

Personality Traits and Correlates of Substance use among Persons with Mental Health Challenges in a Psychiatric Facility: Implication for Counselling

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Abstract

Substance use causes a significant burden to individuals and societies throughout the world. This study aimed to evaluate personality traits and correlates of substance use among persons with mental health challenges in a psychiatric facility and its implication for counselling. This cross-sectional survey study used a purposive sampling technique to select one hundred and eighteen participants (97.5%) males and (2.5%) females with age ranges from 17 to 47 years, mean age of 30.8 and (SD ± 7.3). The study revealed that 62.7% uses cigarettes, 50% uses cannabis and 37.5 uses tramadol. Fifty percent of the participants use more than two psychoactive substances. Residing in an urban setting, earning below \$ 2, coming from the polygamous background, and having unhindered access to drugs were found to correlates with psychoactive substance use. On five dimensions of personality traits, 50% of the participants were neither high nor low on extraversion, 55.9% were high on neuroticism and 52.5% were high on openness to experience. On agreeableness, 55.9% were low and on conscientiousness 54.2% were low. Base on the above findings, it therefore recommends that incorporation of personality assessment, correlates and patterns of use should be given attention during substance abuse rehabilitation program.

Keywords: Substance use, Correlates, Personality traits, Patterns of use.

Introduction

Substance use has now become socially acceptable behaviour in most societies all over the world. In 2014, the Center for Disease Control and Prevention sees the substance as the main contributor to health and social predicament. Several studies have shown that substance use is prevalent in Nigeria (Akannam, 2008; Gureje et al., 2007). Almost every country in the world is affected by one or more drugs being abused by the citizens (United Nations Office on Drugs and Crime, "UNODC" 2007). According to UNODC estimates (UNODC, 2003), about 200 million people make use of one type of illicit substance or another, cannabis is the most common illicit substance used, followed by amphetamines, cocaine and the opioids. But in an epidemiology study in Nigeria, alcohol, tobacco and sedatives respectively were frequently used (Gureje et al., 2007).

The increased drug abuse globally has brought problems such as an increase in violence, crimes, and public health challenges (Oshodi, Aina, & Onajole, 2010; UNODC, 2007). World Health Report 2002 indicated that 8.9% of the total burden of disease comes from the use of psychoactive substances. The report showed that tobacco accounted for 4.1%, alcohol 4%, and other illicit drugs 0.8% of the burden of disease (Murray & Lopez, 1996).

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In psychiatric settings, substance use among individuals with mental health challenges is one of the most significant problems facing the public mental health system. The estimated rate of current substance abuse among persons with mental health challenges was 65% (Mueser, Bennett, & Kushner, 1995). The high rate of substance use among this population could lead to frequent hospitalization, relapse and a poorer course of illness than individuals with a single diagnosis, and patients stand the risk of causing more problems for themselves, their families, clinicians, and the mental health system (Carey, Carey, & Kalichman, 1997; Mueser, Bennett, & Kushner, 1995).

In a study conducted among persons with mental disorders in South-Western Nigeria, alcohol was the most frequently used substance followed by Tobacco and Cannabis (Abayomi, Ojo, Ibrahim, Adelufosi, & Obasan 2012). In another similar study among in-patients with substance use disorders in a mental health facility in north-eastern Nigeria, cigarette was found to be the most currently used substances, followed by cannabis and tramadol (Onyencho, et al., 2016). Based on the above studies, it was evident that alcohol, tobacco and cannabis respectively were the major substances of abuse in south-western Nigeria while cigarette (tobacco), cannabis, tramadol and alcohol respectively were the major substances of abuse in north-eastern Nigeria.

Personality trait plays a significant role in human behaviour. Personality traits are “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings and actions” (McCrae & Costa, 1990). These traits shape how individuals direct their attention and activate specific goals (McCrae & Costa, 1995). In addition, Phares (1991) sees personality as the pattern of characteristic thoughts, feelings, and behaviours that distinguishes one person from another and persists over time and situation. Based on the above definition of personality, only you possessed your traits. Therefore, the personality type of an individual may serve as a predisposing or protective factor for individuals with substance use.

In terms of the Five-Factor Model of personality, individuals prone to abuse intoxicating substances have been characterized by low extraversion (Trull & Sher, 1994), agreeableness (Flory, Lynam, Milich, Leukefeld, & Clayton, 2002), and conscientiousness (Flory et al., 2002), as well as high neuroticism (Sher et al., 2000) and openness (Flory et al., 2002; Sher et al., 2000). In a similar study, Kornor and Nordvik (2007) reported that the substance-dependent sample scored higher on Neuroticism, lower on Extraversion and lower on Conscientiousness than the controls. Also, drug involvement was associated with low Conscientiousness, low Agreeableness, and high Neuroticism (John, Malouff, Thorsteinsson, Rooke, & Schutte, 2007). In a study conducted among opioid addicts, higher scores on Neuroticism and lower on Extraversion, Agreeableness and Conscientiousness were reported compared to the normal population (Kvisle, 2004). From the literature reviewed it was evident that being low on extraversion, agreeableness, conscientiousness and being high on neuroticism and openness to experience measures were associated with substance use

Previous studies have identified some correlates of substance use among persons with mental disorders (Hauli et al., 2011). In a study conducted in Nigeria, Onyencho et al. (2016) found that most of the participants were in their early adulthood, the majority were males and single. Employment rate was relatively high as most of the participants were employed in public and private sectors while others were students, peasant farmers, artisans and petty traders, the majority had at least secondary school education. Similarly, substance use was significantly associated with a polygamous family background (Fatoye, 2003; Ikegwuonu, 2009).

Furthermore, the family background did not generally have a significant association with substance use; other family factors such as having a family member who uses a substance generally did (Akanni & Adayonfo, 2015). Other factors that have been associated with substance use among the youths are; substance availability, accessibility, poor mental health, high social class, unhealthy family background, perceived adult drug use, peer's use of substances, poor academic achievement, desire to remain awake at night, conflicts with parents, emotional distress, low sense of social responsibility, its use in local films and videos and low level of religiosity (Aina & Olorunshola, 2008; Rasheed, 2010). Chances of substance abuse are less when the young or the adolescent stay with both parents rather than others, the worse parents the drug abusers stay with are their mothers and there were no relationships between birth order and substance abuse (Forster, Tannhauser & Barros, 1996). Peer pressure, the urge to be curious and wish to experiment, unemployment, idleness, unstable family conditions, death, separation, boredom, poverty, affluence and the bustles of city life, to enhance job or sexual performance and drug use in the family (NDLEA, 1992; Abayomi, et al., 2012).

Also, peer pressure, curiosity, occupational factor, neighborhood disorganization has been implicated in substance abuse (Sussman & Ames, 2001; Onyencho et al., 2016).

The negative consequences of substance abuse among youth and psychiatric patients have been widely reported (Courtois, El-Hage, Moussiessi, & Mullet, 2004; Onyencho et al., 2016). The problem of substance abuse is growing at an explosive rate; it has spread its malevolent tentacles to almost every part of the world bypassing all protective and control measures put in place by the authorities (King & Chassin, 2014). Several studies on personality traits and psychosocial correlates of substance abuse among psychiatric patients and non-psychiatric patients have been done, mostly in the southern part of the country and attention were only focused on demographic characteristic and family structure of the participants (Abikoye & Olley, 2012; Abayomi, Ojo, Ibrahim, Adelufosi, & Obasan 2012; Akanni and Adayonfo, 2015; Fatoye, 2003), also, on personality traits, Onyencho et al. (2016) only considered three dimensions of personality trait (Neuroticism, Psychoticism, Extraversion).

Considering the above gap in the existing literature, the aims of this study were two-fold; to examine psychosocial correlates of substance abuse among persons with mental health challenges in a psychiatric facility and to assess the predominant personality traits among the participants.

Method

Research Design and Setting

This cross-sectional survey study was conducted among persons with mental health challenges presenting for detoxification and rehabilitation at Drug Addiction Treatment and Research (DATAR) Unit of Federal Neuropsychiatric Hospital, Maiduguri, Borno State. This is a tertiary psychiatric facility that serves as a centre of referral for Neuropsychiatry for the northeast geopolitical zone of Nigeria.

Research Procedure and Participants

A purposive sampling technique was used to recruit 118 in-patients with substance use disorders undergoing detoxification or rehabilitation programs in the facility for over two years (April 2016 to April 2018). Inclusion criteria; 1): the participants: must be psychologically stable. The exclusion criteria were; 1): the presence of comorbid psychiatric disorder; 2): the presence of florid drug-related symptomatology likes withdrawal symptoms. To rule out comorbid psychiatric conditions and drug-related withdrawal syndromes among the participants, thorough mental state assessment and physical evaluation were independently conducted by psychiatrists and clinical psychologists.

Ethical consideration

Ethical clearance for this study was obtained from the research and ethical committee of Federal Neuropsychiatric Hospital, Maiduguri after the study was found to conform with the recommendations of the Helsinki declaration for research on human subjects. Also, informed consent was obtained from the participants. Privacy and confidentiality were assured and codes were used for data entry to maintain anonymity.

Instruments

A socio-demographic questionnaire was used to elicit the socio-demographic characteristics of the respondents in this study. It included information on respondents' sex, age, occupation, employment status, and duration of illness.

The Big Five Personality Inventory (BFI) is a psychological instrument that measures the personality traits of individuals. The inventory is a 44 item scale that assesses five personality traits (extroversion, neuroticism, openness, conscientiousness, and agreeableness). The respondents have to give his or her rating for each of the items of a 5-point Likert type of rating scale ranging from "Strongly Agree" to "Strongly Disagree". The BFI has a test-retest reliability coefficient of 0.85, a reliability coefficient Cronbach alpha of 0.80 and constructs validity of 0.75 respectively (John et al., 1991). For this study, the following mean (\bar{x}) for each trait was established; extraversion (25.65); agreeableness (32.69), conscientiousness (31.86), neuroticism (22.06), and openness to experience (32.71). A score above the mean is regarded as high and a score below the mean is regarded as a low score on the traits.

Statistical Analysis

The data obtained were analyzed using the Statistical Package for Social Sciences, version 17. Descriptive statistics were used to analyze the demographic characteristics of the participants and correlates of substance abuse. Furthermore, descriptive statistics were also used to examine the personality traits of the participants.

Results

Table 1.0: Showing Socio-demographical information of the participants

Variables	N	%
Age:	Age Range (17-47); Mean age (30.8) yrs; SD (7.3)	
Gender:	115	97.5
Males	3	2.5
Females		
Marital Status:	86	72.9
Single	25	21.2
Married	5	4.2
Separated	2	1.7
Divorced		
Educational Level:	11	9.3
No formal Education	16	13.6
Islamic Education	10	8.5
Primary	38	32.2
Secondary	27	22.9
OND/NCE	16	13.6
HND/BSC		
Occupational:	36	30.5
Civil Servants	13	11.0
Private Organisation	9	7.6
Farmer	6	5.1
Artisans	15	12.7
Petty Trader	39	33.1
Unemployed		
Religion:	99	83.9
Islam	19	16.1
Christianity		

Table 1.0 shows a summary of the socio-demographic information of the participants. The age ranges from 17 to 47 years with a mean age of 30.8 and (SD \pm 7.3). There were more males than females. The majority were single, religious affiliation shows more Moslems than Christians; the unemployment rate was high, the majority had educational attainment of secondary school level and below.

Table 1.1: Showing Current use of the psychoactive substance.

Substances	Frequency	Percentage
Cigarette	74	62.7
Cannabis	59	50.0
Tramadol	44	37.3
Codeine	39	33.1
Alcohol	39	33.1
Flunitrazepam (Rohypnol)	31	26.3
Diazepam	29	24.6
Energy Drink	25	21.1
Ethanol-containing drink/ Sukudye	17	14.4
Trihexyphenidyl (Benzhexol)	15	12.7
Volatile Solvents	4	3.4
Heroin	2	1.7

Table 1.1 shows the percentage of participants currently abusing either of the psychoactive substance. Out of 118 participants, 74 (62.7%) uses cigarette, 59 (50.0%) uses cannabis, 44 (37.5%) uses tramadol, 39 (33.1%) uses codeine, 39 (33.1) uses alcohol, followed by Flunitrazepam (Rohypnol), diazepam, energy drink, ethanol-containing drink (sukudye), trihexyphenidyl (Benzhexol), volatile solvents, heroine respectively.

Table 1.2: Showing Patterns of Psychoactive Substance use

Participants	Frequency	Percentage
Multiple Psychoactive Substance abusers	49	49.6
Bi-Psychoactive Substance abusers	22	22.9
Mono-Psychoactive Substance abusers	28	28.3
Not Revealed	19	16.8

Table 1.2 shows the patterns of psychoactive substance use among the participants. Multiple psychoactive substance use was prominent among the participants, 49 (49.6%) of the participants currently abuse more than two psychoactive substances, 22 (22.9%) of the participant's abuse at least two psychoactive substances, while 28 (28.3%) of the participants abuse only one type of psychoactive substance.

Table 1.3: Showing Correlates of Substance use among the Participants

Correlates	N	%
Residential Location: Urban:		
Urban	82	69.5
Rural	31	26.3
Not Revealed	5	4.2
Daily Income:		
Earned below \$ 2	42	35.6
Earned below \$ 4	34	28.8
Earned above \$ 4	35	29.7
Not Revealed	7	5.9
Family Type:		
Polygamous	69	58.5
Monogamous	37	31.4
Single parenting	5	4.2
Foster home	2	1.7
Not Revealed	5	4.2
Parental Educational Background:		
Both Parents are Educated	42	35.6
Only the father is educated	28	23.7
Only the mother is educated	6	5.1
Both parents are not educated	42	35.6
Drug Accessibility:		
Very Easy	65	55.1
Easy	41	34.7
Somehow Difficult	7	5.9
Difficult	5	4.2

Table 1.3 shows some of the correlates of psychoactive use among the participants. Residing in an urban setting, earning below \$ 2, coming from the polygamous background, and having unhindered access to drugs were implicated in this study.

Table 1.4: Showing Personality Characteristics of the Study Participants

Personality Traits	Option	Frequency	Percentage
Extraversion	Low	58	49.2
	High	60	50.8
Agreeableness	Low	66	55.9
	High	52	44.1
Conscientiousness	Low	64	54.2
	High	54	45.8
Neuroticism	Low	52	44.1
	High	66	55.9
Openness to Experience	Low	56	47.5
	High	62	52.5

Table 1.4: On five dimensions of personality traits, 50% of the participants were neither high nor low on extraversion, 55.9% were high on neuroticism and 52.5% were high on openness to experience. On agreeableness, 55.9% were low and on conscientiousness 54.2% were low.

Discussion

This study found age range (17-47) years for most substance users, the majority are males, single, unemployed and of low academic qualification. This finding concurred with a similar study conducted among in-patients with substance use disorders that found most participants were; unemployed, late adolescence to early adulthood, the majority were males and single (Abayomi et al., 2012; Onyencho et al., 2016).

It was further established in this study that residing in an urban setting, low income or socio-economic status, coming from a polygamous home and having easy access to drugs were all correlates of substance use. Similarly, Aina and Oloruntoba (2008); and Rasheed (2010) reported substance availability, accessibility, unhealthy family background, poor academic achievement, poor mental health as correlates of substance use in their study.

Nicotine (cigarette) was the most frequently used substance followed by cannabis and tramadol. This pattern was similarly reported by Onyencho et al. (2016). However, Abayomi et al. (2012) reported alcohol as the most frequently used substance. The disparity in the finding might be a result of Islamic injunctions that prohibit Muslims from alcohol consumption because the two studies were conducted in a different geopolitical zone in which one zone was dominated by Christians and the other by Muslims. Also, the easy accessibility and affordability of these psychoactive substances, in addition, inadequate enforcement of government policies by the agencies saddle with the responsibilities of regulating substance trade and consumption in the society has been established (Gureje et al., 2007).

Furthermore, poly or multiple psychoactive substance use was prominent among the participants; almost half of the participants currently abuse more than two psychoactive substances. This finding was in keeping with the previous study where the current use of two or more psychoactive substances among the participants were reported (Onyencho et al., 2016).

Considering the current rate of multiple psychoactive substance use among persons with substance use disorders with or without mental health challenges, it is evident that this pattern of substance consumption has a physiological effect on the abusers hence motivated the action.

Substance abuse rehabilitation will not be successful without giving adequate attention to the personality traits of individuals. In view of this, this present study examined the personality factors as correlates of substance abuse among persons with mental health challenges. A number of the participants were found to be high on neuroticism and openness to experience. This finding was in agreement with previous studies where individuals prone to abuse intoxicating substances have been found to be high on neuroticism (Sher, et al., 2000; John, et al., 2007), and openness to experience (Flory et al., 2002; Sher et al., 2000). On the other hand, most of the participants were low on agreeableness and conscientiousness, this finding was in line with the findings of previous studies where low agreeableness was reported (Flory, et al., 1994; Kvisle, 2004; John, et al., 2007) and conscientiousness (Kvisle, 2004; John, et al., 2007).

Lastly, on extraversion, participants were neither high nor low because there was no significant difference in the. This finding was contrary to the findings of previous studies that found substance abusers to be low on extraversion (Trull & Sher, 1994; Kvisle, 2004; Kornor & Nordvik, 2007). The controversy on extraversion finding might be due to the peculiarity of the participants; this index study was carried out among persons with mental health challenges that are likely to be under medication, are in a restricted environment and probably suffering from the subtle effect of medication.

Conclusion and Recommendation

This study investigated the personality and correlates of substance use among persons with mental health challenges in a psychiatric facility. From the findings, it was established that being male, single, unemployed, lower level of education attainment, residing in an urban setting, low income or socio-economic status, coming from a polygamous home and having easy access to drugs were correlates of substance use.

On the patterns of use, nicotine (cigarette) was the most frequently used substance followed by cannabis and tramadol. Multiple psychoactive substance use was the prominent patterns of use, almost half of the participants currently abuse more than two psychoactive substances. On personality traits, most of the participants were found to be high on neuroticism and openness to experience. Also, most of the participants were found to be low on agreeableness and conscientiousness. However, the study indicates that participants were neither high nor low on extraversion.

It therefore, recommended that a thorough personality assessment should be done during substance abuse rehabilitation. This will enable health care providers such as; psychiatrists, clinical psychologists and psychiatrist nurses to identify predisposing, precipitating, maintaining factors in terms of personality traits and others correlates to substance use and these factors will also be considered during motivational interviewing. In addition, the era of mono drug abuse has passed, health care providers should always enquire more about others drugs of abuse during the assessment, as the patients are likely to only mention one or two drugs of abuse leaving others because of the poor insight that always characterized the stages of change (pre-contemplation stage) they are at that moment.

Study of this nature cannot be complete without its limitations; the total number of participants recruited into this study was considered to be small for generalization. Also, many other factors responsible for substance use and abuse were not mentioned. All these are suggestions for future researchers to assess. However, the findings obtained in this study are interesting and with relevant implication for future

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