PATTERN OF SUBSTANCE USE AMONG PEOPLE LIVING WITH HIV/AIDS IN A COMPREHENSIVE CARE SITE IN JOS, PLATEAU STATE, NIGERIA

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ABSTRACT

Background: *Substance use has a major impact on individuals, families and communities. The effects of substance use are cumulative, significantly contributing to costly social, physical, mental and public health problems including HIV/AIDS.*

Methodology: *A cross-sectional study conducted among 70 People Living with HIV/AIDS (PLHIV) in 2013 using quantitative methods of data collection. Epi info statistical software version 3.5.4 was used for data analysis and a $P \leq 0.05$ was considered statistically significant.*

Result: *The mean age of the respondents in the study was 30.0 ± 2.03 years with 52.9% male and 47.1% female respondents respectively. Substance use was found among 52.9% of the respondent and alcohol use accounted for 47.1%. Sex of the respondents had statistically significant relationship with substance use ($P = 0.008$)*

Conclusion: *Substance use is common among PLHIV and may be associated with worse HIV treatment outcomes. Therefore, screening for substance use should be an integral part of HIV treatment, care and support services.*

Key words: *Pattern, substance use, People Living with HIV/AIDS*

INTRODUCTION

Substance use has a major impact on individuals, families and communities. The effects of substance use are cumulative, significantly contributing to costly social, physical, mental and public health problems. These problems include: Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), other Sexually Transmitted Diseases (STDs), domestic violence, teenage pregnancy, child abuse, motor vehicle crashes, physical fights, crime, homicide.[1] Virtually any substance whose ingestion can result in euphoric feeling can be misused or abused. These substances include; marijuana, cocaine, alcohol, opiate, methamphetamines, tobacco, hallucinogen, inhalants and anabolic steroid.[1]

Substance use and HIV/AIDS are closely linked. The many health, emotional, family, social and legal problems associated with both of these challenging health conditions amplify and compound each other. HIV infection can be a consequence of behaviours associated with or resulting from substance use. Studies have shown that Injection drug use plays a role in 20% of new cases of HIV diagnosed.[2] People who use cocaine or non-injection drugs are at high risk for engaging in sex in exchange for drugs, which in turn places them at greater risk for HIV infection..

More than 5% of all HIV infections are related to injecting drug use with infected needles worldwide.[3] A study carried out in South Africa, estimated about 5.3% of HIV transmission is via intravenous drug use.[4] Intravenous drugs do not only aid transmission of HIV/AIDS, but also alters people's judgement. This leads to risky sexual behaviours, such as unprotected sex, having multiple sexual partners and a prolonged and traumatic sex, which can also increase risk of HIV transmission.[3] This study was conducted to determining the pattern of substance use among PLHIV accessing treatment, care and support services in a comprehensive site in Jos North Local Government Area (LGA).

METHODOLOGY

Study Area

Plateau State is the twelfth largest state of Nigeria, and is located in North central part of the country. Plateau State has an area of 26,899 square kilometres, the State has an estimated population of about three million people.[5] It is located between latitude 80°24'N and longitude 80°32' and 100°38' east. Bounded to the north east by Bauchi State, North West by Kaduna State, south west by Nasarawa State and south east by Taraba State with Jos North being located in the northern part of Plateau State.[5] Jos North LGA is one of the seventeen LGA in Plateau State having a land mass of 291km² (112.4sqm) and a population of 429,300 people.[5,6]

Our Lady of Apostles (OLA) hospital is a private missionary hospital in Jos. The OLA sisters arrived Nigeria in the year 1878, becoming the first group of women religious in Nigeria. This hospital is funded by catholic organisation in Nigeria.[7] OLA hospital was established in the year 1963 in Jos with current staff strength of about 120.[7] The hospital has the following service outlets: outpatient departments, medical, surgical, paediatric and obstetrics & gynaecology departments. OLA hospital provides comprehensive HIV/AIDS services with support from AIDS Prevention Initiation in Nigeria (APIN).[7]

Study Population

All PLHIV receiving HIV/AIDS treatment, care and support services in OLA missionary hospital.

Study Design

This study was a cross-sectional study

Inclusion and Exclusion Criteria

All PLHIV over 18 years of age receiving HIV/AIDS treatment, care and support services in OLA missionary hospital who had been enrolled into care for at least 6 months were included in the study. All PLHIV below 18 years of age who had been enrolled into care for less than 6 month and those who declined consent to participated in the study were excluded from the study.

Sample Size Determination

The sample size was calculated using standard acceptable formula. A 4.5% prevalence of cannabis use from a previous study was used and a minimum sample size of 70 was obtained.[8]

Sampling Technique

A multi-stage sampling technique was used in this study.

Stage I

Jos North LGA was selected from the list of 17 LGAs in the state using simple random sampling by balloting.

Stage II

From the list of all the 9 comprehensive sites providing HIV/AIDS treatments, care and support services in Jos North LGA, OLA hospital was selected using simple random sampling technique by balloting.

Stage III

A list of all 105 PLHIV booked for monthly visit and who had met the inclusion criteria was drawn from the monthly booking register. Numbers were allotted from 1 - 105 to all the these clients and a computer generated table of random numbers using WINPEPI statistical software was used to select 70 out 105 clients who were administered in the study.

Preparation for Data Collection

Advocacy visits were paid to the management of OLA hospital intimating them with the study. Three research assistants were trained on the administration of questionnaires. The tool of data collection was pretested in another comprehensive site offering HIV, treatment, care and support services in the state. This helped in making appropriate corrections and assessed the ease of administration.

Data Collection Instrument

A semi structured interviewer administered questionnaire was used to obtain information from the respondents.

Data Collection

Three trained research assistants participated in the data collection in the study after a detailed explanation as to the purpose of the study was given to all the eligible respondents and verbal informed consent was obtained from each subject before the administration of the questionnaire. Anonymity and confidentiality of the information obtained was assured and maintained.

Data Analysis

Data analysis was done using Epi info™ statistical software package version 3.5.4 developed by CDC

1600 Clifton Rd. Atlanta, GA 30333 USA. A 95% confidence level was used for the study and a $P \leq 0.05$ was considered statistically significant.

RESULT

A total of 70 PLHIV participated in this study with their ages ranging from 18 to 49 years. The mean age of the respondents was 30.0 ± 2.03 years. Slightly above half (52.9%) of the respondents were males and 33 (47.1%) females. More (58.6%) of the participants in this study had secondary school as the highest level of education while 17.1% and 24.3% had completed primary and tertiary education respectively. [Table 1]

More than half (52.9%) of the respondents in this study had used or were still currently using substances as at the time of the study. Alcohol was the commonly used substance by 33 (47.1%), followed by cigarette 18 (25.7%) and marijuana by 4 (5.7%) of the respondents respectively. Feeling of euphoria, frustration as a result of illness, stress reduction and increase work performance were the reasons cited for substance use by 29.7%, 10.8%, 40.5% and 18.9% of the respondents respectively. [Table 2]

Sex of the respondents showed statistically significant relationship with substance use among the respondents (P = 0.008). Age, marital status and highest level of education of the respondents did not have statistically significant relationship with substance use in this study. [Table 3]

TABLES

Table 1: Socio-demographic characteristics of the respondents

Characteristics	Frequency	Percentage n = 70
Age group (years)		
18 - 22	14	20.0
23 - 27	17	24.3
28 - 32	16	22.9
33 - 37	9	12.9
38 - 42	8	11.4
>42	6	8.6
Mean age	Mean ± SD 30.0 ± 2.03 years	
Sex		
Male	37	52.9
Female	33	47.1
Highest level of education		
Primary	12	17.1
Secondary	41	58.6
Tertiary	17	24.3
Marital status		
Single	21	30.0
Married	39	55.7
Separated	8	11.4
Divorced	2	2.9
Occupation		
Unemployed	6	8.6
Civil servant	12	17.1
Trading	11	15.7
Student	15	21.4
Farming	14	20.0
Artisan	9	12.8
Others*	3	4.3

*= Military and paramilitary personnel, SD = Standard deviation

Table 2: Pattern of substance use

Parameters	Frequency	Percentage
Substance use		
Yes	37	52.9
No	33	47.1
Total	70	100.0
Type of substance use*		
Alcohol	33	47.1
Cigarette	18	25.7
Marijuana	4	5.7
Reasons for substance use*		
Feelings of euphoria	11	29.7
Frustration because of illness	4	10.8
To reduce stress	15	40.5
To increase work performance	7	18.9

*= *Multiple responses obtained*

Table 3: Relationship between socio-demographic characteristics and substance use

Characteristics	Substance use		Total	χ^2	df	P - value
	Yes Freq (%)	No Freq (%)				
Age group (years)						
18 – 22	6(42.9)	8 (57.1)	14 (100.0)			
23 – 27	11(64.7)	6 (35.3)	17 (100.0)			
28 – 32	9(56.3)	7 (43.8)	16 (100.0)	1.913*	6	0.861
33 – 37	4(44.4)	5(55.6)	9 (100.0)			
38 – 42	4(50.0)	4 (50.0)	8 (100.0)			
>42	3(50.0)	3 (50.0)	6 (100.0)			
Total	**37**	**33**	**70**			
Sex						
Male	23 (69.7)	10 (30.3)	33(100.0)			
Female	14 (37.8)	23 (62.2)	37(100.0)	7.105	1	0.008
Total	**37**	**33**	**70**			
Marital status						
Single	12 (57.1)	9 (42.9)	21(100.0)			
Married	17 (43.6)	22 (56.4)	39 (100.0)			
Separated	7 (87.5)	1(12.5)	8(100.0)	5.359*	3	0.116
Divorced	1 (50.0)	1 (50.0)	2(100.0)			
Total	**37**	**33**	**70**			
Highest level of education						
Primary	4 (33.3)	8 (66.7)	12 (100.0)			
Secondary	24 (58.5)	17 (41.5)	41 (100.0)	2.366	2	0.306
Tertiary	9 (52.9)	8 (47.1)	17 (100.0)			
Total	**37**	**33**	**70**			

*= *Likelihood ratio chi square*

DISCUSSION

This study had more male respondents than female which is similar to what was obtained in a similar American study but deferred from that of the study done in Jamaica with more female participants. [9,10]

Other socio-demographic characteristics obtained in this study had similarities with that of the Jamaican study. [10] This study did not assess the time of diagnosis of HIV infection as well as the time of initiation and frequency of substance use. However, more than half of the respondents had ever used substance or were using substance when the study was conducted which was close to the 64.4% prevalence of non intravenous illicit drugs in the National survey on drug use and health report.[11] Contrary to the high prevalence of substance use in this study, other studies conducted elsewhere found lower prevalence of substance use among HIV infected subjects. [9,10,11.]

Alcohol, cigarette and marijuana were found to be substances used in this study which is comparable to alcohol, marijuana and cigarette smoking in a study done among Jamaican youths living with HIV/AIDS.[10] Other studies also found the use of one or more of these substances as well as other substances such as cocaine, opioids, benzodiazepines and heroin among the HIV infected respondents. [9,11,12,13,14,15]

Sex of the respondents showed statistically significant relationship with use of substance with an increasing trend in males when compared to females. However, age, solution focused coping, depression, psychological distress, marital status and educational level were found to have statistically significant relationship with use of substance among PLHIV in others similar studies. [9, 10, 15]

CONCLUSION

Substance use is common among PLHIV and may be associated with worse HIV treatment outcomes. Therefore, screening for substance use should be an integral part of HIV treatment, care and support services.

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