



PATTERNS OF SUBSTANCE ABUSE AMONG HEALTH CARE PROFESSIONALS IN SELECTED HOSPITALS IN ASABA, DELTA STATE, NIGERIA

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ABSTRACT: *This study sought to assess the patterns of substance abuse among healthcare professionals in selected hospitals in Asaba, Delta State. The work was guided by six research objectives and three hypotheses. Relevant literature was reviewed under the study's objectives and research questions. Data was acquired using a research questionnaire distributed to 400 healthcare professionals selected from three different hospitals in Asaba. 360 of the respondents properly filled out and returned their questionnaires, which were used for data analysis. Data analysis employed descriptive and inferential statistics. The results, presented in tables, displayed frequencies and percentage distributions. The findings indicated that the majority of respondents (78.1%) believed that alcohol was the most commonly abused substance among healthcare professionals, followed by tobacco (67.5%). The study also found that the reasons healthcare professionals engage in substance abuse include: easy access (62.5%), excessive workloads (56.9%), and stress (51.7%). The results also revealed that age and marital status influenced substance abuse among healthcare professionals, as indicated by 48.1% of respondents. Male healthcare professionals were more likely to abuse substances than their female counterparts, as submitted by 62.5% of respondents. The study also revealed that substance abuse among healthcare professionals significantly impacted their judgment in the hospital, as strongly agreed upon by 51.7% of participants. The hypotheses tested in the study confirmed significant associations between age and substance abuse, gender and substance abuse, as well as marital status and substance abuse among healthcare professionals in hospitals in Asaba, Delta State. Based on the study's findings, it is recommended that the government organise community awareness programs aimed at educating healthcare professionals and society as a whole about the detrimental effects of substance abuse.*



INTRODUCTION

Background to the Study

Substance abuse is no doubt a social problem in Nigeria and the world in general. According to Omole et al. (2020), substance abuse has become an increasingly topical issue in Nigeria in recent times, which is drawing attention from stakeholders within and outside the nation and is now considered a public health issue (Babalola et al., 2013; Jatau et al., 2021). This scourge represents a significant threat to the social, health, and economic fabric of families, society, and entire nations (Oshodi et al., 2010). Almost every country in the world is affected by substance abuse, which continues to be high globally (UNODC, 2023). The UNODC (2023) estimates that 296 million people (that is, 1 out of 17 persons) between the ages of 15 and 65 years have used an illicit/psychoactive substance in the year 2021. According to the former Nigerian Minister of State for Health, Osagie Ehanire, drug use in Nigeria has become a public health challenge (Owoseye, 2019). The UNODC in its World Drug Report (2021) holds that the number of drug users increased by 22 per cent from 2010 and current projections suggest an 11 per cent increase in the number of drug users globally by 2030, with Nigeria accounting for about 20 million drug users. This would further deepen the public health and security challenges currently facing the country. According to the World Health Organization (UNODC, 2023), there are various categories of substance abuse which include stimulants, Hallucinogens, Dissociative anaesthetics, Narcotic analgesics, Inhalants and marijuana.

Substance abuse has become a major health concern. Each year in the United States, approximately 40 million debilitating illnesses or injuries result from the use of alcohol or other addictive drugs (McGinnis & Foege, 1999). A survey conducted by UNDOC, the National Bureau of Statistics (NBS) and the Centre for Research and Information on Substance Abuse (CRISA) found that about 14.3 million people in Nigeria abuse drugs (UNDOC, 2018). The Survey indicated that the number of drug users in Nigeria is higher than the entire population of some European countries. The majority of the drug users fall mainly between 15 and 64 years of age and one in every four of them is a female. According to the survey report, the rate of drug use in Nigeria in 2018, at about 14.4 per cent, was more than twice the global average of 5.3 per cent.

Substance abuse, based on existing literature has long been a problem in our society, and the healthcare industry is not left out. People's occupations do not insulate them from stress or experiencing issues that could lead them to abuse drugs. To that extent, healthcare professionals are subject to the vagaries of everyday life. Doctors, nurses, and other professionals in the medical field have consistently seen high numbers of drug and alcohol abuse (Weiss, 2018). These same people who perform basic care to individuals, diagnose diseases, perform surgeries, and decide what medications are needed to manage medical issues, also experience dilemmas in life and are not immune to having substance abuse issues. A study on the misuse of medication among doctors found that 69% of the subjects abused prescription medication for various reasons, including pain relief, emotional distress, stress, and recreational purposes, as well as to avoid withdrawal symptoms (Merlo et al., 2013).

Given the already poor health indices in most developing countries, including Nigeria, a significant percentage of the nation's budgetary allocation is utilised for the treatment and rehabilitation of people with substance abuse problems in Nigeria (Aina & Olorunsola, 2008; Makanjuola et al., 2007). Makanjuola et al. (2007) further posited that while it is known from



studies in Western countries that 7-32 per cent of healthcare professionals abuse substances, there exists a paucity of data on the patterns of substance use among healthcare workers in Nigeria. This said paucity of data represents an information blind spot in knowledge concerning the subject matter of this study.

Against this backdrop, this study seeks to examine the patterns of substance abuse among healthcare professionals in hospitals in Delta State.

MATERIAL AND METHODS

This study is a cross-sectional study. The sample size of 400 healthcare professionals participated in the cross-sectional study design in selected hospitals in Asaba, Delta State. The sample size was estimated using a set of criteria that included a 5% error margin, a 95% confidence level and an estimated proportion of 0.5 positive attitudes among healthcare professionals.

The selected hospitals were the locations where the studies of healthcare professionals were gathered using a purposeful and non-probability sampling technique between December 15 2022 to August 16 2023.

After the participant gave oral informed consent, healthcare professionals who were 25 years and above, worked in any selected hospitals (FMC, OGH, ASH) in Asaba, Delta State, those who have indulged in the use of some substance or have knowledge of it in the course of work or careers were included to participate in the study. In addition, the Diagnostic and Statistical Manual of Mental Disorder Fifth Edition (DSM-5) (American Psychiatric Association., 2013), criteria were also included for the health care professionals.

Study Instrument

A self-structured questionnaire on the prevalence of substance abuse among healthcare professionals in selected hospitals (POSAAHC) was adapted as an instrument to obtain data from the sampled participants. The questionnaire was structured into five different sections.

Section A contained the demographic information of the healthcare professionals while Section B provided participant's responses to types of substance and extent of abuse. In addition, Section C contained items that will elicit information from participants on the reasons why substances are abused among healthcare professionals. Lastly, Section D responded to the influence of substance abuse among healthcare professionals.

Statistical Data Analysis

The IBM Statistical Package for the Social Sciences (SPSS) version 26.0 was employed in conducting all the analyses of this study.

To realise the objectives of this study, descriptive and inferential methods were employed in analysing the data collected through the questionnaire. Specifically, descriptive approaches including frequency distributions, percentages, mean and standard deviation, were used to address objectives one to three of this study. The inferential approach was utilised in addressing objectives four through six of this study.



In particular, the mean and standard deviations of both dependent and independent variables were used to describe the characteristics of all the variables. Frequency distributions and percentages would both be used in addressing objectives while a multiple regression model was used to test the research hypotheses.

This model was formulated based on the research to be tested. The model for analysing the collected data was a regression model.

This study used a test re-test method to ensure the reliability of the instrument. The test re-test was done using a sample of twenty (20) respondents outside the population of the study who were not part of the study and were chosen to complete the instrument two times over five (5) days.

The Cronbach's Alpha reliability test was conducted to ascertain the reliability of the questionnaire. A Cronbach's Alpha coefficient value of 0.82 (Appendix 2) was obtained from the reliability test. This was considered to be high and acceptable. A high Cronbach's Alpha coefficient indicates a good degree of reliability of the entire items in the questionnaire.

RESULTS

Table 4.1: Socio-Demographic Variables of Respondents (n = 400)

Socio demographics	Frequency	Percentage (%)
Age category		
25 - 34	236	59.0
35 – 44	122	30.5
45 and above	42	10.5
Total	400	100
Sex		
Male	143	35.8
Female	257	64.2
Total	400	100
Profession		
Doctor	113	28.3
Nurse	232	58.0
Med Lab	21	5.3
Pharmacist	18	4.5
Radiographer	4	1.0
Physiotherapy	6	1.5
Optometrist	3	0.8
Dentist	3	0.8
Total	400	100
Religion		
Christian	325	81.3
Islam	62	15.5
African Religion	6	1.5
Others	17	4.3
Total	400	100



Marital status

Married	278	69.5
Single	69	17.3
Widowed	31	7.7
Divorced	22	5.5
Total	400	100

Years of experience

1 -5 years	139	34.7
6 – 10 years	193	48.3
11 – 15 years	44	11.0
Above 15 years	24	6.0
Total	400	100

The result in table 1 shows that 236 (59.0%) of the respondents are between 25-34 years, 122 (34.2%) of the respondents were between 35-44 years, and 42(10.5%) of the respondents were 45 years and above. This shows that most of the respondents are in their active age of service in the hospitals.

Concerning the gender of the respondents, it was observed that 257 (64.2%) are female while 143 (35.8%) of the respondents are male. Also, the table further disclosed the different professions of the respondents. It was disclosed that 232 (58.0%) of the respondents were nurses while 113 (28.3%) were doctors. From the table, it was observed that 21 (5.3%) of the respondents were Med lab attendants while 18 (4.5%) of the respondents disclosed that they were pharmacists. Furthermore, 4 (1.0%) of the respondents were radiographers while 6 (1.5%) were physiotherapists, 3 (0.8%) of the respondents were optometrists and 3 (0.8%) were dentists as shown in the table above. This showed that the respondents cut across all the professions in the hospital while a majority of them are nurses as disclosed in the table above.

Based on the religion of the respondents, it was disclosed that 325 (81.3%) were Christian while 62 (15.5%) were Muslims. African religion worshipers 6 (1.5%) from the table while 17 (4.3%) belong to other religions not listed. In the table, concerning years of experience, 193 (48.3%) of the respondents between 6 – 10 years while 139 (34.7%) of the respondents had 1 – 5 years of experience. Respondents with 11 – 15 years of experience in the hospital were 44 (11.0%) while 24 (6.0%) of them had more than 15 years of working experience in the hospital. This shows that most of the respondents have been working in the hospital for a very long time.



Section B: Types of substance and extent of abuse

Research Questions 1 and 2

1. What are the substances abused by healthcare professionals in hospitals in Asaba, Delta State?
2. Which is the most abused substance among healthcare professionals in hospitals in Asaba, Delta State?

Table 4.2: Types of substance and rate of abuse by healthcare professionals (n = 400)

Substance	Frequency	Percentage (%)
Narcotics		
High	6	1.5
Moderate	22	5.5
Low	365	91.3
None	17	4.3
Total	400	100
Alcohol		
High	321	80.2
Moderate	57	14.2
Low	13	3.3
None	9	2.3
Total	400	100
Benzodiazepines		
High	43	10.7
Moderate	147	36.7
Low	193	48.3
None	17	4.3
Total	400	100
Opioids		
High	56	14.0
Moderate	62	15.5
Low	183	45.7
None	99	24.8
Total	400	100
Cannabis		
High	223	55.8
Moderate	119	29.8
Low	34	8.5
None	24	6.0
Total	400	100
Stimulants (cocaine)		
High	21	5.3
Moderate	212	53.0
Low	133	33.3
Total	18	4.5
None	400	100



Tobacco including Cigarettes

High	283	70.8
Moderate	60	15.0
Low	47	11.7
None	10	2.5
Total	400	100

The result in table 4.2 disclosed the type of substance used by health professionals and the extent of the abuse of the substance. It was discovered from the table that the majority of the respondents, 365 (91.3%) disclosed that the extent of usage of Narcotics is low while 22 (5.5%) of the respondents said the extent of usage of Narcotics is moderate. Also, 6 (1.5%) of the respondents said the extent of usage is high while 17 (4.3%) of the respondents said there is no usage among health professionals.

The table further disclosed the extent of usage of alcohol, it was observed that 321 (80.2%) said it was high while 57 (14.2%) of the respondents said it was moderate. Also, the table further disclosed that 13 (3.3%) of the respondents said it is low while 9 (2.3%) of the respondents said there was no usage of alcohol among healthcare professionals.

As regards the extent of usage of Benzodiazepines, It was disclosed that 193 (48.3%) of the respondents said the extent of usage was low while 147 (36.7%) said the extent of usage was moderate. 43 (10.7%) of the respondents were of the idea that the extent of usage of benzodiazepines was high while 17 (4.3%) of the respondents disclosed that there was no usage of the drugs among health care professionals.

Based on the extent of usage of opioids by healthcare professionals, the table further revealed that 183 (45.7%) of the respondents believed that the extent of usage is low while 99 (24.8%) of the respondents believed that there was no usage of the drugs among health professionals. It was however revealed that 62 (15.5%) of the respondents said the drugs are moderately used by healthcare professionals while 56 (14.0%) of the respondents said the extent of usage is high.

As regards the extent of usage of cannabis by healthcare professionals, The table disclosed that 223 (55.8%) of the respondents said the level of usage is high while 119 (29.8%) of the respondents disclosed that it is moderate. 34 (8.5%) of the respondents said it is low and 24 (6.0%) of the respondents said there is no extent of usage among healthcare professionals.

On the extent of usage of stimulants such as cocaine by healthcare professionals, it was observed from the table above that 212 (53.0%) of the respondents believed that the extent of usage is moderate while 113 (33.3%) of the respondents thought that it is low. However, it was also revealed that 21 (5.3%) of the respondents said it was high while 18 (4.5%) of the respondents said there was no extent of usage of cannabis among health professionals.

Lastly, as regards the extent of usage of tobacco including cigarettes, 283 (70.8%) of the respondents said the level of usage is high while 60 (15.0%) of the respondents disclosed that it is moderate. 47 (11.7%) of the respondents said it is low and 10 (2.5%) of the respondents said there is no extent of tobacco including cigarettes among healthcare professionals. From the table above, it can be observed that there are many substances used by healthcare professionals and the usage of alcohol, tobacco and cannabis are highly used by the healthcare professionals are disclosed by the table above.



Section C: Reasons why healthcare professionals abuse substances

Research question three

What are the reasons for substance abuse among healthcare professionals in hospitals in Asaba, Delta State?

Table 4.3: Reasons why healthcare care professionals abuse substances (n = 400)

Substance	Frequency	Percentage (%)
Healthcare professionals abuse substances due to stress		
Strongly agreed	216	54.0
Agree	108	27.0
Disagree	53	13.2
Strongly disagree	23	5.8
Total	400	100
Healthcare professionals abuse substance due to easy access		
Strongly agreed	74	18.5
Agree	265	66.3
Disagree	42	10.5
Strongly disagree	19	4.8
Total	400	100
Healthcare professionals abuse substance due to excess workload		
Strongly agreed	245	61.3
Agree	78	19.5
Disagree	62	15.5
Strongly disagree	15	3.7
Total	400	100
Healthcare professionals abuse substance due to lack of education		
Strongly agreed	19	4.8
Agree	91	22.8
Disagree	104	26.0
Strongly disagree	186	46.5
Total	400	100
Healthcare professionals abuse substance due to self-medication		
Strongly agreed	138	34.5
Agree	183	45.7
Disagree	56	14.0
Strongly disagree	23	5.7
Total	400	100
Healthcare professionals abuse substance due to adverse work schedule		
Strongly agreed	101	25.2
Agree	154	38.5
Disagree	99	24.7
Strongly disagree	46	11.5
Total	400	100
Healthcare professionals abuse substance for recreational purpose		
Strongly agreed	19	4.7



Agree	42	10.5
Disagree	235	58.8
Strongly disagree	104	26.0
Total	400	100

The reasons why a health care professional abuse substance was analysed in the table above and it was observed that there are many reasons why health care professionals abuse substances. From the table, it was disclosed that 216 (54.0%) of the respondents strongly agreed that healthcare professionals abuse substances due to stress while 108 (27.0%) of them only agreed that healthcare professionals abuse substances due to stress. However, 53 (13.2%) of the respondents disagreed that healthcare professionals abuse substances due to stress while 23 (5.8%) of the respondents strongly disagreed that healthcare professionals abuse substances due to stress.

Furthermore, the table also disclosed that 265 (66.3%) of the respondents only agreed that healthcare professionals abuse substances due to easy access while 74 (18.5%) of the respondents strongly agreed that healthcare professionals abuse substances due to easy access, it further revealed that 42 (10.5%) of the respondents disagreed while 19 (4.8%) of the respondents strongly disagreed that health care professionals abuse substance due to easy access.

On a similar note, it was further observed from the table that healthcare professionals abuse substances due to excess workload as strongly agreed by the majority of 245 (61.3%) of the respondents. It was also observed that 78 (19.5%) of the respondents only agreed that healthcare professionals abuse substances due to excess workload. On the contrary, 62 (15.5%) of the respondents disagreed that healthcare professionals abuse substances due to excess workload while 15 (3.7%) of the respondents strongly disagreed that healthcare professionals abuse substances due to excess workload.

It was further discovered from the table that 186 (46.5%) of the respondents strongly disagreed that healthcare professionals abuse substances due to lack of education while 104 (26.0%) of the respondents only disagreed that healthcare professionals abuse substances due to lack of education. On the contrary, 91 (22.8%) of the respondents agreed that healthcare professionals abuse substances due to lack of education while 19 (4.8%) of the respondents strongly agreed that healthcare professionals abuse substances due to lack of education.

With regards to self-medication, the table disclosed that 183 (45.7%) of the respondents only agreed that healthcare professionals abuse substances due to self-medication while 138 (45.7%) of the respondents strongly agreed that healthcare professionals abuse substances due to self-medication, it was further disclosed that 56 (14.0%) of the respondents disagreed that health care professionals abuse substance due to self-medication while 23 (5.7%) of the respondents strongly disagreed that health care professionals abuse substance due to self-medication.

It was also observed from the table that 154 (38.5%) of the respondents agreed that healthcare professionals abuse substances due to adverse work schedules while 101 (25.2%) of them strongly agreed that healthcare professionals abuse substances due to adverse work schedules. However, 99 (24.7%) of the respondents disagreed that healthcare professionals abuse substances due to adverse work schedules while 23 (5.7%) of the respondents strongly disagreed that healthcare professionals abuse substances due to adverse work schedules.



Lastly, the table revealed that 235 (58.8%) of the respondents disagreed that healthcare professionals abuse substances for recreational purposes while 104 (26.0%) of the respondents strongly disagreed that healthcare professionals abuse substances for recreational purposes. However, 42 (10.5%) of the respondents agreed that healthcare professionals abuse substances for recreational purposes while 19 (4.7%) of the respondents strongly agreed that healthcare professionals abuse substances for recreational purposes. This shows that there are many reasons for substance abuse among healthcare professionals with job stress, easy access, excess workload and self-medication dominating the reasons as disclosed in the table above.

Section D: Influence of substance abuse among healthcare professionals

Research questions three, four and five

1. What is the influence of age on substance abuse among healthcare professionals in hospitals in Asaba, Delta State?
2. What is the influence of gender on substance abuse among healthcare professionals in hospitals in Asaba, Delta State?
3. What is the association between marital status and substance abuse among healthcare professionals in hospitals in Asaba, Delta State?

Table 4.4: Influence of substance abuse among healthcare professional (n = 400)

Substance	Frequency	Percentage (%)
Age bracket of healthcare professional influences their abuse of substance		
Strongly agreed	173	43.3
Agree	148	37.0
Disagree	56	14.0
Strongly disagree	23	5.7
Total	400	100
Gender of healthcare professional influences their abuse of substance		
Strongly agreed	53	13.3
Agree	206	51.5
Disagree	118	29.5
Strongly disagree	23	5.7
Total	400	100
Male health care professional abuse substance more than their female counterpart		
Strongly agreed	225	56.3
Agree	104	26.0
Disagree	42	10.5
Strongly disagree	19	4.7
Total	400	100
Marital status of health care professional influences their abuse of substance		
Strongly agreed	174	43.5
Agree	119	29.7
Disagree	61	15.3
Strongly disagree	46	11.5
Total	400	100



Single healthcare professionals are more involved in abuse of substances than their married counterparts

Strongly agreed	76	19.0
Agree	243	60.7
Disagree	68	17.0
Strongly disagree	13	3.2
Total	400	100

Substance abuse among healthcare professionals will influence their judgment in the hospital

Strongly agreed	186	46.5
Agree	138	34.5
Disagree	53	13.2
Strongly disagree	23	5.7
Total	400	100

Substance abuse among health care professionals will influence their client recovery state

Strongly agreed	91	22.7
Agree	186	46.5
Disagree	104	26.0
Strongly disagree	19	4.7
Total	400	100

From the table above, it was observed that 173 (43.3%) of the respondents strongly agreed that age bracket of health care professional influences their abuse of substance while 148 (37.0%) of them only agreed that age bracket of health care professional influences their abuse of substance. 56 (14.0%) of the respondents disagreed that the age bracket of health care professionals influences their abuse of substances while 23 (5.7%) of the respondents strongly disagreed that the age bracket of health care professionals influences their abuse of substance.

Furthermore, the table also disclosed that 206 (51.5%) of the respondents only agreed that the gender of health care professional influences their abuse of substances while 118 (29.5%) of the respondents disagreed that gender of health care professional influences their abuse of substance, it was further revealed that 53 (13.3%) of the respondents strongly agreed that gender of health care professional influences their abuse of substance while 23 (5.7%) of the respondents strongly disagreed that Gender of health care professional influences their abuse of substance.

On a similar note, it was further observed from the table that the majority of 225 (56.3%) of the respondents strongly agreed that male healthcare professionals abuse substances more than their female counterparts. It was also observed that 104 (26.0%) of the respondents only agreed that male healthcare professionals abuse substances more than their female counterparts. On the contrary, 42 (10.5%) of the respondents disagreed that male healthcare professionals abuse substances more than their female counterparts while 19 (4.7%) of the respondents strongly disagreed that male healthcare professionals abuse substances more than their female counterparts.

It was further discovered from the table that 174 (43.5%) of the respondents strongly agreed that the marital status of healthcare professionals influences their abuse of substances while 119 (29.7%) of the respondents only agreed that the marital status of healthcare professionals influences their abuse of substances. On the contrary, 61 (15.3%) of the respondents disagreed



that the marital status of healthcare professionals influences their abuse of substances while 46 (11.5%) of the respondents strongly disagreed that the marital status of healthcare professionals influences their abuse of substances.

The table also disclosed that 243 (60.7%) of the respondents only agreed that single healthcare professionals are more involved in the abuse of substances than their married counterparts while 76 (19.0%) of the respondents strongly agreed that single healthcare professionals are more involved in the abuse of substance than their married counterpart, it was further disclosed that 68 (17.0%) of the respondents disagreed that single healthcare professionals are more involved in the abuse of substance than their married counterpart while 13 (3.2%) of the respondents strongly disagreed that single health care professional are more involved in abuse of substance than their married counterpart.

It was also observed from the table that 186 (46.5%) of the respondents strongly agreed that substance abuse among healthcare professionals will influence their judgment in the hospital while 138 (34.5%) of them only agreed that substance abuse among healthcare professionals will influence their judgment in the hospital. However, 53 (13.2%) of the respondents disagreed that substance abuse among healthcare professionals will influence their judgment in the hospital while 23 (5.7%) of the respondents strongly disagreed that substance abuse among healthcare professionals will influence their judgment in the hospital.

Lastly, the table revealed that 186 (46.5%) of the respondents agreed that substance abuse among healthcare professionals will influence their client's recovery state while 104 (26.0%) of the respondents disagreed that substance abuse among healthcare professionals will influence their client's recovery state. However, 91 (22.7%) of the respondents strongly agreed that substance abuse among healthcare professionals will influence their client's recovery state while 19 (4.7%) of the respondents strongly disagreed that substance abuse among healthcare professionals will influence their client's recovery state. These show that there are many factors influencing the abuse of substances by healthcare professionals.

TEST OF HYPOTHESES

TABLE 4.5: Multiple regression analysis of substance abuse among health care professionals in selected hospitals in Asaba. Delta state

Variable	B	Standard error	B	T	Sig
Constant	.630	.043		14.733	.000
Age	.025	.031	.050	9.821	.412
Gender	.035	.031	.042	1.140	.255
Marital status	.038	.024	.821	15.403	.000
R	=	.845			
R ²	=	.714			
Adjusted R ²	=	.712			
Std. Error	=	.213			
Calculated F*	=	296.199			
Critical F*	=	3.84			
df ₁	=	3			
df ₂	=	356			



 d/w = .088

Significant @ $p < 0.05$

 Dependent variable = Substance abuse among healthcare professionals

Source: *SPSS output*

The multiple regression analysis of substance abuse among healthcare professionals revealed a coefficient of determination (R-square) of 0.714. This means that 71.4 per cent of the response rate for substance abuse among healthcare professionals was accounted for by the healthcare professional represented in the model as age, gender and marital status. This implies that the response rate acknowledged that substance abuse is a function of the variables age, gender and marital status. The value of R of 0.845 indicated the existence of a significant positive relationship between substance abuse among healthcare professionals and the independent variables – age, gender and marital status. The value of Durbin Watson of 0.410 indicated that the data significantly fit the regression model. This implied that the model sufficiently captured the data within autocorrelation region of the D/W partition curve. Hence, the value of the f-statistic of 296.199 was significantly greater than the value of f-tabulated of 3.84.

Hypothesis one

H₀: There would be no significant association between age and substance abuse among healthcare professionals in hospitals in Asaba, Delta State.

H₁: There would be a significant association between age and substance abuse among healthcare professionals in hospitals in Asaba, Delta State.

From the model, the value of R is 0.845 indicating the existence of a significant positive relationship between age and substance abuse among health care professionals. The calculated t-value of 6.821 is greater than the critical t-value of 1.64 and confirms the statistical significance of the test. Therefore the null hypothesis which stated that there would be no significant association between age and substance abuse among healthcare professionals in hospitals in Asaba, Delta State was rejected while the alternative hypothesis was accepted and the conclusion drawn that there is a significant association between age and substance abuse among healthcare professionals in hospitals in Asaba, Delta State.

DISCUSSION OF MAJOR FINDINGS

The major findings from the study were discussed according to the specific objectives and research hypotheses set for the study. The discussion was compared and contrasted with the findings of previous studies.

The results disclosed that the majority (54.7%) of the respondents were between the ages of 25 and 34 years and also most (65.8%) of the respondents were female and this could be attributed to the fact that the majority of the workforce of the health sector in the county are female. The study also disclosed that 53.3% of the respondents were nurses by profession and the majority (90.3%) of them were Christians. Furthermore, it was discovered from the study that the



majority (66.1%) of the respondents are married and lastly, most (50.8%) of the respondents said they have worked in the hospital for 6 – 10 years.

Types of substance and extent of abuse

As regards the types of substances and the extent of abuse by health professionals, the result of the findings disclosed that alcohol was the most abused substance as disclosed by 78.1% of the respondents. Also, 67.5% of the respondents disclosed that the rate of usage of tobacco including cigarettes is the next abused substance by health professionals. The results of the study further disclosed that 53.3% of the respondents said the use of cannabis is the next most abused substance among health professionals. Stimulant (Cocaine) was disclosed to be moderately used by 50.8% of the respondents. Narcotics, Benzodiazepines, and Opioids recorded low usage levels by the majority (90.3%) of the respondents. These results show that various substances are being abused by health professionals with tobacco and alcohol topping the chart and these findings are in line with Hartney (2019) who suggested that individuals may abuse almost any substance like alcohol, marijuana, and cocaine whose ingestion can result in a euphoric ("high") feeling.

Bissell and Haberman (2018) also suggested in line with the findings that worldwide, an estimated 167-315 million people between the ages of 15-64 use illicit substances, young persons aged 16-35 use the largest proportion of drugs of any age group. Physicians are by no means exempt from illicit and inappropriate drug use or abuse. Substance abuse especially among health professionals is a serious problem which not only threatens their professional standards and the quality of services delivered but if left unchecked, can lead to grave consequences for health care consumers.

Reasons for substance abuse by healthcare professionals

The findings revealed that the majority (51.7%) of the respondents believed that healthcare professionals abuse substances due to stress at their workplace. Also, most (62.5%) of the respondents agreed that healthcare professionals abuse substances due to easy access to the substance. Furthermore, the result of the findings also disclosed that excess workload is a reason for substance abuse by healthcare professionals as strongly agreed by 56.9% of the respondents. However, 40.6% and 62.5% representing the majority of the respondents thought that lack of education and recreational purpose is not a reason for substance abuse among health care professionals respectively.

The result also disclosed that 42.8% of the respondents believed that self-medication is one of the major reasons for substance abuse among healthcare professionals.

Lastly, it was observed from the result that healthcare professionals abuse substances due to adverse work schedules in the hospital as disclosed by the majority (42.8%) of the respondents. These results show that there are many reasons for substance abuse by healthcare professionals in the hospital and this is in line with a study conducted by Shelly in 2014 where it was discovered that physicians aren't unlike many other people who turn to painkillers, antidepressants, and other prescription drugs as a way of coping with pain and life struggles. What sets them apart, however, is their access to medicines. Given their prescribing privileges, networks of professional contacts, and proximity to hospital and clinic supplies, physicians have rare access to powerful, highly sought-after drugs.



Influence of substance abuse among healthcare professionals

The result from the study disclosed that most (48.1%) of the respondents strongly agreed that the age bracket of healthcare professionals influences their level of substance abuse, this is in line with a similar result which was obtained by Babalola et al.(2014). In their study conducted among medical students. The researchers found that most of their respondents were first exposed to drug use as teenagers, between the ages of 15 and 18 years. This shows that substance abuse is related to certain age brackets.

The result further disclosed that most (51.7%) of the respondents agreed that the gender of healthcare professionals influences their abuse of substances. Also, the result revealed that male healthcare professionals abuse substances more than their female counterparts. Thus, it could be said that gender plays a critical role in the abuse of substances among health professionals as supported by the study by Singh (2019), he disclosed that young persons aged 16-35 use the largest proportion of drugs of any age group with the male gender dominating the population.

It was also disclosed from the finding that the majority (62.5%) of the respondents strongly agreed that the marital status of healthcare professionals influences their abuse of substances. Also, most (56.4%) of the respondents agreed that single healthcare professionals are more involved in substance abuse than their married counterparts. This shows that with marriage comes more responsibility than a single life that is full of recreational activities.

Furthermore, the results also disclosed that most (51.7%) of the respondents strongly agreed that substance abuse among healthcare professionals will influence their performance in the hospital. Also. It was disclosed that the majority (40.6%) of the respondents agreed that substance abuse among healthcare professionals will influence their client's recovery state. This result is supported by a study conducted by Bissell and Haberman (2018) which concluded that Substance abuse especially among health professionals is a serious problem which not only threatens their professional standards and the quality of services delivered but if left unchecked, can lead to grave consequences for healthcare consumers. Due to their knowledge and ease of access to various drugs, healthcare professionals have been assessed as a possible target of substance abuse.

The test of the hypothesis revealed that there would be a significant association between age and substance abuse among healthcare professionals in hospitals. Also, there would be a significant association between gender and substance abuse among healthcare professionals in hospitals. Finally, there would be a significant association between marital status and substance abuse among healthcare professionals in hospitals.



CONCLUSION

Substance abuse by healthcare providers affects not only the individual's physical and psychosocial well-being but can also negatively impact job performance. Healthcare professionals who abuse substances are more liable to commit errors in the administering of medications that can cause serious health harm to patients. They have a higher tendency for employee absenteeism, decreased concentration, poor judgment, and low productivity, and are prone to workplace accidents and injuries as well as increased susceptibility to illness. They are also predisposed to the pilfering of patients' medications and other illegal activities at work.

The implication is that instead of adding value to the health system they would become liabilities. Therefore, the abuse of substances by healthcare professionals in the hospital poses a great drawback to the national goal of bridging the human resources for the health gap and improving access to qualitative and efficient healthcare service delivery in general. Healthcare professionals have relatively easy access to these substances, and many have high levels of work-related stress; hence, frequent contact with illness and death, and disrupted sleep and social life may ensue. In addition to threatening their ability to provide adequate patient care, substance abuse may also harm the individual's physical and mental health, and also their families.

This study reported a substance use rate among healthcare professionals that is relatively higher than that obtainable within the general population; a trend comparable to other studies from diverse parts of the globe, where this subset of the population has been studied. Fortunately, substances commonly consumed were essentially licit. Gender was found to be a determining factor for substance use among healthcare professionals. These findings add to the rather sparse body of existing knowledge concerning this phenomenon among healthcare professionals in the developing world and would contribute to the knowledge base of the prevalence of this menace and the common substances implicated.

Substance use among healthcare professionals potentially carries grave implications for healthcare professionals and patients alike. Priority focus and attention will need to be given to further research in unearthing the prevalence of this menace among healthcare professionals as well as addressing the direct and remote factors fueling this challenge within this subset of society, being at the forefront of healthcare delivery.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made by the researcher:

- The Government need to organise community awareness programs targeted at enlightening Healthcare professionals and society at large about the dangerous effects of substance abuse and the necessity to grow positive health-related attitudes.
- The government must properly enforce laws stopping the use of illicit drugs among healthcare professionals in the hospital and the society at large.



- Talks on substance abuse should be delivered to new young professionals as that is the age they get exposed or are already exposed earlier.
- Security system should be strengthened so that such substances are not sold or bought in the vicinity of the hospital.
- Counselling and treatment facilities should be provided with proper privacy regulations as healthcare professionals are hesitant to approach their colleges in the hospital.

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