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Drug Abuse a Global Concern: Nigeria Community Survey a Logistic Regression Approach

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Abstract

Statistics from Nigeria has shown that the prevalence rate of drug abuse/drug addiction is at the highest peak in various communities. Reports from different studies have proven the damaging effect of drugs when abused on both individuals and the general society at large. Fewer research studies have explored the association between individual characteristics and abuse of drugs especially in rural areas in Nigeria. Therefore, this research study aims to explore the association between individual characteristics and drug abuse using primary data obtained through a survey questionnaire. The binary logistic regression and chi-square statistics were used to scrutinize and determine the extent of the relationship between variables, respectively. The study results showed that most of the drug addicts were male individuals with high school (SSCE) educational qualifications. Also, the employment status of individuals was found to be significantly associated with abuse of drugs (OR = 2.23, CI: 1.24 – 4.00) while age and gender were not significantly associated with abuse of drugs, respectively. The study concludes that unemployment or non-engagement of individuals in any meaningful business/work can lead to the abuse of drugs in the town.

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Keywords: Drugs abuse; Logistic regression; Nigeria community; Unemployment rate

INTRODUCTION

Drug abuse among individuals of different age groups is characterized by several risky behaviours that affect their psychological ability in the long-run. Drugs are substances that modify moods, perceptions, cognitions, behaviours and alters the general body functions either positively or negatively depending on the body composition and types of drug used (Balogun, 2006). According to the World Health Organization (WHO, 2006), drugs are substances when taken modifies one or more functions in any living organism. Hence, when these drugs are used to improve the health condition of any living being it is dubbed drug use. The National agency on food and drug administration and control (NAFDAC, 2004) as cited in Haladu (2003) described abuse of drugs as a persistent and excessive use of drugs without regard to culturally or medically accepted patterns. Also, Abdullahi (2009) viewed abuse of drugs as the administration of drugs to the point that it affects the physical structure, social function and health of a person. The World Drug Report by the United Nations office on drugs and crimes (UNODC, 2024) stated that the use of illicit drugs in all nations has increased in recent years. This report noted that the increasing availability of different varieties of drugs to an ever-widening socio-economic spectrum of customers is disconcerting. Nonetheless, the situation in Nigeria shows that the prevalence rate of drug abuse among the citizenry is high with a high probability that the frequency will continue to increase (Adeyemo, 2007). The National drug law enforcement agency report (NDLEA, 2024) showed that over 11% of individuals in the North-West geopolitical zone of Nigeria use drugs. Thus, drug abuse has become a national concern in Nigeria given its negative impacts on education, career developments, innovations and human resources in various communities in Nigeria.

Research studies like Oliha (2014) investigated the impact of gender-based adolescence drug abuse among university undergraduates on students' academic performance at the University of Benin, Nigeria. The survey randomly selected a sample of 200 students comprising 100 males and females from six departments in the University. The result from the student-t test analysis revealed that there was no significant difference

between the academic performance of adolescence drug abusers and non-drug abusers in the University. Onongha (2012) examined the influence of some factors on alcohol use and abuse among education-major students at Osun State University, Nigeria. One hundred and thirty-eight respondents were selected using a simple random sampling technique and the research data collected by the administration of questionnaires to the respondents. The multiple regression analysis results indicated that 34.8% of the student's alcohol use and abuse were explained by parental lifestyle and peer influence. It indicated that parents and peer groups had an enormous influence on the student's alcohol abuse given that they are seen as role models. Furthermore, authors like Atemi and Ondieki (2012), Nkereuwem et al. (2012), Adubisi et al. (2019), Merrill (2001), Ahmed et al. (2009), Cooper et al. (2005) and Evans-whipp et al. (2004) have carried-out various research studies on drug abuse and crimes. In this study, an analysis of the relationship between age, gender, employment status, and drug abuse status was performed. Specifically, the hypothesis that the odds of abusing drugs in individuals with jobs in Wukari town are lower compared to those individuals without any formal engagement is tested. This is the most comprehensive study of the relationship between employment status and drug abuse prevalence in Nigeria to date, and it is also the first to demonstrate the effect of employment status on drug abuse prevalence in a town setting.

METHODS

Study area

The study area, Wukari town is located in Wukari local government area (LGA) situated at, covering an area of in the southern part of Taraba State, Nigeria. Wukari town also houses the National drug law and enforcement agency (NDLEA) office which is charged with the responsibility of arresting offenders in the fight against drug abuse in Nigeria.

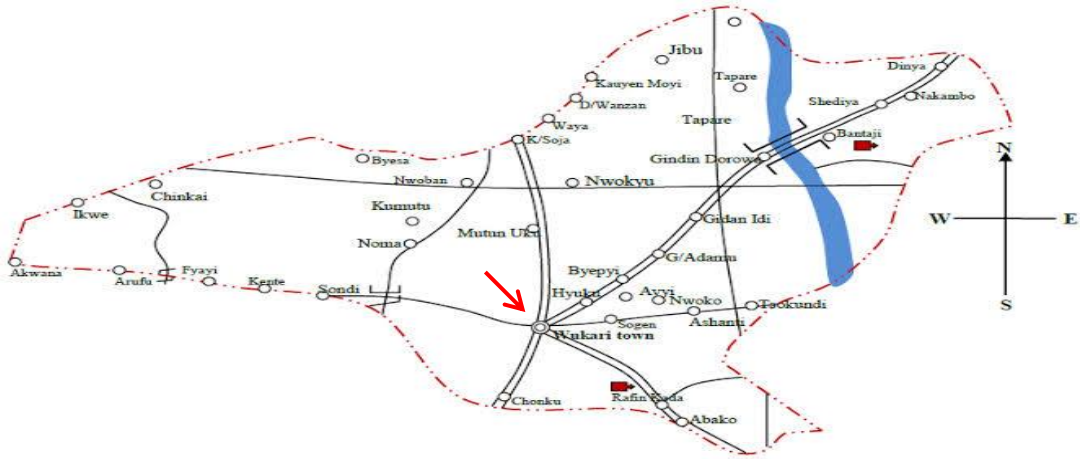


Figure 1: Map of Wukari Local Government Area showing sample location

Study design and data source

The instrument used in this study for the collection of the data is the research questionnaire. The questionnaire was administrated to randomly selected individuals in the sampled location (Wukari town) in Wukari LGA. The study population comprises individuals within the Wukari town which were randomly selected for this study. The random sampling technique was used to ensure that each individual willing to fill the questionnaire are captured including suspected drug abusers within the NDLEA premises in the Wukari town. A total number of 282 filled questionnaire which accounted for 70.5 percent of the total distributed questionnaires in the sampled location were retrieved at the end of the survey. The research questionnaire comprised two sections: firstly, the personal bio-data of the respondents and secondly, the relevant research questions sorted for in the survey.

Covariates

Information on the respondents' age, gender, marital status, employment status, and educational qualification was collected. For these covariates, age (in years) was treated as a continuous variable; gender was categorized into two groups (male versus female); employment status was treated as a dichotomized variable (yes/no). Educational qualification was classified into six groups (no education, primary, SSCE, NCE/ND, HND/B.Sc. or Others), following the Nigeria ministry of education definitions (Appendix

A). In this study, the sampled population was classified into two groups namely drug abusers and non-drug abusers. No missing values were observed for all the covariates in the survey.

Statistical analyses by individual drug abuse status

The data analysis in this study was carried out in three analytical levels: At the univariate level, the frequency distribution and graphical plots of each respondent's characteristics are presented. The bivariate analysis used the Pearson Chi-square test statistics to examine the relationship between the selected individuals' characteristics selected individuals' characteristics and the response variable. The binary logistic regression model using the odds ratio (ORs) and 95% confidence intervals was developed at the multivariate level to determine the extent of the association between age, gender, employment status, and drug abuse status. All analyses were conducted using SPSS Statistics version 26.0 (IBM Co., Armonk, NY, USA) and bar charts in EXCEL version 2019 (Microsoft, USA). $P < 0.05$ for each overall OR was considered statistically significant.

RESULTS

The frequency distribution of the respondent's basic characteristics is presented in Table 1. It can be reported that the majority of the respondents are males (79.4%). The distribution of the educational qualification of the respondents reveals that the majority had SSCE (38.3%) followed by respondents with only primary education (24.5%). The marital status distribution reveals that 71.5% of the respondents are single, 20.3% are married while about 3.2% are widows. Majority of the study respondents in the Wukari town are unemployed (67.4%).

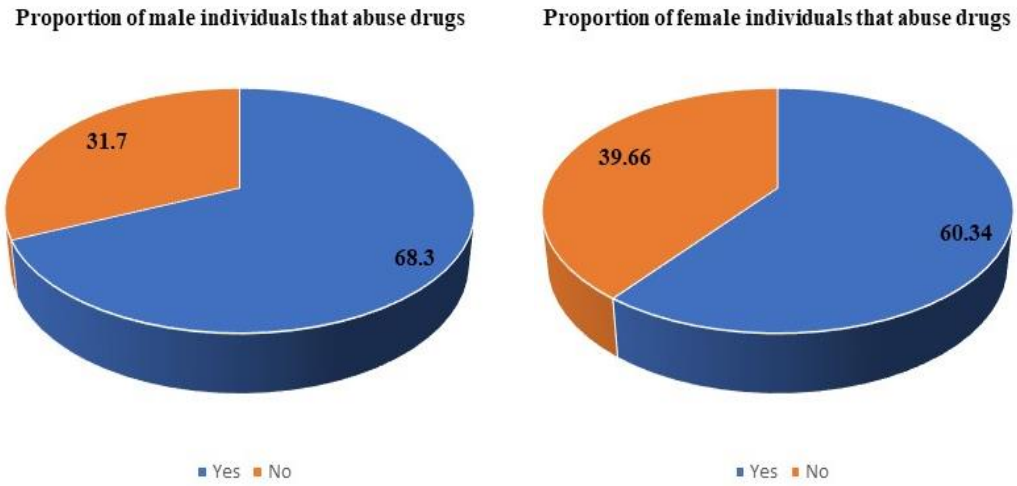


Figure 2: Drug addicts based on gender in Wukari Town.

The pie charts (Figure 1) reveal the proportion of drug addicts based on gender. The charts show that 68.3% of male individuals and 60.34% of female individuals abuse drugs in Wukari town, Wukari LGA-Taraba State, Nigeria.

Table 1: Characteristics of the respondents in Wukari town.

Variables	Frequency	Percentage
Gender		
Male	224	79.4
Female	58	20.6
Educational Qualification		
None	39	13.8
Primary	69	24.5
SSCE	108	38.3
NCE/ND	37	13.1
HND/B.SC	26	9.2
Others	3	1.1
Marital Status		
Single	201	71.5
Married	57	20.3
Divorce	10	3.6
Separated	4	1.7
Widow	9	3.2
Employment Status		
Yes	92	32.6

No	190	67.4
Resident with whom		
Father	45	16
Mother	45	16
Both parents	107	37.9
Grand-parents	14	5.0
Alone	54	19.1
Wife and kids	13	4.6
Others	4	1.4
Total	**282**	**100**

Drug addicts distribution by educational qualification and daily amount spent on drugs

Fig. 2 presents the proportion of drug addicts in Wukari town based on two variables in this study. In the survey, 41.5% of the drug addicts have high school (SSCE) educational qualification, primary (25.0%) and NCE/ND (14.4%) educational qualification, respectively (Fig. 2A). Additionally, Fig. 2B demonstrates that most drug addicts spend 50-100 Naira (34.8%), 110-200 Naira (18.4%) and above 600 Naira (16.7%) daily on drugs purchase.

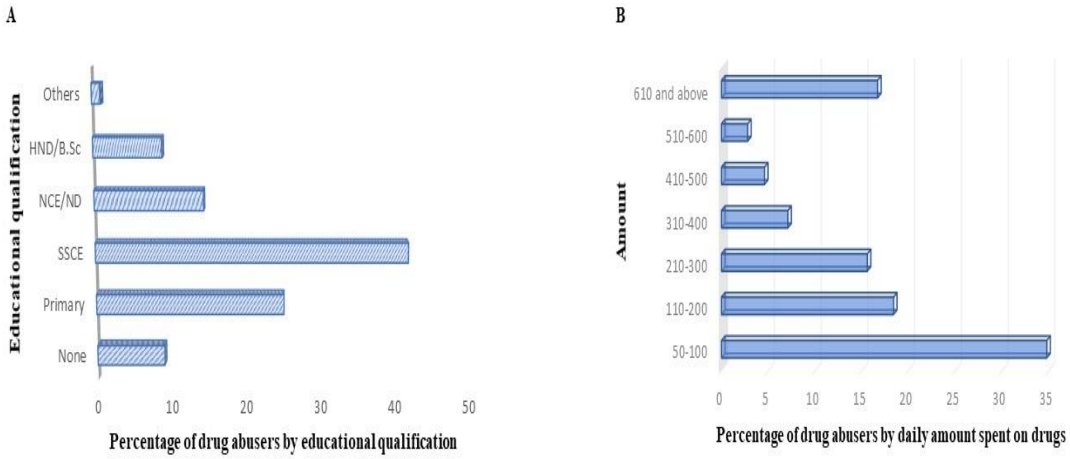


Figure 3: Proportion of individuals who abuse drugs. (A) Educational qualification, (B) amount spent on drugs

Means of exposure to drugs and reasons for abusing drugs

Fig. 3 presents the proportion of various channels through which individuals in Wukari town are likely to be exposed to drugs (Fig. 3, left). The survey showed that the means of exposure are likely through friends (49.3%), environment (28%) and family members (14.9%). Likewise, the reasons why individuals in Wukari town get involved with drugs to the point of becoming drug addicts are presented (Fig. 3, right). It was observed that peer pressure (19.9%), curiosity (17.8%) and to deal with school challenges (16.4%) were basic reasons most people abuse drugs in Wukari town.

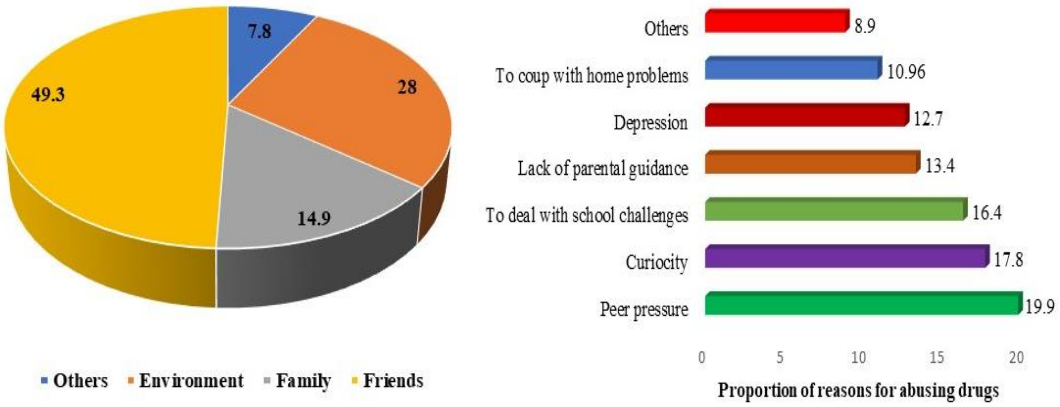


Figure 4: Proportion of individual responses in the survey. (Left) exposure channels (Right) reason for abusing drugs

Association between drug abuse prevalence and individual characteristics

The bivariate analysis presented in Table 2, revealed the association between selected individual characteristics (Independent variables) and drug abuse prevalence (Dependent variable). It was found that in Wukari town, the highest percentage of drug addicts are males (68.3%) while more than 61% of these drug addicts are not gainfully employed.

Table 2: Bivariate association of drug abuse problem and individual characteristics in Wukari town.

Variables	No (Does not abuse drugs)	Yes (Abuse drugs)
Gender		
Male	71 (31.7%)	153 (68.3%)
Female	23 (39.66%)	35 (60.34%)
$\chi^2 = 1.313, DF = 1, p > 0.05$		
Employment status		
No	73 (38.42%)	117 (61.58%)
Yes	21 (22.83%)	71 (77.17%)
$\chi^2 = 6.784, DF = 1, p < 0.05$		

The binary logistic regression (Table 3), presents the factors that determine the abuse of drugs among individuals in Wukari town. Age and gender were not significantly associated with prevalence of drug abuse (OR 0.98, 95% CI 0.94 – 1.02, P = 0.300) and (OR 1.41, 95% CI 0.76 – 2.58, P = 0.274), respectively. The employment status of individuals in Wukari town was found to be significantly associated with drug abuse prevalence (OR 2.23, 95% CI 1.24 – 4.00, P = 0.008) in Wukari town, Wukari LGA-Taraba state.

Table 3: Binary logistic regression of factors that determines the abuse of drugs among in Wukari town.

Variables	Odds Ratio	CI
Age		
16-50	1	
>50	0.98	0.94 - 1.02
Gender		
Female	1	
Male	1.41	0.76 - 2.58
Employment status		
Yes	1	
No	2.23**	1.24 - 4.00

** **p < 0.05.**

DISCUSSION

The study results has revealed that male individuals abused drugs more than the females in Wukari town and this supports other studies findings conducted over the years, where they found that abuse of drugs by male individuals in Nigeria is generally high (Nkereuwem, 2012). The finding also supports a study in India on substance abuse in male adolescents (Ahmed *et al.,* 2009). It is pertinent to note that the majority of the research studies reviewed in the literature considered only university students' characteristics but this present research study considered individuals characteristics in a town setting. It was found that individuals with high school educational qualifications abused drugs more than those individuals with other classes of qualifications while these drug addicts spend on the average 300 Naira on the purchase of drugs daily. This study also found that individuals get exposed to drugs majorly through friends, environment and family members while peer pressure, curiosity, and anxiety were the major reasons why people abuse drugs in Wukari town. This finding is similar to what was found in a study, where it was also stated that individuals got exposed to drugs majorly through friends and family members (Cooper *et al.,* 2005; Onongha, 2012). Similarly, a study in Iran also found that students staying with drug addicts followed suit as peer influence and availability increased drug use (Atemi and Ondieki, 2012).

Furthermore, this study also found that the drug abuse problem is not significantly associated with gender but significantly associated with the employment status of individuals in Wukari town. Also, this present study found that employment status is a significant predictor of drug abuse in individuals residing in Wukari town. Although gender and age were found to be non-significant predictors, it was found that there are more male drug addicts than female drug addicts. This finding finds support from the results of some studies which identified gender as a non-significant predictor in the abuse of drugs (Atemi and Ondieki, 2012; Oliha, 2014).

CONCLUSION

Drug abuse prevalence in Nigeria is at the highest index in sub-Saharan Africa, given that the region has the highest number of young individuals in Africa. A significant population of Nigeria communities is situated in environments that are predisposed to crimes, prostitution and unethical use of drugs. This explains why this research study set

out to examine the individual characteristics that can lead to the abuse of drugs/drug addiction in rural communities in Nigeria. This research study revealed that abuse of drugs is quite high in male individuals than in females and individuals are mostly exposed to drugs through friends and family members. Also, the abuse of drugs is mostly due to non-engagement of individuals (i.e. unemployment) in Wukari town especially those with high school (SSCE) educational qualification. Given the findings of this study, it is hereby recommended that individuals in Wukari town be educated on the dangers of abusing drugs through various interventions. Also, relevant opportunities should be made available to individuals within the community either in terms of office jobs or training in hand-crafting to keep their minds occupied.

REFERENCES

Haladu, A. (2003). Outreach strategies for curbing drug abuse among out-of-school youth in Nigeria: A challenge for community Based Organization (CBOS), in A. Garba (ed). Youth and drug abuse in Nigeria: Strategies for counselling, management and control. Kano: Matosa Press.

Ahmad, N. K. & Khan, Z. (2009). Analysis of Substance Abuse in Male Adolescents. Iran J Pediatr., 19(4), 399-403.

Adeyemo, D. A. (2007). Interpersonal Factors as Correlates of Alcohol Use among Secondary School Adolescents in Oyo State, Nigeria. The Anthropologist, 9(4), 321–326.

Onongha, G. I. (2012). The Influence of some Factors on Alcohol Use and Abuse among Education Students of Osun State University, Nigeria. International Journal of Humanities and Social Science. 2 (11), 276-283.

Atemi, G. O. & Ondieki, Z. M. (2012). The Preconditioning Factors to Drug Use and Abuse among Secondary School Adolescents in Kiamokma Division, Kisii County. Journal of Emerging Trends in Educational Research and Policy Studies, 3(4), 465-470.

Cooper, H., Friedman, S. R., Tempalski, B., Friedman, R. & Keem, M. (2005). Racial/Ethnic Disparities in Injection Drug Use in Large US Metropolitan Areas. Annals of Epidemiology, 15(5), 326–334.

Oliha, J. A. (2014). Adolescent and drug abuse in tertiary institution implication for counselling, British Journal of Education. 2(1), 1-9.

NAFDAC (2024). A handbook on Prevention of Drugs and Substance Abuse in Nigeria. National agency on food and drugs administration and control, Nigeria.

NDLEA (2023). National Drug Law Enforcement Agency, Annual Report, Nigeria.

Adubisi, O. D., Adubisi, C. E., David, I. J., Eleke, C. C. & Njoku, N. (2019). Multivariate test based on Hotelling's trace with application to crime rates. Scientific African, 6(2019), E00166.

Merrill, R. M., Salazar, R. D. & Gardner, N. W. (2001). Relationship between family religiosity and drug use behavior among youth. Social Behavior and Personality, 29(4), 347–357.

Balogun S. K. (2006). Chronic intake of separate and combined alcohol and nicotine on body maintenance among Albinorats, Journal of Human Ecology, 19(1), 21-24.

Evans-Whipp, T., Beyers, J. M., Lloyd, S., Lafazia, A. N., Toumbourou, J. W., Arthur, M. V. & Catalano, R. F. (2004). A review of school drug policies and their impact on youth substance use. Health Promotion International. 19(2), 227–234.

UNODC (2024). Global overview of drugs demand and supply. World Drug Report (2024).

Nkereuwem, W. E., Joseph, O. I., Taiwo, L. S., Dupe, M. L., Olufemi, J. B. & Solomon, A. (2012). Determinants of psychoactive substance use among incarcerated delinquents in Nigeria. African Journal of Drug & Alcohol Studies, 11(2), 117-127.

WHO (2006). A concept paper for effective international cooperation. Combating counterfeit drugs: Building Effective International Collaboration' International Conference. https://www.who.int/medicines/events/FINALBACKPAPER.pdf

Abdulahi, Z. (2009). Drug abuse among youths: Strategies for school counselling. The Nigerian Society of Educational Psychologists, 131-136.

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