

Prevalence and Predictors of Relapse Among Recovering Substance Users in Yenagoa Municipal, Nigeria

Francis Chia¹, Faith Izibenua Zibs², Esther Mashika³

¹National Drug Law Enforcement Agency, Nigeria

²Bayelsa State Drug Abuse Prevention & Rehabilitation, Yenagoa Nigeria

³Foundation for Changing Lives Against Substance Abuse, Nigeria

Email address:

chiafrancis55@yahoo.com (Francis Chia)

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Abstract: Relapse has remained a major challenge in the treatment of substance users in Nigeria. The situation is such that parents are losing interest in the need for treatment of their children. This cross-sectional study examined the prevalence and predictor factors of relapse among recovering drug-users in Yenagoa. A sample of 106 recovering drug users (aged 11-51 years) discharged from 3 rehabilitation centers in Yenagoa was utilized. Data was analyzed using descriptive statistics, and Chi-square. Responses from participants showed that prevalence rate for relapse was 67.0%. Lack of engagement in productive ventures after treatment was accountable for 57.5% of relapse cases. 78.3% cases were attributed to unavailability of community mutual-help groups. Peer pressure was accountable for 67.9% and parental factor of suspicion and distrust was accountable for 89.7% of cases. The study further showed a relationship between age of onset, level of education, social support and relapse. Participants who initiated drug use at an earlier stage, have lower level of education and poor social support had higher levels of relapse. The researchers recommend for family education on the nature of addiction and trust building during drug treatment. An active partnership between drug treatment centers and the National Directorate of Employment as well as the need for setting-up community self-help groups where recovering drug-users can be empowered to access gainful employment and other support services after treatment were also recommended.

Keywords: Prevalence, Predictor, Relapse, Recovering Substance Users, Yenagoa

Introduction

Uncontrolled return to drug use following comprehensive treatment, is one of the greatest problems' substance abusers and their counselors face (~~Lewis, Dana & Blevins, 2002; Johnson, (2003)~~ [10, 7]. According to Appiah, et al (2017) relapse to drug use after successful treatment and rehabilitation is a global problem and is conceptualized as an integral component of the recovery process. Global statistics on rates of relapse after substance abuse treatment are disturbingly high, averaging about 75% within a 3 to 6-month duration after treatment. Lowman et al., 1996 in their study on replication and extension of Marlatt's taxonomy of relapse precipitants: Overview of procedures and result revealed that at 3 months post-treatment, 40–60% of individuals in treatment for alcohol problems relapse to a

first drink, whereas by 12 months this rate increases to 70–80%. For heroin users and smokers, the 3-month rate of relapse to first use is about 60% and the 12-month rate is approximately 75% (Hunt et al., 1971). Tims (1981) states that the relapse rate is high because it is a cyclical phenomenon.

In Nigeria where the first-ever national survey on drug use in 2018 estimated past year prevalence of any drug use at 14.4 per cent among people aged between 15 and 64 years, relapse situation is not different from documented reports from other countries. This is as Okon & Bassey (2021) reports that frequency of substance abuse relapse is the highest of all diagnosis followed by Bipolar Affective Disorder (BAD) at Federal Neuro-Psychiatric Hospital Calabar, Nigeria. The study found that on monthly basis, over 74% of cases are relapsed substance abuse and admissions following relapse are presented with complaints such as

irritability, aggression, destruction of personal valuables and un-productivity to self and family. Following these admissions, the family is faced with >70% disease burden coupled with admission fees, cost of drugs, laboratory investigations and divided homes. Given the high rate of relapse and problems associated with it, several questions have been raised such as: Are individuals able to maintain abstinence at all following substance abuse treatment? Furthermore, what are the predictor factors to substance abuse relapse and so on?

Predictor factors to substance abuse relapse is an area well researched especially in developed countries compared to developing countries like Nigeria. In the US for example, Kauer, 2004 observed that factors associated with the relapsing or relapsing triggers play a vital role in the stabilization and recovery plan to safeguard sobriety. Wadhwa (2009) postulates that some of the most frequent high-risk situations for relapse are when negative emotions are experienced. Such negative emotions include boredom, loneliness, sadness or depression, disappointment, anger, resentment and stress. Luoma, Twohig, Waltz, Hayes, Roget, Padilla and Fisher (2007) claim that there is little doubt that a person who abuses drug faces stigma and stigma has been found to be another strong predictor of relapse.

Relapse is the biggest problem for recovering addicts. An addict can be forced to abstain from using drugs while they are admitted in a treatment clinic, but once they leave the clinic, they are at risk of relapse (Ranganathan, 2005). This can be triggered by stress, cues associated with past drug use, or re-exposure to the substance. Age of drug use onset also has been found to be a good predictor of relapse. According to Poudel & Gautam (2017), age of onset of substance use is significantly associated with psychosocial problems. They found in their study on *age of onset of substance use and psychosocial problems among individuals with substance use disorders* that mean psychosocial problem scores were higher in early onset substance users than late onset substance users in various domains of DUSI-R even after controlling confounding factors. The two groups (early vs late drug users) differed significantly in relation to age, gender, occupational status, current types of substance use, frequency of use, mode of substance use and relapse history.

Similarly, attitude and poor knowledge on drug abuse have been reported as contributing factors to relapsed addictions among drug addicts. Less support from family members and the community towards former addicts is also highly found to promote relapsed tendency after addiction treatment (Brown *et al.*, 1995). On the issue of environment, environmental cues play an important role in the process of relapse (Bain, 2004). Environmental risk factors that can increase the risk of relapse include increased availability and accessibility of drugs, poverty and unemployment, and encountering people, places and paraphernalia associated with earlier drug use. Bain (2004) suggests that simply returning to a place where the drug(s) was taken can trigger a relapse even months after abstinence commenced.

Rai(2000) posit that there are various indicators for relapse such as level of education, peer group, stress related to work, interpersonal conflicts related to family/friends, strong

positive or negative feelings like happiness and grief, place of residence, mobility pattern, level of income, occupation, socio-economic status, unemployment. According to Benda (2005), the absence of work and dissatisfaction in a work has a greater effect on men. This is because men usually have a high commitment and responsibility in a family as a result of their role as head of the family. So, if they do not get a job after the recovery program, they will be more depressed and eventually re-take drugs to eliminate the pressure.

Relapse is a land mark feature for both substance dependence and substance abuse, which are learned behaviors and is maintained by neuronal adaptation that mediates learning and processing of various motivational stimuli. Some people relapse while in the early stage of recovery, while others relapse after successfully avoided substance use for extended period of time and establishing a routine of substance abstinence. According to Murmane and Howell (2011), reinstatement of drug use after a period of nonuse or abstinence is typically initiated by one or a combination of the three main triggers, which are stress, re-exposure to the drug priming and environmental cues. Similarly, Larimer, Palmer and Marlatt (2015) noted relapse cues to include any item, place or people associated with the drug.

Cheung *et al.*, (2003) states that former drug users who have successfully stopped taking drugs are friends with friends who are free of drug influences and have no connection with old friends after getting out of the drug rehabilitation center. Sun (2007) also prove it that among the causes of 'recidivist' among drug users in Southwest and the United States is because they find it difficult to break up with drug users' networks including friends due to loyalty in friendship, sympathy and want to hang by the group of friends. It is therefore not surprising when Wadhwa (2009) includes peer pressure as one of the most frequent high-risk situations for relapse as the findings of his study. McCrady (2001) is therefore of the opinion that deliberate steps need to be taken to detach drug-dependent people from a social network that is supportive of drug use and to access new social networks that support new behavior. Doweiko (2006) postulates that the individual's access to strong social support systems during times of craving seems to contribute to continued abstinence.

Much of international research has identified some determinants of relapse after drug treatment, however little information on risk factors to addiction relapse is available in Nigeria. While the first-ever national survey on drug use in Nigeria revealed a drug use prevalence of 14.4% which is more than twice the global average of 5.6%, the report also found that more than 40% of high-risk drug users in need of treatment services could not find any for several reasons. While the need to access addiction services in the country is high, delivery of addiction services that can effectively meet the needs of the people requires having an understanding of relapse factors and this is what informed the decision to undertake this study.

Objectives of the Study

1. To determine the prevalence of relapse among

recovering drug users in Yenagoa, Nigeria

2. To find out the leading factors of relapse among recovering drug users in Yenagoa, Nigeria
3. To find out factors that have existing relationship with substance use among recovering drug users in Yenagoa, Nigeria.

Hypotheses

1. There is no significant relationship between educational level and relapse.
2. There is no significant relationship between age of drug onset and relapse.
3. There is no significant relationship between social support and relapse.

Method

Sample

The sample for this study consisted of 106 recovering drug users (Male=58, Female=48) aged between 14-58 years discharged from three (3) drug treatment centers in Yenagoa Municipal, Bayelsa State after spending a mandatory minimum treatment period of ninety days.

Design

The study adopted a descriptive survey research design. This study design is appropriate because the information was gathered from a sample familiar with the information relating to the study's purpose. The study included two methods. The first involved a document review of secondary sources on predictive factors on relapse nationally and globally. Second, the researcher administered a self-developed structured questionnaire to recovering drug users receiving drug

treatment and rehabilitation services at three drug treatment centers in Yenagoa Local Government Area of Bayelsa state.

The questionnaire consisted of several sections capturing questions on demographic factors, age of drug use initiation, number of previous admissions, sources of support after discharge from the drug treatment center, relapse factors etc. Participants for this study were chosen as a purposive sample and the questionnaire given to them were collected back when they were through with it. A total of one hundred and sixty-two questionnaires (162) were administered in the field but only one hundred and six (106) were retrieved and found valid for analyses using descriptive statistics and chi-square. Participants received an informed consent document prior to data collection and they were allowed to read it and ask questions for clarification before submitting their signed consent to the research assistant.

Result

This section of the research work focuses on how the data garnered from the field were presented and analyzed. Data for this study were presented in frequency distribution table, and further analyzed with the use of simple percentage, cross-tabulation, and chi square as shown below.

4.1. Socio-Demographic Characteristics and Relapse

Table 4.1 showed the result of socio-demographic characteristics of respondents and relapse. The socio-demographic variables consisting of gender, age, marital status, educational level, occupation, and level of income were cross-tabulated with drug use after abstinence((relapse). The study found out that all socio-demographic variables except gender (0.124), and age (1.913) were significantly related to relapse at $p < 0.05$.

Table 4.1. Socio-Demographic Characteristics and Relapse.

Demographic variables	Drug Use After Abstinence		Total		X ²	DF	P-Value
	Yes	No	N	%			
	n=71 (67%)	n=35 (33%)					
Sex							
Male	38	20	58	54.7	0.124	1	0.000
Female	33	15	48	45.3			
Age				12.3			
Less than 20 years	10	3	13	39.6			
20 – 30 years	27	15	42	40.6	1.913	3	0.000
31 – 40	30	13	43	7.5			
40 & above	4	4	8				
Marital status							
Married	15	22	37	34.9			
Single	35	6	41	38.7	19.411	4	0.000
Divorced	16	5	21	19.8			
Separated	4	1	5	4.7			
Widowed	1	1	2	1.9			
Educational level							
No Formal Education	7	1	8	7.5			
Primary	17	1	18	17.0	21.478	3	0.000
Secondary	30	9	39	36.8			
Tertiary	17	24	41	38.7			
Occupation							
Civil servant	4	16	20	18.9			
Student	9	3	12	11.3	26.496	4	0.000
Business	14	7	21	19.8			
Artisan	4	1	5	4.7			
Unemployed	40	8	48	45.3			
Income Per Month							
5000	25	2	27	25.5	38.844	5	0.000
10000	15	1	16	15.1			
20000	10	3	13	12.3			

Demographic variables	Drug Use After Abstinence		Total		X ²	DF	P-Value
	Yes	No	N	%			
	n=71	n=35					
	(67%)	(33%)					
30000	11	6	17	16.0			
40000	9	11	20	18.9			
50000 & above	1	12	13	12.3			

Table 4.2. *Nature of Relapse.*

Items/Questions	Frequencies = 278	Percentage = 100%
Have you used drugs after abstinence?		
Yes	71	67.0
No	35	33.0
Total	106	100
If yes, what was the major cause?		
Lack of productive ventures	23	32.1
Lack of community help groups	19	26.4
Peer pressure	16	22.5
Parental factors	13	19.1
Total	71	100
At what age did you start using drugs?		
11-15	42	39.6
16-20	34	32.1
21-25	22	20.8
26-30	7	6.6
30 & above	1	9
Total	106	100
List your choice of drugs?		
Alcohol	4	3.8
Cannabis	62	58.5
Tramadol	14	13.2
Cocaine	5	4.7
Codeine	11	10.4
Cigarette	10	9.4
Total	106	100
How many previous admissions did you have?		
None	16	15.1
One	63	59.4
Twice	22	20.8
More	5	4.7
Total	106	100

Table 4.3. *Sources of support after discharge from drug treatment centers.*

Items/Questions	Frequencies = 106	Percentage = 100%
My family: Did you receive support from your family?		
Yes	46	43.4
No	60	56.6
Total	106	100
My friends: Did you receive support from your friends?		
Yes	62	58.5
No	44	41.5
Total	106	100
My spouse: Did you receive support from your spouse?		
Yes	29	27.4
No	77	72.6
Total	106	100
Did you receive after-care services from the treatment center?		
Yes	29	27.4
No	77	72.6
Total	106	100
Did you receive support from Support groups e.g AA?		
Yes	11	10.4
No	95	89.6
Total	106	100
Did you receive support from Community groups?		
Yes	33	31.1
No	73	68.9
Total	106	100
Did you receive support from the Church?		
Yes	37	34.9
No	69	65.1
Total	106	100

Table 4.4. *Factors responsible for relapse.*

ITEMS/Variables	RESPONSE S	X 106	%	MEAN (X)	S. D	RESEARCH DECISION
Because I am unemployed/ difficulty to get a job	SD	19	17.9	3.6	1.8	Accepted
	D	26	24.5			
	A	30	28.3			
	SA	31	29.2			

I felt I could not cope with my stressful work environment.	SD	24	22.6	2.2	0.9	Rejected
	D	40	37.7			
	A	32	30.2			
	SA	10	9.4			
Some of my family members are using drugs	SD	11	10.4	3.1	1.6	Accepted
	D	12	11.3			
	A	79	74.5			
	SA	4	3.8			
Family members still look down on me for using drugs.	SD	6	5.7	3.2	1.6	Accepted
	D	5	4.7			
	A	73	68.9			
	SA	22	20.8			
I found it difficult to avoid social gatherings	SD	5	4.7	2.8	0.8	Rejected
	D	33	31.1			
	A	46	43.4			
	SA	22	20.8			
I did to attend aftercare services at the rehabilitation center	SD	79	74.5	2.6	0.8	Rejected
	D	11	10.4			
	A	11	10.4			
	SA	5	4.7			
I saw others using drugs	SD	5	4.7	3.0	1.7	Accepted
	D	13	12.3			
	A	63	59.4			
	SA	25	23.6			
I started to feel less committed towards staying drug free	SD	9	8.5	2.5	0.7	Rejected
	D	50	47.2			
	A	37	34.9			
	SA	10	9.4			

Table x. xxxx.

ITEMS/Variables	RESPONSES	X 106	%	MEAN (X)	S. D	RESEARCH DECISION
I felt bored	SD	5	4.7	2.2	0.6	Rejected
	D	72	67.9			
	A	25	23.6			
	SA	4	3.8			
I experienced negative emotional states e. g depression, anxiety	SD	5	4.7	3.4	1.5	Accepted
	D	39	36.8			
	A	42	39.6			
	SA	20	18.9			
I thought I could deal with my negative emotions by using drugs	SD	5	4.7	3.3	1.4	Accepted
	D	24	22.6			
	A	68	64.2			
	SA	9	8.5			
I just felt tempted to use drugs out of the blue and went off to get a drug	SD	5	4.7	2.8	0.9	Rejected
	D	76	71.7			
	A	9	8.5			
	SA	16	15.1			
I have easy access to drugs	SD	7	6.6	3.2	1.6	Accepted
	D	6	5.7			
	A	56	52.8			
	SA	37	34.9			
There are no recovery support services in my community e. g Narcotic Anonymous	SD	12	11.3	3.7	1.9	Accepted
	D	11	10.4			
	A	30	28.3			
	SA	53	50.0			
Pressure from friends to use drugs	SD	5	4.7	3.1	1.2	Accepted
	D	29	27.4			
	A	51	48.1			
	SA	21	19.8			
I lacked needed support after treatment	SD	11	10.4	3.2	1.3	Accepted
	D	10	9.4			
	A	37	34.9			
	SA	48	45.3			

Table x. xxxx.

ITEMS/Variables	Response s	X 106	%	MEAN (X)	S. D	Research Decision
I lacked effective coping means	SD	5	4.7	2.7	0.7	Rejected
	D	26	24.5			
	A	65	61.3			
	SA	10	9.4			
I had financial problems	SD	26	24.5	2.7	0.8	Rejected
	D	40	37.7			
	A	35	33.0			
	SA	5	4.7			
I felt angry	SD	16	15.1	2.6	0.7	Rejected
	D	43	40.6			
	A	42	39.6			
	SA	5	4.7			
I had a craving for drugs	SD	5	4.7	3.0	1.6	Accepted
	D	3	3.8			
	A	81	76.4			
	SA	16	15.1			
I felt frustrated because of relationship with someone else	SD	5	4.7	2.3	0.7	Rejected
	D	76	71.7			
	A	15	14.2			

I felt frustrated with myself because things were not going my way	SA	10	9.4	3.1	1.2	Accepted
	SD	6	5.7			
	D	16	15.1			
	A	73	68.9			
	SA	11	10.4			

Test of Research Hypotheses

Hypothesis 1 (H₀₁): There is no significant relationship between educational level and relapse.

Table x. xxx.

Educational level	Drug Use After Abstinence		Total	X ²	DF	P-Value
	Yes	No	N			
No Formal Education	7	1	8	21.478	3	0.000
Primary	17	1	18			
Secondary	30	9	39			
Tertiary	17	24	41			
Total	71	35	106			

Decision: The calculated value X² 21.478 is greater than the critical table value 7.815 at 3df and 0.05 significant level. Therefore, the researchers reject the null hypothesis and concluded that educational level significantly affect relapse as illiterates and semi-illiterates were more prone to relapse than their educated counterparts.

Hypothesis 2 (H₀₁): There is no significant relationship between age of drug onset and relapse.

Table x. xxx.

At what age did you start using drugs?	Drug Use After Abstinence		Total	X ²	DF	P-Value
	Yes	No	N			
11-15	34	8	42	16.026	4	0.000
16-20	25	9	34			
21-25	8	14	22			
26-30	3	4	7			
30 & above	1	0	1			
Total	71	35	106			

Decision: The calculated value X² 16.026 is greater than the critical table value 9.488 at 4df and 0.05 significant level. Therefore, the researchers reject the null hypothesis and concluded that age of drug onset significantly affect relapse as participants who initiated drug use at early age were more susceptible to relapse.

Hypothesis 3 (H₀₁). There is no significant relationship between social support and relapse.

Table x. xxx.

Social Support?	Drug Use After Abstinence		Total	X ²	DF	P-Value
	Yes	No	N			
Yes	8	25	33	39.575	1	0.000
No	63	19	73			
Total	71	35	106			

Decision: the calculated value X² 39.575 is greater than the critical table value 3.841 at 1df and 0.05 significant level. Therefore, the researchers reject the null hypothesis and concluded that lack of social support significantly affect relapse.

Discussion

Studies such as the first national survey on drug use in 2018 in Nigeria revealed that by the age of 15 years, people had already started using drugs which means that some people are likely to commence drug use even at an earlier age than 15 years. Findings of the present study are in conformity with the result of the first ever national survey. This is because, majority (39.6%) of the participants had started using drugs at the age of between 11-15 years. The study found that lack of productive ventures or work was one of the major reasons for relapse by the study participants. This finding is in agreement with Benda (2005) whose study revealed that the absence of work and dissatisfaction in a work has a greater effect on men. This is because men usually have a high commitment and responsibility in a family as a result of their role as head of the family. So, if they do not get a job after the recovery program, they will be more depressed and eventually re-take drugs to eliminate the pressure. The population of people entering drug treatment programs in Nigeria is highly male-dominated thus making

the results of the two studies compatible.

Findings from this study revealed that majority of the participants received no support from their family members after discharge but from their friends. Even among the married couples, majority mentioned that that they did not receive support from their spouses and support from groups such as the Alcohol Anonymous (AA), community and the church was low. This study is supported by Doweiko (2006) who postulates that individual's access to strong social support systems during times of craving seems to contribute to continued abstinence. Where strong support for recovering drug users is lacking or low, rates of relapse are likely to be higher. Similarly, Sun (2007) claimed that among the causes of 'recidivist' among drug users in Southwest and the United States is because they find it difficult to break up ties with drug users' networks including friends due to loyalty in friendship, sympathy and need to hang by the group of friends. The study also found that age of drug use onset significantly affect relapse as participants who initiated drug use at an early age were more susceptible to relapse. This finding is in agreement with Poudel & Gautam (2017), who claimed in their study that the age of onset of substance use

was significantly associated with psychosocial problems. The mean psychosocial problem scores were higher in early onset substance users than late onset substance users in various domains of DUSI-R even after controlling confounding factors. The two groups (early vs late drug users) differed significantly in relation to age, gender, occupational status, current types of substance use, frequency of use, mode of substance use and relapse history.

Conclusion

This descriptive study was carried out to find out the prevalence of relapse and factors contributing to the relapse of client's discharged from three rehabilitation centers in Yenagoa city. Findings from the study revealed that rate of relapse was high and lack of productive ventures referring to unemployment was one of the major reasons for relapse by the study participants. Another major factor identified was lack of needed support from family members, professional groups, church and the community support group after discharge from the treatment and rehabilitation centers. Findings from the study revealed that age of drug use onset and educational level significantly affect relapse as participants who initiated drug use at early age were more susceptible to relapse and illiterates and semi-illiterates were more prone to relapse than their educated counterparts. The researchers recommend for an active partnership between drug treatment centers and the National Directorate of Employment as well as the need for setting-up community self-help groups where recovering drug-users can be empowered to access gainful employment and other support services after treatment.

Conflict of Interest

The author declares that there is no conflict of interest.

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