

# Use of Psycho-Substances Among Health Care Students in A Nigerian University

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## ABSTRACT

**Background:** Previous literature has reported the growing trend in the usage of psycho-substances globally despite of its adverse consequences.

**Objective:** A total of 314 medical and pharmacy students of Olabisi Onabanjo University, a state institution, were co-assessed in a bid to found out their level of substance abuse involvement. The study also suggested interventions to stop substance abuse among students.

**Methodology:** The study data was collected using the substance use questionnaire guidelines issued by the World Health Organization. The data analysis was performed using Statistical Package for Social Sciences version 20 for data analysis.

**Results:** The respondents above 18 years old were 76%, and males and Christians respondents were found to be 58% and 78% respectively. Those that have known psycho-substances were 90% although 89% claimed they had no history of family use. The ever-used psycho-substances by the students listed in decreasing order are alcohol (65%), codeine (63%), caffeine (62%), analgesic (47%) and sleeping drugs (38%). Significant reasons for their use were to remain awake at night (60%), study with improved attention (46%) and pressure from peers (41%). As per the survey findings, 89% respondents were in support of stopping psycho-substance use, while 96% choose health education to be the method of intervention to stop psycho-substance use.

**Conclusion:** As a matter of urgency, government should be deeply involved with school authorities to bring a stop to this devastating problem in institutions of higher learning and the society at large.

**Keywords:** Psycho-substances, Use, Students, Institution.

## INTRODUCTION

Any drug that can change the mood as well as the behavior of the individuals' could be called a psycho-substance. The examples of psychoactive drugs

include cocaine, heroin, alcohol, marijuana, sedatives, anxiolytics, opium, amphetamines including hypnotics [1]. In addition, World health organization (WHO) defined substance abuse as the hazardous use of psycho-substances, examples

being alcohol and illicit drugs [1]. Estimated death resulting from alcohol use has been put at 3.3 million yearly, excluding 15.3 million individuals battling drug use disorders around the globe [1]. Again, use of alcohol and tobacco is estimated to contribute as much as 5.4% and 3.7% in that order to global disease burden [2]. The growing trend of substance use with its attendant consequences has earlier been reported [3,4]. Aside these, many other psycho-substances e.g. marijuana, have been employed for different purposes in the industries despite of the negative effects of the drug [4,5]. The consumption of these drugs has become a growing problem among university students who have been ranked a high-risk population of substance users as well as due to its undesirable effects on education, environment, health and well-being of students as a whole. [6-8].

The United Nations rated Nigeria as Africa's highest consumers of cannabis and amphetamine [9]. As declared by a previous research [10], use of psycho-substances among students in higher institutions is a major public health burden, producing high social concern in most countries and Nigeria is not an exception. Decreased academic performance including school dropout, cultism, theft, intoxication, mental disorder are a few stressors that indulge the students in substance abuse [11,12]. Psycho-substance use is spreading like a pandemic causing grievous public health issues and requires urgent attention a detour to life goals and human progress could be initiated. It is indicated that aftermath of drug abuse translates to the individual, the family, and the society. Due to the magnitude of these consequences, all hands should continuously be on deck in order to find a suitable way out of this societal menace.

### **Study significance**

Among the several studies published on psycho-substance abuse by Nigerian universities, limited information with regards to co-assessment of medical and pharmacy students is provided. These groups are future professionals likely to be seen by patients as role models with regards to rational use and implications of psycho-substances based on ethical judgment. This study is carried out to estimate the use of psycho-substances by both present medical and pharmacy students of Olabisi Onabanjo University, Ogun State, Nigeria. The study also recommended interventional methods to prevent its consumption and bring sanity to the society.

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## **MATERIALS AND METHODS**

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A total of 314 students were recruited from Faculty of Pharmacy and Obafemi Awolowo College of Health Sciences, (OACHS), Olabisi Onabanjo University (OOU), Ogun State, Nigeria in 2019. A prospective cross-sectional study with regards psycho-substance abuse among students was conducted. The study data was collected from two faculties and from the Teaching Hospital [Olabisi Onabanjo University Teaching Hospital (OOUTH)] located at the Sagamu campus, Ogun State, Nigeria. Sagamu town is a local government headquarters in Ogun State.

### **Study Population**

A total number of 320 students from both faculty of Pharmacy and Medicine verbally consented to take part in the study using a random sampling method. Participants consisted of students in levels 200-500 of the faculty of Pharmacy and 200-600 level students of faculty of Medicine. They were all approached in their lecture halls after lecture periods.

### **Study Instrument**

The modified version of the World Health Organization questionnaire guideline for substance use in students was used in this study [13]. The self-administered anonymous questionnaire was first pre-tested using 20 non-health science students for clarity and completeness before it was employed. The questionnaire consisted of four sections namely: respondents' demographics, respondent's use of psycho-substances, reasons indicated for psycho-substance use by the students, and suggested interventional methods to stop psycho-substance abuse. The students were briefed of the study rationale and the confidentiality of their information was ensured before distributing the questionnaire. The study questionnaire was distributed to the students after they signed the consent form.

### **Data analysis tools**

The collected data was checked for accuracy and then entered them into Microsoft Excel, which was employed for sorting. The data analysis was carried out using version 20 of Statistical Package for Social Sciences (SPSS), made in Chicago, Illinois. Data was analyzed using descriptive and comparative analyses; while using Chi-squared and Fisher's exact tests for comparison of proportions. Statistically significant association within the different variables was considered at P-value of less than 0.05.

**Ethical issues**

We obtained an official approval for this study from Ethical Review Committee, Federal Medical Centre, Abeokuta, in Ogun State, Nigeria, before starting the work (FMCA/243/HREC/03/2018/12).

**Responses Obtained**

**Respondents' demographics**

The 320 copies of the questionnaire were collected but 314 correctly filled copies were finally analyzed, making it a high response rate of 98%. About 76% of the respondents were above 18 years of age, males were 58%, while second year students constituted the highest representation (25%), singles were roughly 95%, and Christian (78%). Those who had ever known psycho-substances made up 90% while 89% claimed no knowledge of family use history (Table 1).

**Respondents' ever used psycho-substances**

Those who agreed to have ever used psycho-substances were 67%. The ever used psycho-

substances use indicated by the study population in order of the substance and participants percentage was cocaine (4%), tobacco (cigarettes) (6%), caffeine (62%), codeine (63%), and alcohol (65%). However, those who have used only analgesic and sleeping drugs were 47% and 38% respectively (Table 2).

**Reasons indicated for psycho-substances use**

Reasons given by the respondents for their involvement in psycho-substance use included: to remain awake at night (60%), increase attention during study (46%), effects of peer influence (41%), enhance physical activities (33%) and stimulates appetite/body size increase (17%) (Table 3).

**Suggested Interventional methods to stop psychoactive substance abuse**

Roughly 89% of respondents voted to stop psycho-substance use while those who suggested yearly health education were the best interventional method approved by 96% (Table 4).

**Table 1. Respondents' demographics (N=314).**

Variables	Frequency (%)
<b>Respondents' age groups</b>	
≤14	-
15-18	76 (24)
>18	238 (76)
<b>Sex</b>	
Male	181 (58)
Female	133 (42)
<b>Class level</b>	
200L	80 (25)
300L	59 (19)
400L	73 (23)
500L	62 (20)
600L	40 (13)
<b>Marital status</b>	
Single	297 (95)
Married	17 (5)
<b>Religious inclination</b>	
Muslim	69 (22)
Christian	245 (78)
<b>Ever known psycho-substances</b>	
Yes	283 (90)
No	31 (10)
<b>Psycho-substance family use</b>	
Yes	35 (11)
No	279 (89)
<b>Friends/peers use of psycho-substances</b>	
Yes	299 (95)
No	15 (5)

**Table 2. Respondents' ever used psycho-substances(N=314) {\*= Significant}.**

Variables	Yes (%)	No (%)	P-Value
<b>Ever used any psycho-substances</b>	210 (67)	104 (33)	< 0.000*
<b>Type ever used</b>			
Alcohol	204 (65)	110 (35)	< 0.000*
Codeine in syrup	197 (63)	117 (37)	< 0.000*
Caffeine	194 (62)	120 (38)	< 0.001*
Analgesic	147 (47)	167 (53)	0.369
Sleeping drugs	121 (38)	193 (62)	< 0.001*
Tobacco (cigarettes)	18 (6)	296 (94)	< 0.001*
Heroin	18 (6)	296 (94)	< 0.001*
Marijuana	13 (4)	301 (96)	< 0.001*
Cocaine	12 (4)	302 (96)	< 0.001*

**Table 3. Indicated reasons for psycho-substanceuse (N=314) {\*= Significant}.**

Variables	Frequency (%)	P-Value
<b>Keep awake thru night</b>		
Yes	188 (60)	< 0.000*
No	66 (21)	
No response	60 (19)	
<b>Improve attention during study</b>		
Yes	143 (46)	0.000*
No	82 (26)	
No response	89 (28)	
<b>Peer influence effect</b>		
Yes	130 (41)	0.024*
No	85 (27)	
No response	99 (32)	
<b>Enhance physical activities</b>		
Yes	103 (33)	0.027*
No	128 (41)	
No response	83 (26)	
<b>Alert for the day</b>		
Yes	99 (31)	0.044*
No	128 (41)	
No response	87 (28)	
<b>High/altered feelings</b>		
Yes	84 (27)	0.009*
No	134 (43)	
No response	96 (30)	
<b>Stimulates appetite/body size increase</b>		
Yes	53 (17)	< 0.000*
No	173 (55)	
No response	88 (28)	
<b>Noticed poor school records</b>		
Yes	49 (16)	< 0.000*
No	161 (51)	
No response	104 (33)	
<b>Meal replacement</b>		
Yes	25 (8)	< 0.000*
No	189 (60)	
No response	100 (32)	

**Table 4. Interventional methods to stop psycho-substance abuse (N=314) {\*=Significant}**

Variables	Frequency (%)	P-Value
<b>Students agreed to suggest ways to stop psycho-substance use</b>		
Yes	278 (89)	< 0.000*
No	36 (11)	
<b>Suggested interventional methods</b>		
Yearly health education seminar		
Yes	301 (96)	< 0.000*
No	13 (4)	
Religious intervention		
Yes	161(51)	0.730
No	153 (49)	
Peer talk intervention		
Yes	145 (46)	0.300
No	169 (54)	

## DISCUSSION

As per our search, this study is the first to co-assess pharmacy and medical students in respect of psycho-substance use without any cognizance of course differences or any form of disparity. Most of the respondents started using drugs quite early in life (age 18 and above years), which is an indication of early initiation. Other studies [14,15] also reported similar findings though some suggested possible initiation even at a much lower ages [16,17]. Young people usually initiate drug abuse due to peer pressure to try out new things. Earlier studies indicated that the over loaded course schedule faced by medical students could have led them to early substance use or abuse strategy in a bid to overcome same [18,19]. The most predominant gender reported of abuse were male students, which is consistent to the findings of previous studies [20,21]. It has also been deduced that men of 18 years and above are more likely to have double substance dependence rate when compared to female counterparts [22]. In addition, males have also been found in an earlier study to demonstrate higher drug use tolerance in comparison to females [23].

The most used psycho-substances found in this study were alcohol, codeine, including caffeine in that order, and this is a finding similar to previous studies [24-26]. This finding may be a sort of ground testing by these students while awaiting the commencement of experimentation with some of the gateway

substances before taking a look at the very core ones. It is known that alcohol is strongly considered a recreational drink and as such most societies do not frown at its use, apart from social classes with religious affiliations. Substance use is been said to have lingered among the youth as a result of the desire to explore abstract ways of finding the right answers to their numerous needs[4]. We found cocaine and marijuana being the least patronized drugs by these students and this finding is also reported in earlier studies [16, 24, 27].

Those students who agreed of smoking were a small percentage of the assessed students (6%) which is also similar to a previous study [28]. Some other studies [12, 29] however indicated far higher rates of prevalence compared to our findings. The deduced reasons for abuse given in those studies were respondent's need to get relief from severe stress and anxiety thresholds.

The high caffeine usage by these health care students is also in agreement with some previous works [18,19]. Caffeine being one of the common mild stimulants attracts many students to keep themselves awake, and is consumed in high doses especially during examination periods [18]. In a bid to be able to complete their numerous clinical assignments such as practical assignments, daily patient checks in the wards after school periods and other academic activities, these students would need to be awake for longer periods. The excessive work load on medical students might have contributed to the high usage

rate of psycho-substances. The two courses (medicine and pharmacy) have actually been labeled as stress induced courses [19,26] in comparison to other undergraduate courses.

Some of the strong reasons given by the students for indulging in psycho-substance use were to remain awake at night, improve their concentration span on studying and peer pressure to take abusive drugs for fun. The findings of previous studies [16,30] were also consistent to the findings of our study. Other significant reasons discussed in other research studies are gender, family substance use, age and psycho-substance drug availability [4,12]. It should be noted that family use history and substance abuse were not found in our study as predictors of substance abuse, which is observed in previous studies [14,31].

This study also added interventional methods to stop psycho-substance abuse to our questionnaire sections. The students' response indicated overwhelming support to its stop by engaging in yearly health educational interventional programs. Another study [16] also reported the same response by students regarding the introduction of intervention. Despite the fact that majority of our respondents were of Christian religious affiliation, the choice of religious intervention did not come to play in this study. Some other works [19,32], reported that students with high religious inclinations would be unlikely to be involved in psycho-substance use.

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## CONCLUSION

We found that the rate of psycho-substances use among health care students in this location is found to be higher as compared to other previously assessed locations. The findings of this study should be taken as a calling for urgent interventional methods to bring these students to the path of sanity and sobriety. Government and school authorities should be able to work together in order to arrive at the modalities to implement the yearly health educational interventional programs as suggested by the students. It is believed that these educational interventions could effectively control the tide of this menace or reduce it to the barest minimum in our citadel of learning including the society at large.

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## CONCLUSION

In conclusion, there was no significant increase in the incidence of scar dehiscence during delivery attempts in previous one Caesarean section patients and these patients were able to confidently continue their delivery attempts. Therefore avoiding a caesarean section in our population could reduce the increased incidence of caesarean sections.

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