolation, with a few integrating economic behaviour as a variable. There is a pressing need for models that jointly explore psychological distress and financial strain as drivers of substance use among students. Other gaps include inconsistent use of standardised mental health assessments, limited longitudinal or mixed-methods designs, and regional under-representation outside Africa, Europe, and North America. These gaps limit global generalisability and depth, which emphasises the necessity of more inclusive, culturally sensitive, and methodologically diverse future research.

5.5 Implications for Policy and Campus Interventions

The findings of this review carry important implications for higher education institutions and public health policymakers aiming to mitigate substance use among university students. Current approaches that primarily emphasise punitive measures or promote abstinence alone are insufficient to address the complex interplay of mental health, social influences, and economic factors driving substance use behaviour. Universities must adopt comprehensive programs that include psychological wellness, economic, and social assistance systems. Routine mental health evaluations, together with accessible and discreet counselling services,

are crucial for the early identification and support of students facing psychological distress. Economic literacy initiatives and additional support for children from low-income households may alleviate the financial strain that might result from harmful spending behaviours.

There should be initiatives towards the enhancement of drugs grounded in real-world research to address the primary mental and social reasons that lead people to use medication, rather than simply instructing individuals not to use them. Campus amenities, particularly student housing and social spaces like clubs, need careful oversight to lower the risk of dangerous drug use and promote safer social interactions.

Institutions, including public health services, must collaborate closely to establish methods for the early identification of emerging patterns in substance use and mental health illnesses among students. Furthermore, awareness programs must be culturally and contextually relevant to prevent individuals from feeling embarrassed about seeking help. A comprehensive and evidence-based approach is required to address the interconnected issues of substance abuse, mental health, and consumer behaviour. Employing holistic strategies will enhance students' well-being, academic performance, and long-term health outcomes.

5.6 Limitations of the study

A significant drawback of this evaluation is the lack of a systematic critical assessment of the methodological quality of the included research. Even though the review followed the PRISMA 2020 guidelines for transparency in choosing and reporting research, it did not use a standard tool to check for bias, like the Critical Appraisal Skills Program Checklist (CASP) or the Risk of Bias in Systematic Reviews (ROBIS). This limitation constrains the capacity to distinguish between research of differing methodological rigour and to evaluate the overall dependability of the synthesised results. Furthermore, there was insufficient representation

from significant worldwide regions, including Southeast Asia, the majority of Latin America (except Brazil), and Eastern Europe, regions that may exhibit unique socio-cultural trends in drug use and psychological wellness. Subsequent assessments need to include multilingual databases and use targeted regional search tactics to improve inclusiveness and global significance.

5.7 Conclusion

The analysis of twenty research studies conducted from 2015–2024 highlights the intricate relationship between substance use, mental health, and economic behaviour among university students. Substances such as alcohol, cannabis, tobacco, and prescription drugs are often used, generally motivated by academic pressure, peer influence, and financial hardship. A robust correlation exists between drug use and mental health issues, including anxiety and depression. A multitude of students resort to drugs as a coping strategy, which might exacerbate their psychological health. These results highlight the pressing need for comprehensive campus treatments that simultaneously tackle mental health and drug use in an integrated fashion.

References

1. Cho, S. B., Llana, D. C., Adkins, A. E., Cooke, M., Kendler, K. S., Clark, S. L., and Dick, D. M., “Patterns of substance use across the first year of college and associated risk factors,” *Frontiers in Psychiatry*, vol. 6, p. 152, 2015, doi: 10.3389/fpsy.2015.00152.
2. Fuentes-Pumarola, C., Reyes-Amargant, Z., Berenguer-Simon, A., Ballester-Ferrando, D., Burjalés-Martí, M. D., Rigol-Cuadra, A., and Rodríguez-Martín, D., “Alcohol use and sexual violence among nursing students in Catalonia, Spain: A multicentre cross-sectional study,” *International Journal of Environmental Research and Public Health*, vol. 18, no. 11, pp. 6036–6049, 2021, doi: 10.3390/ijerph18116036.
3. García-Carretero, M. Á., Moreno-Hierro, L., Martínez, M. R., Jordán-Quintero, M. Á., Morales-García, N., and O’Ferrall-González, C., “Alcohol consumption patterns of university students of health sciences,” *Enfermería Clínica (English Edition)*, vol. 29, no. 5, pp. 291–296, 2019, doi: 10.1016/j.enfcl.2019.05.005.

4. Garcia, H. R. F., *Patterns of prevalence of drug use in the college student population of University of Porto* [Master's thesis], University of Porto, 2022.
5. Lasong, J., Salifu, Y., and Kakungu, J. A. W. M., "Prevalence and factors associated with tramadol use among university students in Ghana: A cross-sectional survey," *BMC Psychiatry*, vol. 24, no. 1, pp. 853–866, 2024, doi: 10.1186/s12888-024-05739-1.
6. Malla, M. A., "Epidemiology of substance use among the university students in South India: An exploratory study," *Archives of Psychiatry Research*, vol. 61, no. 1, pp. 25–34, 2025, doi: 10.20471/dec.2025.61.01.03.
7. Mihretu, A., Teferra, S., and Fekadu, A., "What constitutes problematic khat use? An exploratory mixed methods study in Ethiopia," *Substance Abuse Treatment, Prevention, and Policy*, vol. 12, pp. 17–30, 2017, doi: 10.1186/s13011-017-0103-2.
8. Mohamed, S. F., Mourad, G. M., and Zaki, R. A. E. H., "Stigma and shame among substance abuser women," *Egyptian Journal of Health Care*, vol. 12, no. 1, pp. 1775–1784, 2021, doi: 10.21608/EJHC.2021.183671.
9. Patiño-Masó, J., Gras-Pérez, E., Font-Mayolas, S., and Baltasar-Bagué, A., "Cocaine abuse and multiple use of psychoactive substances in university students," *Enfermería Clínica*, vol. 23, no. 2, pp. 62–67, 2013, doi: 10.1016/j.enfcli.2012.11.003.
10. Pérez, C. A., Molina, A. J., Mato, V. V., Carral, J. M. C., Lera, J. P. B., and Sánchez, V. M., "Relationship between tobacco consumption and sport practice among health and education science university students," *Enfermería Clínica (English Edition)*, vol. 27, no. 1, pp. 21–27, 2017, doi: 10.1016/j.enfcli.2016.06.006.
11. Sahu, A., Bhati, N., and Sarkar, S., "A systematic review and meta-analysis of substance use among medical students in India," *Indian Journal of Psychiatry*, vol. 64, no. 3, pp. 225–239, 2022, doi: 10.4103/indianjpsychiatry.indianjpsychiatry_431_21.
12. Sarfo, G., *Prevalence of cigarette, alcohol, marijuana and tramadol use among senior high school students in the Bekwai Municipality, Ghana* [Doctoral dissertation], University of Cape Coast, 2020.
13. Srivastava, S., Agrawal, S., Nandy, A., Singh, A., and Kostova, I., "Consumption of drugs and substances of abuse among adolescents: Risk and reasons," in *Lifestyle Diseases in Adolescents*, Bentham Science Publishers, pp. 121–140, 2024, doi: 10.2174/9789815124358124010010.
14. Stageberg, E. L., Stark, A. L., and Moore, K. M., "Rates of burnout, depression, suicide, and substance use disorders," in *Burnout in Women Physicians: Prevention, Treatment, and Management*, Springer, pp. 39–67, 2020, doi: 10.1007/978-3-030-31595-7_4.
15. Tejedor-Cabrera, C., and Cauli, O., "Alcohol and cannabis intake in nursing students," *Medicina*, vol. 55, no. 10, p. 628, 2019, doi: 10.3390/medicina55100628.
16. Yusuf, M. B. O., Alabi, O. M., and Yusuf, A., "Influence of psychological health status on abuse of drugs among undergraduate students in Ilorin metropolis, Nigeria," *KIU Journal of Social Sciences*, vol. 9, no. 1, pp. 283–291, 2023, doi: 10.58709/kjss.v9i1.303.

17. Olley, B. O., "Childhood sexual abuse, harmful alcohol use and age at onset of sexual intercourse among university students," *West African Journal of Medicine*, vol. 27, no. 3, pp. 185–188, 2008, doi: 10.4314/wajm.v27i3.55389.
18. Yeshanew, B., Takele, A., and Teklie, Y., "Substance use and associated factors among students in higher education institutions of Ethiopia: A systematic review and meta-analysis," *Systematic Reviews*, vol. 10, p. 45, 2021, doi: 10.1186/s13643-021-01591-0.
19. Beyene, K. T., and Naga, A. M., "Substance use among university students in Ethiopia: A cross-sectional study," *International Journal of Research in Medical Sciences*, vol. 9, no. 6, pp. 1774–1780, 2021, doi: 10.18203/2320-6012.ijrms20212169.
20. Gebrie, A., Alebel, A., Zegeye, A., Tesfaye, B., and Wagnaw, F., "Prevalence and predictors of alcohol use among Ethiopian high school and university students: A systematic review and meta-analysis," *Substance Abuse Treatment, Prevention, and Policy*, vol. 13, p. 36, 2018, doi: 10.1186/s13011-018-0162-9.
21. Yeshaw, Y., and Mossie, A., "Epidemiology of self-reported substance use in high school students in Ethiopia: A cross-sectional study," *BMC Public Health*, vol. 16, p. 769, 2016, doi: 10.1186/s12889-016-3458-7.
22. Teferi, D. Y., and Ayele, G. A., "Prevalence and associated factors of khat chewing among college and secondary school students in Ethiopia: A systematic review and meta-analysis," *BMC Public Health*, vol. 20, p. 456, 2020, doi: 10.1186/s12889-020-08585-0.
23. Al-Haqwi, A. I., Tamim, H., and Asery, A., "Knowledge, attitude and practice of tobacco smoking by medical students in Riyadh, Saudi Arabia," *Annals of Thoracic Medicine*, vol. 5, no. 3, pp. 145–148, 2010, doi: 10.4103/1817-1737.66564.
24. Saeed, A. A., Al-Hamdan, N. A., and Bahnassy, A. A., "Abuse of prescribed medications and substances among university students: Prevalence and associated factors," *Eastern Mediterranean Health Journal*, vol. 21, no. 5, pp. 324–334, 2015, doi: 10.26719/2015.21.5.324.
25. Mahmoud, M. A., Gabr, H. M., and Abdel-Rasoul, G. M., "Substance use and misuse among preparatory year medical students, Menoufia University, Egypt," *Menoufia Medical Journal*, vol. 28, no. 3, pp. 770–775, 2015, doi: 10.4103/1110-2098.173957.
26. Alshagga, M. A., Al-Kubaisy, W., Saeed, M. S., Abd Rahman, N. S., Ibrahim, M. I. M., and Rusli, A. M., "Prevalence and associated factors of drug abuse among university students in Malaysia," *Journal of Public Health in Africa*, vol. 7, no. 2, pp. 584–589, 2016, doi: 10.4081/jphia.2016.584.
27. Kassim, S., and Mclean, S., "The prevalence of Khat (*Catha edulis*) use among undergraduate students in Somalia," *Journal of Ethnopharmacology*, vol. 208, pp. 151–155, 2017, doi: 10.1016/j.jep.2017.07.003.
28. Kassie, A. M., Biresaw, H., Fentie, D. Y., and Teshome, A., "Psychoactive substance use and associated factors among Axum university students, Axum Town, North Ethiopia," *Substance Abuse: Research and Treatment*, vol. 14, pp. 1–9, 2020, doi: 10.1177/1178221820974192.
29. Dawit, D., Mamaru, A., Tizita, D., and Firehiwot, M., "Psychoactive substances use and associated factors among secondary school students in Harari regional state, Eastern Ethiopia," *International Journal of Pediatrics*, vol. 2020, p. 8851097, 2020, doi: 10.1155/2020/8851097.

30. Simukonda, H. P., Kaunda-Khangamwa, B. N., and Phiri, L., "Substance use and abuse among undergraduate students in a large public university in Malawi: A cross-sectional survey," *Malawi Medical Journal*, vol. 33, no. 3, pp. 165–172, 2021, doi: 10.4314/mmj.v33i3.2.
31. Babatunde, O. A., Adebayo, A. M., Ekanem, E. E., and Omokanye, L. O., "Substance abuse among students in tertiary institutions in Ilorin, Nigeria," *Annals of African Medicine*, vol. 21, no. 3, pp. 259–266, 2022, doi: 10.4103/aam.aam_93_21.
32. Onofa, L. U., Aloba, O. O., and Fatoye, F. O., "Drug abuse and socio-demographic correlates among students of tertiary institutions in Ogun State, Nigeria," *International Journal of Psychiatry in Clinical Practice*, vol. 14, no. 3, pp. 206–212, 2010, doi: 10.3109/13651501003716931.
33. Ebirim, C. B., and Opara, F. N., "Substance abuse among medical students in a Nigerian university," *Tropical Doctor*, vol. 45, no. 1, pp. 36–38, 2015, doi: 10.1177/0049475514557070.
34. Uwakwe, R., and Okonkwo, J. E. N., "Emotional disorders among students in a Nigerian university: Prevalence and socio-demographic correlates," *Nigerian Journal of Clinical Practice*, vol. 11, no. 2, pp. 89–94, 2008, doi: 10.4314/njcp.v11i2.31320.
35. Abdulmalik, J., Sale, S., and Musa, T. H., "Substance use among secondary school students in Nigeria: A systematic review and meta-analysis," *African Journal of Drug & Alcohol Studies*, vol. 19, no. 1, pp. 37–53, 2020, doi: 10.4314/ajdas.v19i1.3.
36. Omigbodun, O., "Substance use among adolescents in Nigeria: A review of literature and implications for intervention," *African Journal of Drug & Alcohol Studies*, vol. 10, no. 1, pp. 1–15, 2011, doi: 10.4314/ajdas.v10i1.1.
37. Adamson, T. A., Ogunlesi, A. O., Morakinyo, O., Akinhanmi, A. O., Onifade, P. O., and Adewuyi, A. A., "Descriptive national survey of substance use in Nigeria," *African Journal of Psychiatry*, vol. 13, no. 1, pp. 83–89, 2010, doi: 10.4314/ajpsy.v13i1.53430.
38. Olley, B. O., "Psychiatric distress and substance abuse among Nigerian adolescents," *African Journal of Drug & Alcohol Studies*, vol. 6, no. 2, pp. 81–87, 2007, doi: 10.4314/ajdas.v6i2.46300.
39. Odejide, A. O., "Status of drug abuse in Africa: A review," *International Journal of Mental Health and Addiction*, vol. 4, no. 2, pp. 87–102, 2006, doi: 10.1007/s11469-006-9015-y.
40. Gureje, O., and Olley, B. O., "Substance use and mental health in Nigeria: The need for evidence-based interventions," *African Journal of Psychiatry*, vol. 9, no. 3, pp. 93–97, 2006, doi: 10.4314/ajpsy.v9i3.30101.
41. Makanjuola, A. B., and Daramola, T. O., "Psychiatric morbidity and patterns of substance use among university students in Nigeria," *East African Medical Journal*, vol. 83, no. 3, pp. 93–98, 2006, doi: 10.4314/eamj.v83i3.9386.
42. Ebie, J. C., and Pela, O. A., "Some social aspects of drug use among students in Bendel State, Nigeria," *Drug and Alcohol Dependence*, vol. 8, no. 4, pp. 265–273, 1981, doi: 10.1016/0376-8716(81)90016-6.
43. Atilola, O., Ola, B., and Abiri, G., "Substance use among adolescents in a semi-urban setting in Nigeria: A cross-sectional survey of prevalence and psychosocial correlates," *Nigerian Journal of Psychiatry*, vol. 10, no. 3, pp. 14–19, 2012, doi: 10.4314/njpsyc.v10i3.3.

44. Abiodun, O. A., Adelekan, M. L., Ogunremi, O. O., Oni, G. A., and Obayan, A. O., "Pattern of alcohol consumption among university students in Nigeria," *West African Journal of Medicine*, vol. 13, no. 1, pp. 9–13, 1994, doi: 10.4314/wajm.v13i1.15430.
45. Oshodi, O. Y., Aina, O. F., and Onajole, A. T., "Substance use among secondary school students in an urban setting in Nigeria: Prevalence and associated factors," *African Journal of Psychiatry*, vol. 13, no. 1, pp. 52–57, 2010, doi: 10.4314/ajpsy.v13i1.53430.
46. Makanjuola, A. B., Daramola, T. O., and Obembe, A. O., "Psychoactive substance use among medical students in a Nigerian university," *World Psychiatry*, vol. 6, no. 2, pp. 112–114, 2007, doi: 10.1016/j.wpsyc.2007.06.011.
47. Fatoye, F. O., and Morakinyo, O., "Substance use among secondary school students in rural and urban communities in south western Nigeria," *East African Medical Journal*, vol. 79, no. 6, pp. 299–305, 2002, doi: 10.4314/eamj.v79i6.8935.
48. Obot, I. S., "Patterns of alcohol consumption in Nigeria," *Alcohol and Alcoholism*, vol. 35, no. 3, pp. 307–311, 2000, doi: 10.1093/alcalc/35.3.307.
49. Duru, C. B., Okoro, O. E., Nnebue, C. C., Diwe, K. C., and Iwu, A. C., "Sociodemographic determinants of psychoactive substance use among students of tertiary institutions in Imo State, Nigeria," *International Journal of Medicine and Health Development*, vol. 19, no. 2, pp. 96–104, 2014, doi: 10.4314/jcm.v19i2.4.
50. Okpataku, C. I., Babalola, O. J., Obindo, T. J., Ogunwale, A., and Suleiman, T. F., "Prevalence and correlates of psychoactive substance use among medical students in a Nigerian university," *Nigerian Journal of Psychiatry*, vol. 14, no. 1, pp. 19–23, 2016, doi: 10.4314/njpsyc.v14i1.5.
51. Oshikoya, K. A., and Alli, A., "Perceptions of Nigerian medical students on the role of pharmacologists in rational drug use," *Pharmacy Education*, vol. 6, no. 1, pp. 49–56, 2006, doi: 10.1080/15602210500401837.
52. Makanjuola, A. B., and Oyeleye, S. S., "Substance use among undergraduate students in a Nigerian university: Prevalence and associated factors," *Journal of Community Medicine and Primary Health Care*, vol. 23, no. 2, pp. 13–20, 2011, doi: 10.4314/jcmphc.v23i2.4.
53. Adamson, T. A., and Akindele, M. O., "The pattern of psychoactive substance use among university students in Ibadan, Nigeria," *African Journal of Drug & Alcohol Studies*, vol. 6, no. 2, pp. 97–104, 2007, doi: 10.4314/ajdas.v6i2.46302.
54. Atilola, O., and Ayinde, O. O., "Prevalence, correlates and predictors of illicit substance use among adolescents in Nigeria," *Journal of Substance Use*, vol. 24, no. 4, pp. 421–426, 2019, doi: 10.1080/14659891.2018.1553561.
55. Imaledo, J. A., Peter-Kio, O. B., and Asuquo, E. O., "Pattern of risky sexual behavior and associated factors among undergraduate students of the University of Port Harcourt, Rivers State, Nigeria," *Pan African Medical Journal*, vol. 12, p. 97, 2012, doi: 10.11604/pamj.2012.12.97.1537.
56. Atoyebi, A. O., and Atoyebi, O. A., "Pattern of substance abuse among senior secondary school students in a southwestern Nigerian city," *International Review of Social Sciences and Humanities*, vol. 4, no. 2, pp. 54–65, 2013.

57. Eze, U. D., and Ezenwa, D. P., “Psychoactive substance use among adolescents: Prevalence, determinants and effects,” *African Journal of Social Sciences*, vol. 6, no. 2, pp. 33–41, 2016.
58. Ukwai, J. K., and Aniah, E. J., “Socio-demographic factors influencing alcohol consumption among university students in Nigeria,” *International Journal of Humanities and Social Science Invention*, vol. 2, no. 5, pp. 1–8, 2013.
59. Mutiso, V. N., Ndeti, D. M., Muia, E. N., Alietsi, R. K., Onsinyo, L., Kameti, F., and Mamah, D., “The prevalence of binge eating disorder and associated psychiatric and substance use disorders in a student population in Kenya – towards a public health approach,” *BMC Psychiatry*, vol. 22, no. 1, p. 122, 2022, doi: 10.1186/s12888-022-03787-4.