

Abuse of Alcohol and other Psychoactive Substances among Health Care Workers in a Nigerian Tertiary Hospital

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ABSTRACT

Background: In Ilorin, there is no documented study on alcohol and other drugs use among health workers.

Aim: To determine prevalence, types and risk of psychoactive substance use among health workers in University of Ilorin Teaching Hospital and offer immediate ASSIST-linked post interview brief intervention.

Method: We interviewed 308 respondents using a sociodemographic data collection sheet and the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST version 3.1).

Results: Current use of alcohol was 5.5%, opioid 2.3% and tobacco 1.9%. All users of tobacco and opioid were 'high risk' users, 41% of alcohol users were moderate risk users while the remaining 59% were 'low risk' alcohol users.

Conclusion: In spite of the relatively low level of substance use, there is a need for continued education and regulation of psychoactive drugs use within the hospital. Non punitive measures should be instituted to encourage users to freely seek evidence-based treatment and support.

Key words: Substance use; Risk level; Health workers; Ilorin

INTRODUCTION

Substance use/misuse and its sequelae constitute an important cross-cutting issue in the medical, social, psychological, and economic aspects of any society. Consequently, the entire citizenry of

a nation must be involved in every effort to continuously reduce its impact and if possible eradicate it. This is more relevant if we realize that while health workers are important in assisting citizens in abstaining from substance abuse, their role may be compromised if they are also abusing substances (Okeke et al, 2012)

Across the globe, studies have examined the prevalence of substance abuse among health workers with rates of smoking varying from 3% in UK, 3% in Nigeria (Okeke et al, 2012), 65% in Jordan (El-Khushman et al, 2008), 32% in Chile (Bello et al, 2004) to 32% for all psychoactive substances among nurses in the US (Trinkoff and Storr, 1998). It is also noteworthy that in the Chile study, only 33% of physicians who were current smokers were interested in participating in tobacco cessation programmes. Also, a unique concern among physicians is their high rate of self-treatment with controlled medications; a practice that could increase their risk of drug abuse or dependence (Patrick et al 1992). Uniform national guidelines are therefore needed to sensitize medical students and physicians to the dangers of self-treatment with controlled prescription substances (Patrick et al, 1992).

Roberts, 2012 reported that health care workers who abuse substances and have not come to terms with their problems may express anger, feelings of betrayal and render an entire department dysfunctional. This can occur prior to and after the discovery of substance abuse. It was also noted that the disclosure of a substance abuse problem may often lead to feelings of paranoia or "finger

pointing" at others. Many members of the healthcare team worry about being labelled as a "whistle blower" or 'not being a team player'. Personal reluctance to report an impaired co-worker may compound the problem for the impaired healthcare worker and the department, as well as endanger patient safety. An addicted healthcare worker is often regarded as a "professional embarrassment". Often when addiction is suspected, the employee may resign or be dismissed from their position. When this occurs, the problem of substance abuse is not adequately addressed, thereby transporting the individual's addictive behaviour to their next job (Roberts, 2012).

In some countries, there are enabling laws aimed at early identification and treatment of health workers who abuse substances. For example, in the State of Florida, the Board of Nursing can sanction nurses who fail to report any person known to be abusing drugs which is in violation of the Florida Nurse Practice Act. A person who reports a coworker suspected (without malice) to be abusing drugs cannot be sued for defamation of character (Roberts 2012). The Occupational Health Departments of the National Health Service (NHS) assist in the identification and assessment of substance-use disorders among health care workers (HCWs) and are also involved in the management of an individual's return to work after treatment (Gross et al, 2012). In most African countries and in Nigeria especially, such laws are not in existence. The time is therefore ripe to further examine the issue of substance abuse among health workers in Nigeria, with a view to finding enduring solutions to this

menace.

In Nigeria, several studies have examined the prevalence and correlates of psychoactive drug use among groups such as secondary school students (Adelekan et al 2001), undergraduates (Adelekan et al 2000, Aweh, 2011, Makanjuola et al, 2014), long distance vehicle drivers (Makanjuola et al 2007a), prisoners (Fatoye et al, 2010) and medical students (Makanjuola et al 2007b). However, in Nigeria, and specifically in Ilorin, there is a dearth of studies that have examined substance use among health workers in a Nigerian tertiary hospital. Unlike previous studies that focused on prevalence, pattern and correlates of substance use, this study focused on not just on the prevalence, pattern and types of psychoactive substance use but also strives to determine the risk of use of each substance. In addition, unlike previous studies where interviews were conducted (through use of survey questionnaires) without offering intervention, our study gave immediate post interview ASSIST-linked brief intervention to respondents. It is our hope that the immediate post interview ASSIST-linked brief intervention based on respondent's specific substance involvement score (SSIS) will offer quicker and more personalized and specific benefit to this important group of health workers.

METHODS

The Setting: The study was conducted between March and July 2013 among staff of the University of Ilorin Teaching Hospital Ilorin Nigeria, who gave consent to participate in the study. The Hospital is a tertiary hospital which offers medical services to about 10 million people resident Kwara, Kogi, Osun, Niger and Oyo States (NPC, 2006). The hospital also trains postgraduate medical doctors, medical, nursing and paramedical students. The total staff strength as at time of study was 3,027,

comprising of 145 Consultants, 274 Resident doctors, 157 house officers, 23 supernumeraries, 889 nurses, 922 administrative and 617 other staff (laboratory, other support staff).

Sampling frame: All staff (3,027) of the University of Ilorin Teaching Hospital in the year of the study.

Sample size determination: Using the Fisher's formula (Fisher et al, 1983), a calculated sample size of 288 was determined. This figure was raised to 308 which represent 10% of the total sampling frame (Smart et al 1980) and also takes care of a possible 10% attrition rate.

Biomedical ethical considerations: Approval for the study was obtained from the Ethics and Research Committee (Independent Review Board) of the University of Ilorin Teaching Hospital, Ilorin (ERC PAN/2013/01/1183) dated 26th February 2013). The Informed consent of each respondent was also sought and only those who gave formal consent were interviewed.

Pilot test: A pilot study was carried out among 20 staff of the Kwara State Government Civil Service Clinic Ilorin. This was to determine the clarity, acceptability and ambiguity if any, of the questionnaire items.

Instruments used: All respondents who satisfied the inclusion criteria were interviewed using: (1) a data collection sheet and (2) Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) version 3.1 (Humeniuk et al, 2003)

ASSIST Version 3.1. This screening instrument was developed by the World Health Organization (WHO) in response to overwhelming public health burden associated with psychoactive substance use worldwide (Humeniuk et al, 2003). It was designed as a simple tool to be used in primary care setting where hazardous and harmful substance

use may not be detected and therefore get worse. It is an 8 item questionnaire, designed to be culturally neutral and can be administered by trained front line health workers in 3-15 minutes. It is designed to screen for tobacco, alcohol, cocaine, cannabis, amphetamine-type stimulants, sedatives, opioids, solvents, hallucinogens and other drugs. It provides information on substances clients have used in their lifetime and associated problems in the last 3 months. It identifies a range of substance-related problems such as acute intoxication, regular use, dependent or high-risk use and injecting behaviour of clients. ASSIST determines a risk score for each substance. The score is aimed at stratifying respondents into 'low', 'moderate', and 'high' risk categories. Such categorization is expected to determine what intervention will be most appropriated for the respondents such as; 'no treatment', 'brief intervention' or 'referral to a specialist'.

Sampling method:

After due consultations with each department, an appropriate date or dates (with minimal or no disruption to the departmental activities) were fixed for the administration of the study instruments. The purpose of the study was explained to each staff and their consent sought. For those who gave consent, the instruments were administered to them by trained research assistants. On completion of the questionnaire, a Feedback Report Card for clients was generated and all respondents were given a feedback based on the ASSIST Report Card. Depending on whether the respondent's score was in the 'low', 'moderate', or 'high' risk categories, they were given either 'no treatment', 'brief intervention' or 'referred to a specialist' respectively.

Analysis: Data was analyzed using SPSS version 17 computer software. Frequency tables were generated.

RESULTS

Sociodemographic characteristics of respondents: Table 1 shows the sociodemographic characteristics of the respondents. Three hundred and eight respondents consented to take part in the study. One hundred and eighty (58.4%) were males while 128 (41.6%) were females. Their ages ranged from 18-58 years with a mean of 36.1 ± 8.5 years. One hundred and thirty seven (44.5%) claimed were very religious, 161 (52.3%) moderately religious while 10 (3.2%) claimed they were not religious. Majority (75%) claimed they were married while 24% claimed they were single. The respondents were represented across professions: Resident doctors/Interns 58 (18.8%), medical consultants 11 (3.6%), nurses 41 (13.3%), laboratory scientists 12 (3.9%), health assistants 15 (4.9%), pharmacists 5 (1.6%) and administrators 166 (53.9%). Forty five (14.6%) have medical illness while 262 (85.1%) had none.

Ever used drugs or lifetime use (Q1): Respondents who had ever used tobacco were; 10 (3.2%), alcohol 40 (13%), cocaine 0 (0%), cannabis 3 (1%), amphetamine 1 (0.3%), inhalant 6 (1.9%), hallucinogen 0 (0%), opioids 7 (2.3%).

Alcohol and substance use in the last three months (Q2): The most frequently used drug in the last three months prior to interview was; alcohol 17 (5.5%), tobacco 6 (1.9%), sedatives 0 (0%), cannabis 1 (0%) and opioids 7 (2.3%). Among the users of alcohol, the frequency of use in the last 3 months was; once or twice 2 (11.8%), monthly 3 (17.6%), weekly 6 (35.3%) and daily 6 (35.3%). Also, in the last 3 months, the frequency of use of tobacco was; weekly 1 (16.7%), daily 5 (83.3%). Those who use and inject opioids daily were 7 (100%).

Strong desire to use drugs in the last three months (Q3): Respondents claimed that they had strong urge to use tobacco,

alcohol and opioids. The frequency of urge to use tobacco was; weekly 2 (33.3%), daily or almost daily 2 (33.3%). The frequency of use of alcohol was; once or twice 3 (17.6%), monthly 1 (5.9%), weekly 1 (5.9%), daily or almost daily 2 (11.8%). All the opioid users inject it daily 7 (100%).

Health, social, legal, occupational or financial issues in the past three months (Q4): Respondents claimed tobacco, alcohol and opioids have caused health, social, legal, occupational or financial issues in the past three months. Tobacco has been associated with the above issues on weekly basis in 2 (33.3%) respondents and for alcohol in 3 (17.6%) respondents. Among opioid users, there has been health, social, legal, occupational or financial issues in the past three months among all (100%) the users.

Failure to do what was normally expected of respondents (Q5): Two (11.8%) of the alcohol users claimed they have failed to do what was expected of them in the past three months while all (100%) the opioid users claimed they have failed to do what was expected of them.

Expression of concern about drug use (Q6): Two users of tobacco claimed people have expressed concern in the last three months while 1 claimed people expressed concern but not in the last three months. For alcohol users, 3 respondents claimed people have expressed concern in the last 3 months, while 1 respondent claimed people expressed concern but in the last 3 months. All the 7 opioid users claimed people have expressed concern about their drug use in the last 3 months.

Attempt to cut down (Q7): Two (33.3%) have attempted to cut down tobacco in the last three months while an additional one (16.7%) has tried to cut down but not in the last 3 months. For alcohol, 3 (17.6%) have tried cutting down but not in the last 3 months while only

one (5.9%) has tried to cut down in the past 3 months. All the 7 (100%) opioid users have tried to cut down in the last 3 months.

Ever used any drug by Injection (non-medical use): All the 7 (100%) opioid users are 'injectors'. All of them use intramuscular pentazocine at a dose range of 30-90mg daily. One claimed she has used 90mg as a single dose on one occasion which was almost fatal as she had to be admitted in an intensive care facility. All the opioid users started using it when they were on posting to operating theatres. Three of them claimed they were introduced to opioids by colleagues who were already users and were working in the operating theatres in the hospital. All the users procured their drug supply from the hospital, from left-over of patient prescriptions, from pharmacy shops from town and sometimes out of town (as far as 200km outside Ilorin). To avoid being identified, they often send their family members or domestic workers to procure the drugs. While on duty in the hospital, they send unsuspecting patients' relatives or pick up left over drugs of patients. One factor that was common to all the opioid users was that they have multiple hospital files (case notes) which are usually secretly kept by them in contradiction to the existing hospital rules. For each consultation, they present to the doctor the file they wish him/her to see. In most cases, they present new files claiming the previous one has been misplaced or lost. The reason is that they do not want their drug history to be properly documented.

Risk of drug use: All respondents were categorized into low, moderate and high risk groups of drug users based on their specific substance involvement score (SSIS) on ASSIST. For Alcohol, 10 (58.8%) were low risk users, 7 (42.2%) were moderate risk users while none was a high risk user. All the tobacco users were moderate risk users (ASSIST score 4-26), while all users

of opioid were high risk users (ASSIST score 39).

Intervention given: Low risk users were given feedback and encouraged to continue to cut down or abstain completely. Those who are moderate risk users were given immediate post interview 10-15 minutes ASSIST linked brief intervention (Ten step version) which is based on the principles of FRAMES, behaviour change and motivational interview (WHO, 2010). Those with high risk drug use were given ASSIST linked brief intervention and referred for more intensive care in the Substance Abuse Unit of the Department of Behavioural Sciences located within the premises of the University of

Ilorin Teaching Hospital. All respondents were given contact details of the lead researcher for further interaction/enquiries. In addition, all respondents were given an information leaflet to read (GOAL 2013).

Further contact with lead investigator/substance use treatment centre: Among the respondents, only 15 (22.4%) expressed interest to have further contact after the first post interview intervention. The remaining (77.6%) will not want further contact for fear of other members of staff or management seeing them. Twenty seven non-drug users indicated they would like further contact with the investigating team.

Declaration of Interest: None
Funding Agency: None

DISCUSSION

In view of the intervention nature of this study, we set out to interview 10% of the total population of health worker in University of Ilorin Teaching Hospital (UITH), Ilorin, Nigeria. It was found, and quite reassuringly too, that the prevalence of psychoactive substance use is not as high as anecdotal evidence, one of the reasons that prompted this study, would seem to suggest. For instance, the current use prevalence of alcohol was 5.5%, tobacco 1.9% and opioids 2.3%. These figures are comparable to the prevalence of 3% reported among health workers in UK and Nigeria (Okeke et al, 2012) but much less than 8-12% reported among physicians (Cicala 2003). The prevalence of tobacco use was less than 1%, among doctors and 0% among nurses. The non use of tobacco among nurses might a reflection of the prevailing culture in the study location where females (who constitute about 95% of the nurses) do not usually smoke cigarette. The prevalence of current use of opioids among doctors was 0.024% while among nurses it was 12.2%. It would appear that most of the moderate/high risk users of alcohol are doctors while most of the users of opioids are nurses. There is therefore a need to increase education on responsible drinking and total abstinence from use of psychoactive substances among health workers in Nigeria. This is even more pertinent as, among the users, opioids, tobacco and alcohol have been responsible for health, social, occupational or financial issues in 3 months prior to the study, among 100%, 33% and 18% of the respondents respectively.

While absenteeism from work may be an indication for drug abuse among some workers, health workers who abuse drugs tend to be regular at work, sometimes early to resume and late to leave since they

TABLE 1. SOCIODEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Variable	Frequency	Percent %
Gender		
Male	180	58.4
Female	128	41.6
Age		
Range	18-58	
Mean	36.1	
S.D	8.5	
Level of religiosity		
Very religious	137	44.5
Moderate religiosity	161	52.3
Not religious	10	3.2
Marital status		
Single	73	23.7
Married	230	74.7
Separated	2	0.6
Divorced	1	0.3
Widowed	2	0.6
Profession		
Residents doctors/Interns	58	18.3
Consultants	11	3.6
Nurses	41	13.3
Lab scientists	12	3.9
Pharmacists	5	1.6
Health assistants	15	4.9
Administrators	166	53.9
Medical illness		
Yes	45	14.6
No	262	85.1
How to manage a drug user		
'Terminate appointment'	24	7.8
'Refer for treatment'	214	69.5
'Inform employer'	43	14
'It is a personal matter'	26	8.4
'Other measures'	1	0.3

get the drugs at work and need time to use it. It is therefore not surprising that all the users (injectors) of opioids claimed their drug use has not affected their presence at their duty post. Among the four recently managed, an observed trend was that they were eager to resume duties immediately after discharge. This might further corroborate the fact that they procure most of their supplies in and around the hospital and nearby privately owned pharmacy shops.

Among users of psychoactive substances, only 33% have attempted cutting down on the use of tobacco, while 67% have not. For alcohol, only 18% has attempted to cut down while 88% have not. All the opioid users have attempted to cut down. This will suggest a need to design and institute programmes that will provide a platform, without reprimand, for health workers who abuse drugs to seek treatment. Such practices are currently being offered by the Occupational Health Department of the National Health Service (Gross et al, 2012).

It is noteworthy that majority of the respondents (70%) have a liberal attitude towards health workers who abuse substances as they claimed they will refer such drug users to drug treatment centre. Only 8% recommend immediate termination of the appointment of such staff. It was also noted that less than 1% of the respondents claimed 'they will not do anything' as they consider anything contrary an act of betrayal. While we need to further educate staff members to offer the lawful and needful assistance to drug users (which should not be viewed as an act of betrayal), there is a need to put in place laws and guidelines that will protect both the drug user and the colleague who has offered help or has provided information towards identification of a drug user who has refused to seek help. Such provisions have been put in place, for example, in the State of Florida where the Board of Nursing can sanction nurses who fail to report any person known to be

abusing drugs which is in violation of the Florida Nurse Practice Act. The act also protects a person who reports a co-worker suspected, without malice, to be abusing drugs as he/she cannot be sued for defamation of character (Roberts 2012). The managers of the health care facilities need also to be educated so that they can appreciate that health workers who abuse drugs should not be regarded as 'professional embarrassment' or dismissed. Such act will only compound the problem for the drug user and the society as he/she will only carry on the drug addictive behaviour to other jobs (Roberts 2012).

Anecdotal evidence in the study location suggests that there is a significant increase in the use of opioid injections among health workers. We admit that respondents may not totally disclose their drug use status because of fear of dismissal and stigmatization. This may not be unconnected with our observation that 27 (8.7%) of respondents who claimed they have never used substances still indicated that they want further contact (of which only a fraction did) with the lead investigator. The question is, are these respondents drug users who are afraid to disclose their status or they know a user and want counselling on what to do?

The current use prevalence of opioid of 2.3% may not be a correct reflection of what exists. While this figure is relatively low and re-assuring, there is a need to actively, and very quickly, identify users and encourage them to seek treatment. This is quite pertinent as all the opioid users claimed they were introduced to its use by members of staff who were already users. There is a need to act fast in order to prevent a multiplier effect that could be induced by the current users. All the current users of opioid have worked or are currently working in the surgical theatres of the hospital. Could the reason be related to the pain that is associated with long hours of standing as

claimed by some of the respondents? Are the guidelines governing the prescription, use and disposal of opioids not strictly adhered to? There is a need to investigate these and many more issues so that appropriate guidelines could be set up such that theatre users and other health workers could be sensitized to the dangers of self-treatment with controlled prescription substances (Patrick, 1992). Existing rules and guidelines on controlled and prescription drugs in Nigeria should also be strengthened and enforced.

Where there are no guidelines, institutions should be encouraged to set up one, which should expressly state that identified drug users who seek verifiable evidenced based drug treatment and rehabilitation will not be victimized. This will go a long way in reassuring drug users to seek help, both before and after being identified. Where a drug user is identified but continue to use drugs in spite of disabilities and fails to make use of available non-punitive regulations and drug treatment and rehabilitation services, there may be a need, in conjunction with the relatives and social works department, to compulsorily admit such a staff in the overall interest of the drug user, other health service providers and users.

CONCLUSION

We conclude that though the prevalence of substance use among the respondents is, for now, relatively low compared with what exists in other countries, there is a need to increase vigilance and measures aimed at early identification, treatment and support for users.

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