International Journal of Academic and Applied Research (IJAAR)
ISSN: 2643-9603
Vol. 9 Issue 3 March - 2025, Pages: 99-107

Public Perception Of The Factors Influencing The Prevalence Of Substance Abuse In Kaduna State, Nigeria

Ejeh Benedict[1] Abu Ibrahim[1] John[2] Aduke Olufunmilayo Bello[3] Muhammad Fatima Alamai[4]

[1 &4] Dept. of Geography, Federal University, Gashua, Yobe State, Nigeria
[1] Dep. of Geography and Environmental Management, A.B. U Zaria, Kaduna State, Nigeria.
[3] Dept. of Geography, Federal University of Education, Zaria, Kaduna State, Nigeria.
Corresponding Author's Email: findbenejehnear82@gmail.com

Abstract: *The study was conducted to assess the determinants of the prevalence of substance abuse in Kaduna State. The objectives were to assess the knowledge of substance abuse in Kaduna State; examine the sources of knowledge of substance abuse and to examine the determinants of substance abuse in the study area. Multi stage simple random sampling technique was used to select 396 respondents. Data were collected through self-developed substance abuse questionnaire (SAQ), and analyzed using descriptive and inferential statistics. The results of the study revealed a very high knowledge of SA among the public in the study area. Friends/peers (28%) and family/relatives (22%) are the source of knowledge. The principal component analysis (PCA) result group the perceived determinants of SA into six such as social risk factors (19.5%), individual risk factors (11.7%), economic risk factors (10.8%), psychological risk factors (9.4%), positive image of advert and model risk factors (7.0%) and limited parental upbringing (6.0%) respectively with eigen value greater than I. It is therefore recommended that; Government in conjunction with the health education department should periodically organize seminars to educate the university community on the short and long term health consequences of substance abuse as this will go a long way to discourage both and adult from abusing drugs, there is need by National University Commission to introduce drug education as a general studies (GNS) course in tertiary institutions with the focus on health and career implications of substance abuse and rehabilitation of substance abusers.*

Keywords: Determinants, Substance abuse and public perception, Kaduna State

Background of the study

Substance abuse is a significant public health concern in Nigeria, exerting a negative impact on the country's economic development. Within this context, a substance refers to any chemical that, when introduced into the body whether through smoking, injection, ingestion, inhalation, or swallowing in pill form affects a person's mood or behavior (Olujide, Adeusi, Ahamadu, & Muyiwa, 2015). When a substance is intentionally consumed to produce physiological and/or psychological effects outside of therapeutic purposes, and its use poses health risks, it is classified as substance abuse (Nyaoke, 2013).

Substance abuse is defined as the non-medical and often deliberate self-administration of a substance to induce psychoactive effects, intoxication, or an altered perception of self and reality, despite awareness of its potential negative consequences. It is one of the numerous social problems that have emerged due to the changing dynamics of Nigerian society (Desmond, 2009). The rising trend of substance abuse among both men and women has become an issue of national concern, with many recent crimes being linked to drug use (Siro, 2008). The global increase in substance abuse has raised alarm among health professionals and policymakers. In 2017, drug users accounted for approximately 0.9% of the world's population. Alcohol abuse alone was responsible for 3.3 million deaths annually, while approximately 31 million individuals suffered from substance abuse disorders. According to the World Health Organization (WHO, 2019), over 2.6 million people aged 10–24 die each year due to substance abuse.

The widespread prevalence of substance abuse in Nigeria has led to devastating consequences, including a decline in societal consciousness, mental health disorders, fatalities, addiction, and various socio-economic hardships. The prevalence rates of substance abuse vary across Nigeria's six geopolitical zones. Akannma (2008) reported that the Northwest region, which includes Kaduna State, accounts for approximately 37–47% of Nigeria's drug victims. The Southwest follows with 17.32%, while the Southeast, North-Central, and Northeast record 13.5%, 11.71%, and 8.54%, respectively. A significant portion of Nigeria's population, estimated at 30–35 million people, spends between $15,000 and $30,000 annually on psychotropic substances, alcohol, and beverages.

The National Institute on Drug Abuse (NIDA, 2016) identified commonly abused substances worldwide, including alcohol, marijuana, amphetamines (such as ecstasy and molly), opioids, tobacco/nicotine, inhalants, hallucinogens, heroin, anabolic steroids, cocaine, synthetic cannabis (K2/spice), synthetic cathinones (bath salts), prescription medications, and over-the-counter cold

medicines. Due to the rising incidence of substance abuse, Nigeria established regulatory bodies such as the National Drug Law Enforcement Agency (NDLEA) and the National Agency for Food and Drug Administration and Control (NAFDAC). Despite their efforts to curb substance abuse, the problem persists, particularly in Kaduna State, where drug misuse is widespread across different age groups and demographics.

Problem Statement

Several factors contribute to the increasing prevalence of substance abuse. These include peer pressure, parental influence, broken homes, corruption, frustration, and poverty (Siro, 2008; Oluremi, 2012). Additional reasons include the pursuit of physical satisfaction, relaxation, pain relief, increased energy, enhanced sensory perception, sexual stimulation, psychological escape, mood regulation, peer acceptance, problem-solving, social change, avoidance of boredom, improved academic performance, and enhanced creativity (Adebimpe & Okeshola, 2018). The alarming effects of substance abuse in Kaduna State have drawn the attention of governmental and non-governmental organizations, scholars, educators, parents, and other stakeholders, all of whom are working to find effective strategies to mitigate the crisis.

Various researchers have examined the determinants of substance abuse across Nigeria, highlighting the gaps in knowledge regarding the issue. For instance, Umar, Lawal, Munir, Mahfuz, and Dalhatu (2017) employed descriptive statistical methods to investigate the determinants of substance abuse among commercial bus drivers in Kano Metropolis, Kano State. Their findings revealed that 81.1% of respondents admitted to engaging in substance abuse. Key motivators for drug use included the need to relax or sleep after a long day (84.8%), the desire to enhance work performance (48%), stress relief (81%), anxiety reduction (66.5%), and personal pleasure (72%). While insightful, this study focused solely on commercial drivers.

Michael (2021) applied inferential statistics to examine the determinants of substance abuse among individuals with mental health conditions in Ogun State, Nigeria. The results indicated significant associations between substance abuse and socio-demographic factors (such as gender, marital status, education level, employment status, and housing conditions), clinical variables (including schizophrenia, mood disorders, anxiety disorders, and delusions), as well as past experiences of violence and suicide attempts. However, this study was limited to individuals with mental health issues.

In another study, Awosika and Agbapuonwu (2023) assessed the determinants of substance abuse among high-risk drug users in universities across Ondo State. Using a descriptive case study approach, they found that family background and personal factors significantly influenced substance abuse, whereas school management had little to no impact. Their study concluded that university students' exposure to substance abuse was largely influenced by their home environment and peer associations. However, this study focused exclusively on university students, leaving out broader population segments.

Understanding public perceptions of the determinants of substance abuse is crucial for developing effective intervention strategies. Government agencies, non-governmental organizations, and community members can utilize this knowledge to formulate policies and programs aimed at reducing substance abuse among both men and women in Nigeria, particularly in Kaduna State. Despite the extensive research on substance abuse in Nigeria, studies that explore the determinants of substance abuse in Kaduna State from a public perspective remain limited. This gap in knowledge necessitates further investigation, which this study seeks to address. By examining public perceptions, the study aims to contribute valuable insights to the existing body of knowledge and inform strategies to combat substance abuse.

The specific objectives of this study are as follows:

1. To assess the level of knowledge about substance abuse in Kaduna State.
2. To examine the sources of information on substance abuse in the study area.
3. To identify the key determinants of substance abuse in Kaduna State.

The Study Area

Kaduna State is located between Latitudes 9^0 03'-11^0 32̍North of the equator and Longitudes $6^0$05'- $8^0$38'East of Greenwich meridian.

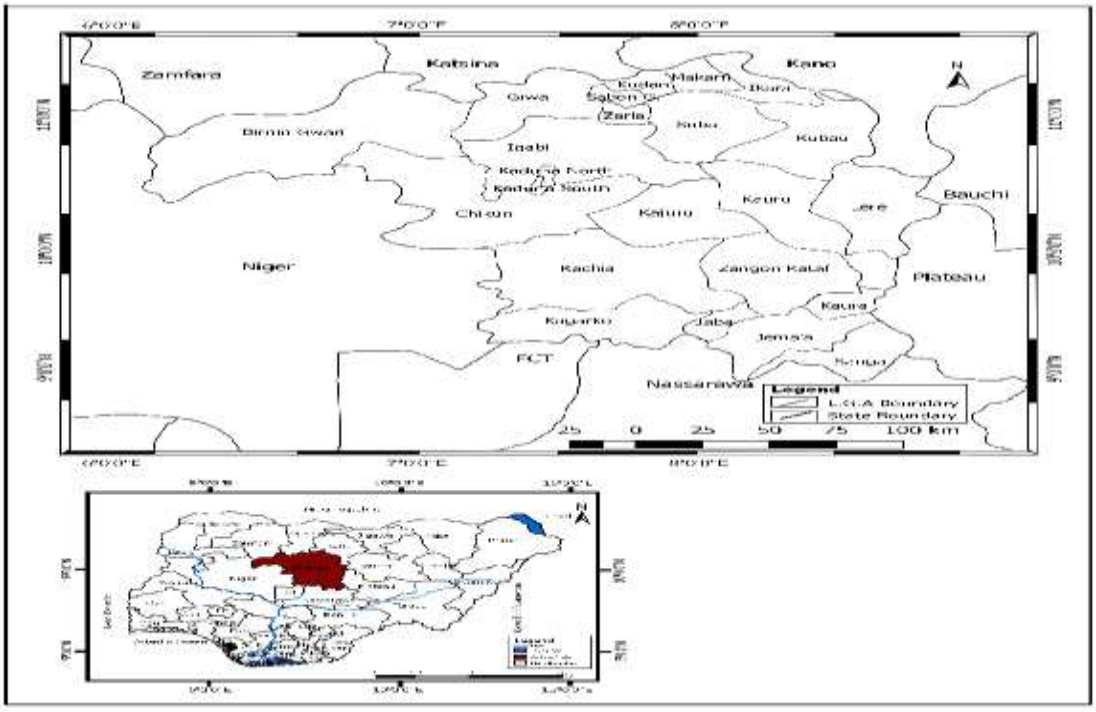

Figure 1: Map of Kaduna State Showing Local Government Area
Source: Modified from Administrative Map of Kaduna State (2016)

The state shares common border to the north by Katsina, Zamfara and Kano states, to the east by Bauchi state and to the south by Plateau and Nasarawa states and Federal Capital Territory, Abuja (Figure 2). The total land mass of the state is estimate at 46,053 square Kilometers, which is about 5% of the total land area of Nigeria (Kaduna State Development Plant{KSDP}, 2013). Kaduna state uniquely bordering three states to the north and Federal Capital Territory the south makes the flow of illicit substances within and through the state easy.

Materials and Methods

A multi-stage sampling technique was used for the study. In the first stage, the LGAs in the state were grouped into three senatorial zones of zone 1,2 and 3.

Table 1: Number of LGAs by senatorial zones and number of sample

Zones	2006 Pop	Projected Pop. 2019	Sample Population
Kaduna North			
Kudan	138, 954	211, 036	31
Zaria	604, 001	921, 222	138
Kaduna Central			
Igabi	430, 751	656, 984	98
Kajuru	109, 810	164, 482	24
Kaduna South			
Sanga	151, 486	112, 874	35
Zango kataf	318, 991	486, 525	73
Total	**6,217, 330**	**19,486,247**	**400**

Source: Field Survey, 2021

In the second stage, two Local Government Areas (LGAs) were selected based on population size one with the highest and one with the lowest population to ensure equal representation from each zone. These included Kudan, Igabi, Zaria, Kajuru, Sanga, and Zango Kataf. The selected LGAs, along with their projected 2006 population figures, are presented in Table 1. The sample size was determined using Yamane's (1967) formula, assuming a 95% confidence level and a 5% margin of error. Initially, 400 respondents were sampled, out of which 396 completed and returned the questionnaires. In the third stage, a systematic sampling technique was

employed to select wards from the six chosen LGAs. To ensure adequate representation, the wards in each LGA were arranged alphabetically, and every second ward in the sequence was selected, resulting in a total of 32 wards for the study. In the fourth stage, a convenience sampling method was used to select respondents from the chosen wards for questionnaire administration. Each household received one questionnaire to encourage broader participation, particularly in urban areas with multiple tenants. Data analysis was conducted using both descriptive and inferential statistical methods.

Results and Discussion

Demographic and socio-economic characteristics of respondents

Table 2 indicates that 66% of the respondents are male, while 34% are female. This suggests that more men participated in the study than their female counterparts. This finding aligns with survey data from the Federal Ministry of Health (FMOH, 2018), as well as studies by Adamson, Ogunsele, Morakinyo, and Akinhanni (2016) and Gureje et al. (2007), which reported that for every four substance abusers (SAs) in Nigeria, only one is female. In a male-dominated society like Kaduna State, this gender disparity may be partly attributed to sociocultural norms that stigmatize women who engage in such activities. As anticipated, the age distribution of nearly all sampled SAs (82.7%) falls between 15 and 49 years. This indicates that a significant proportion of the youth participated in the study compared to other age groups.

Table 2 Socio-economic characteristics of respondents

Sex	Frequency	Percentage
Male	262	66.3
Female	133	33.7
Age group (years)		
Less than 15	17	4.3
15-19	33	8.4
20-24	71	18.0
25-29	71	18.0
30-34	62	15.7
35-39	50	12.7
400-44	13	3.3
45 -49	26	6.6
50-54	18	4.8
55-59	19	4.6
60 and above	15	3.8
Occupation		
Farming	103	26.1
Civil service	69	17.5
Housewife	31	7.8
Student	46	11.6
Pettytrading/business	130	32.9
Unemployed	6	1.5
Artisan	10	2.6
Level of Education		
No formal education	71	17.9
Primary	47	11.9
Secondary	179	45.3
Post-secondary	98	24.8
Monthly income		
Less than- ₦30,000	138	34.9
₦30,000- ₦35,000	95	24.1
₦36,000- ₦40,000	62	15.7
₦41,000- ₦45,000	27	6.8
₦46,000- ₦50,000	24	6.1
₦51,000- ₦54,000	22	5.6
₦56,000- ₦59,000	14	3.5

₦60,000 and above	13	3.3

Source: Field Survey, 2021

This finding is consistent with previous research by Johnston et al. (2017), NACADA (2012), NDLEA (2015), and Shauri (2006), which similarly established that the majority of SAs are young people, implying that the most productive segment of the population is at risk of addiction. Additionally, the study found that older individuals also engage in substance abuse, as 9.9% of the respondents were aged 50 years and above.

Regarding occupational status, 32.9% of the respondents were involved in business or petty trading, followed by 26.1% in farming and 17.5% in civil service. The unemployed accounted for the smallest proportion, at 1.5%. This finding aligns with Abu's (2011) study, which reported that in Igabi LGA of Kaduna State, 27% of respondents were farmers, 17.7% were civil servants, and 12.2% were students. The type of occupation may influence the specific substances individuals abuse (UNODC, 2017). Regarding educational attainment, the results show that 45.3% of respondents had completed secondary education, while 24.8% had attained tertiary education. The lowest proportion was among those with only primary education (11.9%). Additionally, 17.9% of respondents had no formal education. This indicates that substance abuse (SA) is more prevalent among individuals with some level of formal education.

The high percentage of respondents with secondary education may be attributed to the introduction of Nigeria's 6-3-3 education system, which allows students to transition directly into junior secondary school with or without passing an examination (Abu, 2011). This variable was crucial in assessing the respondents' financial status, as income levels influence substance abuse in terms of both accessibility and affordability. Approximately 34.9% of respondents reported earning less than ₦30,000 per month, followed by 24.1% who earned between ₦30,000 and ₦35,000. The lowest income category, ₦41,000 to ₦45,000, accounted for just 3.3% of respondents. The high percentage of individuals with low income—below the national minimum wage—can be attributed to the fact that a majority (60.5%) were engaged in peasant farming, petty trading, and artisanal work as their primary means of livelihood.

Knowledge of substance abuse

Figure 2 illustrates respondents' awareness of substance abuse. The findings indicate that approximately 96.4% of the respondents have knowledge of substance abuse, while only 3.6% are unaware. This suggests that awareness of substance abuse is widespread among individuals in the study area.

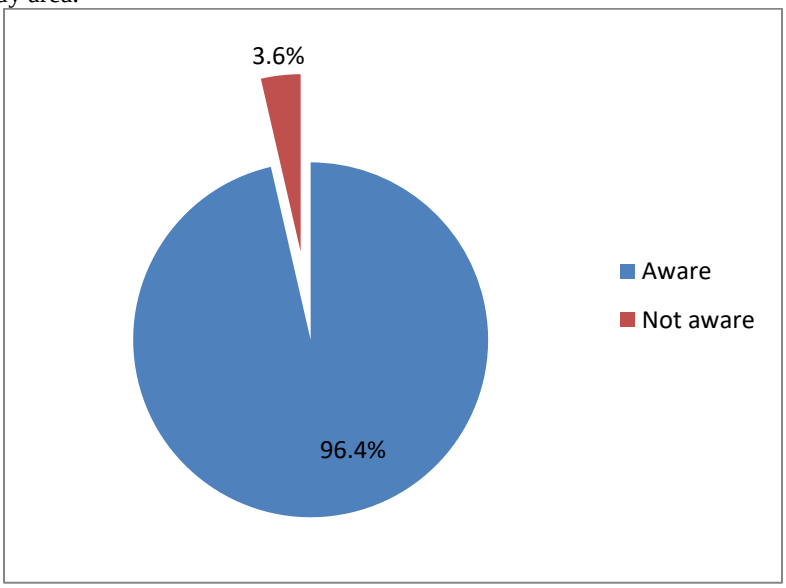

Figure 2: Awareness of Substance Abuse
Source: Field Survey, 2021

This finding aligns with previous research by Umukoro et al. (2021), Idowu et al. (2018), and Ohikoya & Alli (2006), which reported substance abuse awareness levels of 90.8%, 83.9%, and 86.5%, respectively. These studies similarly highlight that a significant proportion of people recognize the prevalence of substance abuse. However, this study's results contrast with the findings of Haruna et al., who reported that the majority of respondents in Gombe State were unaware of substance abuse. The high level of awareness

observed in this study could be attributed to various factors, including increased public health campaigns, media sensitization, educational programs, and firsthand exposure to substance abuse issues within the community. Additionally, urbanization and the influence of social interactions may have contributed to the widespread knowledge among respondents. In contrast, the lower awareness levels reported in Gombe State may stem from differences in educational attainment, access to information, and cultural influences that shape perceptions of substance abuse.

Sources of knowledge of substance abuse in the study

Table 3 highlights that the most common sources of knowledge about substance abuse (SA) are friends and peers (27.8%), followed by family members and relatives (21.8%) and neighbors (17.5%). The internet was identified as the least common source of information. This trend may be attributed to the strong influence of peer groups, families, and schools, which are widely recognized as the most powerful agents of socialization (Bandura, 1977).

Table 3: Sources of knowledge of substance abuse

Source	**Frequency**	Percentage
Friends/peers	110	27.8
Neighbour	69	17.5
Family/Relative	86	21.8
School	53	13.4
Stranger/visitor	18	4.6
Hospital	43	10.9
Internet	16	4.0
Total	**395**	**100.0**

Source: Field Survey, 2021

These findings align with research by Dishion and Owen (2003), which examined substance abuse in the United States and concluded that peer influence, particularly through deviant friendships during adolescence, significantly impacts substance use in adulthood. Similarly, Somani (2016) found that in Kenya, 75% of adolescents who consumed alcohol and abused other substances were introduced to the habit by their friends or schoolmates. Furthermore, Nyaoke (2013) demonstrated that parental drinking and smoking habits play a crucial role in shaping similar behaviors in their children. Supporting this, Olujide et al. (2015) documented that 49% of youths who abuse alcohol, cigarettes, and cannabis learned these behaviors from their parents and older siblings. These findings reinforce the idea that social relationships and family environments play a significant role in substance abuse initiation.

Determinants of substance Abuse in the study area

The variance of the extracted components from the Principal Component Analysis (PCA) on the determinants of substance abuse (SA) is presented in Table 4.

Table 4: Total Variance Explained by Factors Responsible for Substance Abuse

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.365	19.795	19.795	3.365	19.795	19.795
2	1.981	11.654	31.450	1.981	11.654	31.449
3	1.829	10.761	42.211	1.829	10.761	42.21
4	1.595	9.385	51.596	1.595	9.385	51.595
5	1.195	7.028	58.624	1.195	7.028	58.623
6	1.098	6.459	65.082	1.098	6.459	65.082
7	.864	5.080	70.162			
8	.771	4.538	74.700			
9	.716	4.209	78.909			
10	.606	3.564	82.472			
11	.517	3.041	85.514			
12	.489	2.879	88.393			
13	.463	2.721	91.113			
14	.426	2.503	93.616			
15	.408	2.399	96.016			
16	.368	2.163	98.178			
17	.310	1.822	100.000			

Extraction Method: Principal Component Analysis

Source: Author's Computation, 2021

The results indicate that the extracted components account for 65.082% of the total variance, with six components having eigenvalues greater than 1. Specifically, Component 1 has an eigenvalue of 3.365, explaining 19.8% of the total variance, while Component 2 has an eigenvalue of 1.981, contributing 11.7%. Component 3 has an eigenvalue of 1.829, accounting for 10.8%, Component 4 has an eigenvalue of 1.595, explaining 9.4%, Component 5 has an eigenvalue of 1.195, contributing 7%, and Component 6 has an eigenvalue of 1.098, accounting for 6.5%. The significance of these component loadings offers insights into the key determinants of substance abuse, categorized into six broad factors based on eigenvalues greater than 1. Table 5 presents the rotated component matrix, illustrating the factor loadings for each determinant of substance abuse.

Table 5: Rotated Component Matrix[a] of Factors Responsible for Substance Abuse

Factor	Component					
	1	2	3	4	5	6
To relax	.733*	.045	.113	.134	.070	-.069
Curiosity/imitation	.766*	-.052	.080	.063	-.151	.027
To be sociable	.773*	.148	-.049	.037	.141	.083
Peer pressure	.466	.115	-.026	.125	.599*	-.151
Experimentation	.026	.103	.061	.124	.832*	.127
Media advertisement	-.162	-.003	-.041	.080	.556*	.452
Parental/Sibling influence	-.024	-.028	-.007	.052	.297	.736*
To get Confidence	.066	.085	.077	-.002	-.089	.819*
Poverty	.076	-.100	.706*	.042	-.163	.290
Unemployment/underemployment	-.069	-.104	.850*	.033	.047	-.118
Affordability	.185	.381	.688*	-.040	.119	-.012
Availability	.148	.630*	.445	-.048	.192	-.049
Cope with stress/depression	.017	.837*	-.038	.130	.018	.046
Enhance performance	.050	.753*	-.125	.381	.051	.050
Cope with challenges	-.003	.270	.088	.705*	.142	.058
Keep awake	.043	.178	.017	.819*	.041	.003
Customs and traditions	.212	-.057	-.048	.661*	.066	.016

Extraction Method: Principal Component Analysis *Significant Loading
Source: Author's Computation, 2021

One of the major determinants (Component 1) includes relaxation, socialization, and curiosity/imitation. Agberotimi (2018) reported in a Focus Group Discussion (FGD) with students in Ogbomoso, Western Nigeria, that individuals engage in substance abuse primarily for relaxation and social interaction. This is corroborated by a study on adolescents in South Africa, where participants stated they used substances to be sociable, relax, and experience pleasure (Mohasoa, 2010). Similarly, Yunusa et al. (2016) found that 85% of commercial bus drivers in Kano metropolis, Nigeria, used substances for socialization and relaxation.

Substance abuse initiation often results in an intense sense of euphoria, motivating individuals to continue the behavior (Jatau et al., 2021). Research by Bawa (2015) in Sokoto town revealed that individuals engage in substance abuse to understand the effects of various substances. Similar studies by Mohasoa (2010) in South Africa show that curiosity and thrill-seeking play a significant role in substance use initiation. Peltzer and Ramlagan (2009) further assert that experimentation is a major driver of substance abuse among youths, particularly in environments where substances are easily accessible. Component 2, labeled as 'individual risk factors,' includes availability, coping with stress and depression, and performance enhancement. Studies suggest that the accessibility of substances significantly influences substance abuse patterns. For instance, in Nigeria, volatile solvent abuse is prevalent among certain occupational groups due to their proximity to such substances (Ebie & Pele, cited in William, 2007). Similarly, Ukwayi et al. (2019) observed that both legal and illegal substances are widely available in Nigeria due to its strategic location and porous borders. Other key determinants include economic stressors (Component 3), psychosocial factors (Component 4), peer influence and media exposure (Component 5), and self-confidence and parental influence (Component 6). These findings highlight the multifaceted nature of substance abuse, emphasizing the need for targeted intervention strategies addressing social, economic, and psychological risk factors.

Conclusion and Recommendations

The prevalence of substance abuse (SA) remains a significant challenge in Nigeria, particularly in Kaduna State. This study found that public awareness of SA is remarkably high in the study area, with information primarily obtained from friends/peers (28%) and family/relatives (22%).

Results from the Principal Component Analysis (PCA) categorized the perceived determinants of SA into six key factors: social risk factors (19.5%), individual risk factors (11.7%), economic risk factors (10.8%), psychological risk factors (9.4%), positive perceptions of advertisements and models (7.0%), and inadequate parental upbringing (6.0%), all with eigenvalues exceeding 1.

Based on these findings, the study recommends that law enforcement agencies treat substance abusers as individuals in need of medical assistance rather than as criminals. Additionally, the National Drug Law Enforcement Agency (NDLEA) should collaborate with faith-based organizations, including churches, mosques, non-governmental organizations, traditional institutions, and community-based groups, to conduct regular counseling sessions—especially for young people—to deter them from engaging in SA. To curb the rising trend of substance abuse, the Kaduna State government should enact legislation prohibiting the sale of tobacco products, alcoholic beverages, and certain prescription substances to minors, with a strong focus on prevention through early intervention.

References

Abu, I. J. (2011). *An assessment of the impact of primary health care delivery system in Igabi LGA of Kaduna State, Nigeria* (Unpublished M.Sc. thesis). Department of Geography, Ahmadu Bello University, Zaria.

Abdulmalik, J. O., Omigbodun, O. O., Beida, O., & Adedokun, B. (2009). Psychoactive substance use among children in informal religious schools in northern Nigeria. *Mental Health, Religion & Culture, 12*(6), 527-542.

Adamson, T. A., Ogunlesi, A. O., Morakinyo, O. I., & Akinhanni, A. (2016). Descriptive national survey of substance use in Nigeria. *Journal of Addiction Research and Therapy, 6*(3), 1-13.

Adebimpe, A. A., & Okeshola, F. B. (2018). Substance abuse among females in Nigeria. *International Journal of Business and Social Science, 9*(5), 99-105.

Agberotimi, S. F. (2018). Exploring factors influencing substance abuse among young people receiving treatment for substance use disorder in Ogbomoso, Nigeria. *Covenant International Journal of Psychology, 3*(2), 1-10.

Ajibola, I., Ayodele, O. A., Olumide, A., & Ogunlaja, A. O. (2018). Substance abuse among students in selected secondary schools of an urban community of Oyo State, South West Nigeria: Implication for policy action. *African Health Sciences, 18*(3), 776-785.

Akannam, T. (2008). North-West ranks highest in drug addiction. *Nigerian Drug Statistics by Zone.* Retrieved from http://www.nairaland.com/203955/Nigerian-drug-Statistics-Zone

Adamson, T. A., & Malono, I. O. (1991). Psychosocial profiles of some armed robbers in

Bende State, Nigeria. *Nigerian Medical Journal, 21*(2), 41-44.

Asare, J. (1999). *Alcohol and pleasure, a health perspective: Alcohol use, sales, and production in Ghana.* Brothers Publishers.

Atoyebi, O. A., & Atoyebi, O. E. (2013). Pattern of substance abuse among senior secondary school students in a Southwestern Nigerian city. *International Review of Social Sciences and Humanities, 4*(2), 54-56.

Awosika, E. O., & Agbapuonwu, N. E. (2023). Determinants of substance abuse among high abusers of drugs in Ondo State universities. *African Journal of Health, Nursing and Midwifery, 6*(1), 40-49.

Bah, Y. M. (2016). Drug abuse among street children. *Journal of Clinical Research in HIV/AIDS and Prevention, 3*(3), 12-45.

Basie, A. B., Idoko, L., Ogundeko, T. O., Ranyil, M. S. C., & Abisoye, O. A. (2016). Substance abuse and its prevalence among secondary school students in Kagoro, Kaduna State, Nigeria. *World Journal of Research and Review, 5*(1), 11-16.

Bawa, N. S. (2015). *Perception of youth on substance abuse in Sokoto, North West Nigeria* (M.Sc. thesis). Department of Nursing Science, University of Legon, Ghana.

Boys, A., Marden, J., & Strang, J. (2001). Understanding the reasons for drug use among young people: A functional perspective. *Health Education Research, 16*(4), 457-469.

Chalmers, J., & Ritter, A. (2012). The business cycle and drug use in Australia: Evidence from repeated cross-sections of individual-level data. *International Journal of Drug Policy, 22*, 342-352.

Davidson, G. C., Neale, J. M., & King, A. M. (2004). *Abnormal psychology* (9th ed.). John Wiley & Sons.

Degenhardt, L., Peacock, A., Colledge, S., Leung, J., & Crebilly, J. (2017). Global prevalence of IDU and sociodemographic characteristics and prevalence of HIV among people who inject drugs: A multi-staged review. *Lancet Global Health, 5*(12), 1192-1207.

Dishion, T. J., & Wen, L. D. (2003). A longitudinal analysis of friendship and substance use: Bidirectional influence from adolescence to adulthood. *Developmental Psychology, 38*(3), 258-270.

Gureje, O., Degenhardt, L., Olley, B., Uwakwe, R., & Udofia, O. (2007). A descriptive epidemiology of substance use disorders in Nigeria during the early 21st century. *Drug and Alcohol Dependence, 91*(1), 1-9.

Haddad, M. M. (2015). *Prevalence and pattern of psychoactive substance use among senior secondary school students in Dala LGA, Kano State, Nigeria* (M.Sc. thesis). Department of Health Science, University of Nigeria, Nsukka.

Haruna, M. O., Namadi, M. M., Dunkrah, B. I., Zamfara, M. I., & Dangiwa, A. L. (2018). Substance abuse among youths in Kashere town: A theoretical and empirical analysis. *International Journal of Development and Management Review (INJODEMAR, 13*(1), 192- 203.

Jatau, A. I., Shaaban, A., Gubua, K. A., Shittu, Z., & Garba, M. K. (2021). The burden of drug abuse in Nigeria: A scoping review of epidemiological studies and drug laws. *Health Review, 42*, 20-32.

Kaduna State Development Plan 2014-2018. (2013). *Ministry of Economic Planning, Kaduna State.* Retrieved from http://www.spacrnigeria.com/RC/1.1.9kadunadevelopment

National Institute on Drug Abuse (NIDA). (2016). *Abuse of prescription (Rx) drugs affects young adults most.* Retrieved from https://www.drugabuse.gov/related-topics/trends-statistics

National Population Commission. (2006). *National Census, Federal Republic of Nigeria.* Abuja: Official Gazette.

National Drug Law Enforcement Agency (NDLEA). (2015). *Drug data collection and research report.* Abuja, Nigeria.

Odejide, A. O. (2006). Status of substance abuse in Africa: A review. *International Journal of Mental Health and Addiction, 4*(2), 87-102.

Oluremi, F. D. (2012). Drug abuse among Nigerian adolescents: Strategies for counseling. *The Journal of International Social Research, 5*(20), 341-347.

World Health Organization (WHO). (2020). *Global status report on alcohol and health.* Geneva: WHO.