

PSYCHOLOGICAL CORRELATES OF SUBSTANCE ABUSE IN NON-PSYCHIATRIC AND PSYCHIATRIC POPULATION

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Abstract

The paper investigates psychological correlates of substance abuse among psychiatric patients. One Hundred and six (106) psychiatric patients from Uyo prisons and psychiatric hospital in Eket and 110 non-psychiatric others from Eket and Uyo served as participants. Their ages range from 16-65 years. The Eysenck Personality Questionnaire (Neuroticism and Psychoticism scales) and the Psychological Correlates of Substance abuse Index developed by researchers were used in the study. Three hypotheses were tested. A survey and co relational design was adopted while the Chi –Square was used for statistical analysis. Findings in the comparison of opposite populations indicate a statistically significant difference between psychiatric and non-psychiatric patients on substance abuse in relation to psychological factors ($X^2 = 27.23$, $df = 1$, $P < 0.001$). Also, the hypothesis predicting a statistically significant difference on substance abuse between the high and low neuroticism groups was found to be significant ($X^2 = 6.66$, $df = 1$, $P < 0.01$). However, the hypothesis on the influence of psychoticism on substance abuse was not supported as there was no statistically significant difference between the low and high psychoticism groups on substance abuse. It is recommended that there should always be proper screening of patients on personality and behavioral traits before admission or placement in public institutions in the same way that governments and families should help to restrict the use psychoactive substances. Generally, the paper concludes that there should be a coordinated legislation against drug use and abuse.

INTRODUCTION

From time past, the human race has used one substance or the other in order to reduce physical pain or to alter state of consciousness. Virtually, all people have discovered some intoxicant that affects the central nervous system, relieving physical and mental anguish or producing euphoria (Davison & Neale, 2001).

In Nigeria, it is a common practice that most people use drugs to stay awake (coffee or kolanut), or stay alert throughout the day, (cigarettes), as a way to relax (alcohol) and to reduce pain (aspirin). The widespread availability and frequent use of various drugs sets the stage for the potential abuse of substances, which is the main burden of the study.

People who abuse substances do so at a high personal cost including impairment in personal relationships, occupational and social functioning. Such risks include armed robbery, cultism, violence mainly attributed to their personality traits, medical and psychiatric illnesses, accidents and injuries, problems in workplaces and even death of abusers.

The issue of drug abuse has also posed a financial constraint on the economy of our country and the world at large. For instance, the United Nations International Drug Control Programme (UNDCP) budgeted \$148, 573.20 (about ₦12, 628,722) for combating drugs in 1998/1999 in all countries of the world (Adesola, 1998). This excludes what individual Nations budget for drug-related matters each year. Also, the estimated cost for combating drugs and their related health hazards in Nigeria in 2006 was put at 2 billion naira (National Drug Law Enforcement Agency, 2007).

The pathological use of substances falls into two categories – substance abuse and substance dependence (Davison, Neale, & Kring, 2004; Davison & Neale, 2001). The Diagnostic and Statistical Manual of Mental Disorders (DSM) IV (2000) is used to characterize and diagnose patients into these two broad groups.

Some of the psychological variables that have been shown to correlate with substance abuse include mood, beliefs about prevalence and risks, and personality variables. These personality variables are psychological

factors that attempt to explain why certain people are drawn to substance use and abuse (Davison et al, 2004; Ifeagwazi, 2005).

In this respect, trait theorists designate specific personality characteristics that predispose people to substance abuse.

With reference to personality traits, Oluwatelure (1995) found a positive correlation between extroversion and substance abuse. However, Ifeagwazi (2005) failed to find any relationship between extroversion and substance abuse. Moreover, other studies have a strong relationship between neuroticism and substance abuse (Killen, Robinson, Haydel, & Hayward, 1997); Ifeagwazi, 2005).

High scorers in neuroticism experience various negative emotions such as anxiety, depression, anger, shame, guilt, sadness and hostility. These negative unpleasant states have been linked with alcohol and drug abuse (Killen et al, 1997; Ifeagwazi, 2005).

Furthermore, studies have found a positive relationship between psychoticism and substance abuse (Oluwatelure, 1983; Ifeagwazi, 2005).

High scorers on psychoticism exhibit some personality and behavioural traits such as impulsivity, aggressiveness, egocentrism and antisocial tendencies (Carey & Dilalla, 1994) and these traits have been shown to correlate with substance abuse (Anderson, Magnusson, & Wennberg, 1997; Bushman, 1997).

The work intends to answer curious questions such as: (1) Do psychiatric patients differ from non-psychiatric patients on psychological correlates of substance abuse? (2) Does neuroticism exert influence on substance abuse? (3) Does psychoticism exert influence on substance abuse?

The central purpose of the work therefore is to investigate specifically whether there exists any difference between psychiatric patients and non-psychiatric patients on psychological correlates of substance abuse as perceived by the participants.

Also the study aims at determining whether neuroticism exert a significant influences on substance abuse respectively among psychiatric patients.

OPERATIONAL DEFINITION OF TERMS

Psychological Correlates:-These are psychological variables that relate to or influence substance abuse. These relate to the personality and cognitive factors that induce, lead to or influence abuse of psychoactive substances. In the study, they are exemplified in the psychological correlates of substance abuse questionnaire.

Substance / Substance abuse: A substance is a chemical that can exert an influence on the brain whereas substance abuse refers to excessive or inappropriate use of a substance.

Neuroticism: This is a personality trait that is marked by worries, anxiety, and irritability. It is measured by 23 items of the Eysenck Personality Questionnaire (EPQ). Scores 6.43 and above (for males) and 8.42 and above for females designate high neuroticism while scores less than 6.42 and 8.42 designate low neuroticism for male and female respectively.

Psychoticism: It is a personality trait that is marked by tough-mindedness, aggressiveness, and impulsivity. It is measured by 25 items of the EPQ. Scores 4.62 and above (for males) and 2.97 (for females) reflect high psychoticism while scores less than 4.62 and 2.97 reflect low psychoticism for males and females respectively.

THEORETICAL REVIEW ON SUBSTANCE ABUSE

Expectancy Model

This theory evolved from cognitive-behavioural and social learning perspectives (Dimeff & Marlatt, 1998). According to this model, people with alcohol dependence develop problematic beliefs about substances use relatively early in life can occur through a combination of reinforcement and observational learning

Another concept of expectancy model is that of self- efficacy and coping. Self-expectancy refers to an individual's perception that he or she has the ability to meet the challenges of a difficult situation while coping refers to the strategies that an individual uses to reduce the perception of a threat or danger.

Based on Dimeff and Marlatt's (1988) expectancy model, a series of reactions can occur when a drug-dependent individual attempts to remain abstinent. There will be a contrasting scene when two persons try to

remain abstinent in high-risk situations. For example, Persons A and B encountered high-risk situations, such as parties where people are consuming alcohol. "A" is able to abstain from drinking at the party because he or she has learned how to cope with such situations, and he or she feels capable of carrying through with his or her intention not to drink alcohol. Each successful episode of abstinence reinforces his or her sense of self-efficacy, causing him or her to feel more capable of abstaining in subsequent situations. "B" lacks a satisfactory coping response. The actual consumption of alcohol is not what leads to a relapse, but, rather, his or her interpretation of the act of drinking as a sign of loss of self control.

Thus, when "B" enters a high-risk situation, he or she feels incapable of staying away from alcohol because of his or her low sense of self-efficacy. A compelling expectation that alcohol will have a positive mood-altering effect adds to his or her low sense of self-efficacy and leads him or her to take the first drink.

The positive sensations that the drug produces further undermine 'B's resolve, but cognitive factors enter at this point in the process as well. Having violated the self-imposed rule of remaining abstinent, "B" now is subject to the abstinence violation effect, a sense of loss of control over one's behaviour that has an overwhelming and demoralizing effect. Thus, 'B's self-efficacy is further eroded, initiating a down-ward spiral trend, which eventually ends in renewed drug dependence.

Eysenck's Personality Theory

Hans Eysenck, a trait theorist (1916-1997), defined personality as the sum total of the actual or potential behaviour pattern of the organism, as determined by hereditary and environment and traits as enduring characteristics within individual that determines his or her behaviour. Employing factor analysis he concluded that, traits can be subsumed under three basic types:

- (1) Introversiion-Extraversiion
- (2) Neuroticism
- (3) Psychoticism

EMPIRICAL EXPLANATIONS AND VARIABLES ON SUBSTANCE ABUSE

Mood Alteration and Substance Abuse

Studies suggest that one of the cardinal psychological motives for abusing drug is to alter mood. Drug use is therefore reinforcing either by enhancing positive mood or by eliminating negative mood. Early study on this (e.g. Conger, 1991) indicated that alcohol impairs avoidance learning, which is mediated by anxiety. Subsequent findings indicate that alcohol produce its tension-reducing effect by altering cognition and perception (Curtin, Lang, Patrick, & Strizke, 1998); Steele & Josephs, 1990). If a distraction is present, attention will be diverted to it instead of being focused on worrisome thoughts, where no distractions are present, the intoxicated person will focus on his or her limited processing capacity on unpleasant thought and may even become more depressed while drinking.

Another situational variable in the tension reducing effects of alcohol is the temporal relationship between alcohol consumption and stress. Empirical evidence indicates increases in life stress precede relapses in reformed alcoholics (Brown, Vik, Mcquaid, Patterson, 1990). However, some scholars (Davison & Neale, 2001) posit that people use alcohol after stress not because it reduces distress directly but because they expect it to reduce their tension. Studies indicate that people who expect alcohol to reduce stress and anxiety are addicts (Rather, Goldman, Roehrich, & Branick, 1992), Tran, Haaga, & Chambles, 1997). Furthermore, the expectation that drinking will reduce anxiety increase drinking, which in turn makes the positive expectancies ever stronger (Smith et al, 1995). Other research shows that positive expectancies about a drug's effect predict increased drug use in general (Stacy, Newcomb, & Bentler, 1991).

Studies also show that some use drugs to reduce negative affect while others use drug when they are bored or under-aroused to increase positive affect (Cooper, Frone, Russel, & Mudar, 1995). In both cases drug use reflects a failure of other means of coping with emotional states (Davison & Neale, 2001).

Beliefs about prevalence and risks on substance abuse

The extent to which a person believes a drug is harmful and the perceived prevalence of use by others are two other psychological variables correlating with substance abuse. A study by Kozel & Adams (1986) reported that marijuana use peaked in 1978 when almost 11% of high school seniors reported daily use. At that time only

12% of seniors believed there was risk associated with occasional use, and 35% believed there was risk with regular use. Whereas in 1985, 5% of seniors reported daily use, 25% of high school seniors believed marijuana was harmful if used occasionally and 70% believed it was harmful if used regularly. These findings indicate that as beliefs change so does behaviour. The dramatic increase in marijuana use in the 1990s was mainly among those adolescent who believed the drug was harmless (USDHHS, 1994). In the same vein, many smokers do not believe that they are at increased risk for cancer or heart disease (Ayanian & Cleary, 1999). Also, alcohol and cigarette are use more regularly used by people who over-estimate the frequency with which other people abuse these substances (Jackson, 1997).

Personality and Substance abuse

Personality variables help to explain why certain people are drawn to substance abuse. In this regard, researchers have studied high levels of negative affect and an enduring desire for arousal and increased positive affect. In one study (Davison & Neale, 2001), kindergarten children were rated by their teachers on several personality traits and were followed up several years later. Anxiety (e.g., worries about things, fear of new things or situations) and novelty seeking (e.g., restlessness, forgetting) predicted the onset of getting drunk, using drugs, and smoking (Killen et al, 1997). Drug use in general has been found to correlate with anti-social personality disorder (Ball, Carroll, & Rounsaville, 1994). Rebelliousness and high levels of aggression have been found to be related to substance abuse (Anderson et al, 1997; Davison & Neale, 2001). Lavelle, Hammersley, & Forsyth, 1991) showed that drug user were shrewd, tough-minded, anxious, streetwise and experience-seeking. Further, Ekstrand (1985) reported that drug users seemed to be immature, compulsive and possess low self-esteem and are incapable of managing failure. Also Shedler & Block (1990) indicate that frequent drug users were maladjusted, socially alienated, and deficient in impulse control and manifestly distressed. Conversely, abstainers were observed to be anxious, emotionally constricted and lacking in social skills.

With respect to extraversion, findings on its relationship with substance abuse have been mixed. Eysenck's (1967) arousal theory categorized it on the bases of stimulation, excitement and gregariousness and these are potent factors in predicting drug use. Furthermore, Oluwatelure (1995) found a positive relationship between extraversion and alcohol abuse. However, Ifeagwazi's (2005) study failed to find a positive relationship between extraversion and drug use. The researcher explained the result by suggesting that extraversion is not a pronounced personality trait that distinguishes drug users from non users. However, it seems that extraversion is a more positively valued personality trait (than introversion) and thus is not likely to be higher among drug users than in the general population.

With respect to neuroticism, studies have found a strong relationship between it and substance abuse (Oluwatelure, 1995; Ifeagwazi; 2005). Neuroticism reflects individual differences in the extent to which a person perceives and experiences the world as problematic, threatening and distressing. High scorers on this scale experience various negative emotions such as anxiety, guilt, sadness, and hostility. They tend to feel inadequate and inferior and report elevated level of stress and indicate that they cope poorly with stress, causing pronounced emotional liability (Watson, Clark, & Harkness, 1994).

The experience of negative unpleasant states, has been linked with alcohol and drug use (Cooper et al, 1992; Killen et al, 1997; Ifeagwazi; 2005). Pharmacological evidence indicates that opiates and tranquilizers are used more frequently by anxious and neurotic persons to reduce their emotional distress. In fact, emotional instability including frustration, anxiety, depression and unhappiness has become crucial in etiological explanations of substance abuse (Kuna & Bande, 1993) for instance; anger or unhappiness is related to cigarette smoking and alcohol use.

With reference to psychoticism, studies have repeatedly shown a positive relationship between psychoticism and substance abuse (Oluwatelure, 1993; Lavelle et al, 1991; Ifeagwazi; 2005). High scorers on the psychoticism scale exhibit some personality and behavioural traits e.g., aggressiveness, impulsivity, egocentrism; and impersonal feelings and anti-social tendencies (Carey & dilalla, 1994); these are linked with the initiation and maintenance of drug use (Anderson et al, 1997).

Substance Abuse and Psychiatric Illness

Generally, all the psychological factors that induce individuals to abuse substances invariably lead to psychiatric disorders. For example, we had earlier indicated how amphetamine and other psycho-stimulants can

induce amphetamine psychosis that resembles paranoid schizophrenia in patients that abuse these substances. Furthermore, abuse of hallucinogens e.g. lysergic acid diethylamide (LSD) can lead to conceptual distortion of time and distance, impair rational judgment and loss of ability to separate fantasy and fact, a flash back of frightening experiences, and to death from suicide, among other physical harmful effects (Egbuchulam,2000).

A study conducted by Baroffka (1966) showed that 14.5% of all male (and 0.7% of all female) admissions in the hospital studied had a history of Indian hemp smoking. Studies had a history of Indian hemp smoking. Studies conducted about 30years later indicate an increase in the incidence (Ikwuagwu, Nafziger, & Isichei, 1993; Obot & Olaniji, 1991). The National Drug Law Enforcement Agency (NDLEA) report in 1992 showed that cannabis accounted for about 66% of drug related cases in Nigerian hospitals (NDLEA, 1992). Earlier, Adelekan & Adeniran (1991) indicated that cannabis accounted for 28.2% of patients treated for psychiatric problems at Aro Neuro-psychiatric Hospital in Ogun State between June 1985 and October 1986. Patients with cannabis related or alcohol related cases shoe schizophrenic symptoms (Ohaeri & Odejide, 1993) and up to 67% relapse rate has been reported in such cannabis related cases (Adelekan & Adeniran, 1991).

Furthermore, the statistics of tobacco-related mortality world wide are devastating. It is a known or probably cause of about 25 diseases (World Health Organization, 2001). Findings from Eferakeya's (1984) study indicated that 68% of the attempted suicides reported in the study involved ingestion of drugs while 20% of the cases involved the ingestion of chemicals. Meanwhile, White et al, 2002 have shown that self-reports of substance abuse by individuals are generally accepted as reliable and valid measures or indicators of substance use and abuse.

HYPOTHESES

1. There will be no statistically significant difference between psychiatric patients and non-psychiatric patients on psychological factors that lead to substance abuse.
2. There will be no statistically significant difference between high neuroticism and low neuroticism groups on substance abuse among psychiatric patients.
3. There will be no statistically significant difference between high psychoticism and low psychoticism groups on substance abuse among psychiatric patients.

METHOD

PRELIMINARY (PILOT) STUDY

A pilot study was conducted with twenty participants (10 psychiatric and 10 non-psychiatric patients) drawn from the psychiatric Hospital Eket and the non-psychiatric sample was mainly participants resident in Uyo metropolis. Their ages range from 17 - 50 years and comprised 10 male and 10 female volunteers.

Instruments

The Psychological Correlates of Substance Abuse Index (PCSAI) consisting of 33 items generated from literature review was developed by the researcher and used in the pilot study. These items were vetted on a 2-point scale as follows: '2'- 'suitable', '1' – 'not suitable' by each of the following persons: clinical psychologists, psychiatric nurses, psychiatric patients and undergraduate students of the University of Uyo. Four items rated "not-suitable" were discarded, thus, 29 items made the draft version of the scale.

The 20 participants' responses were scored and keyed into a computer imbued with the statistical package of the social sciences (SPSS) for reliability analysis. Two days (one day for each setting) was used and the item-total correlation yielded 22 reliable items as the cut-off point adopted was 0.30 coefficients (Kline, 1994). Thus, 22 items made the final version of the scale with a Cronbach alpha Co-efficient of 0.87.

MAIN STUDY

Participants

The study made use of psychiatric patients and non-psychiatric patients. The psychiatric patients were drawn from the Psychiatric Hospital Eket and Uyo Prisons and the non-psychiatric participants were drawn from Eket and Uyo towns, all in Akwa Ibom State.

One Hundred And Nineteen (119) psychiatric patients participated initially but 13 dropped in the process, thus remaining 106. The 106 participants comprised 58 in-patients and 48 out-patients (74 males and 32 females). Their ages ranged from 16 to 65 years, with a mean of 23.87 years. The non-psychiatric participants (77 males

and 33 females) were 110 in number, drawn on the bases of the demographic variables of the psychiatric participants. Their ages ranged from 17 to 60 years with a mean age of 23.83 years.

The participants were all volunteers, approached individually and solicited to partake in the study by the researcher and her assistants. Data from the non-psychiatric participants were utilized only for hypothesis one while those from the psychiatric patients were used for the whole study.

Instruments The instruments used in the study comprised three questionnaires stapled together and arranged into four sections-A,B,C, and D. section A deals with demographic variables, section B is the neuroticism scale, section C is the psychoticism scale while section D is the Psychological Correlates of Substance Abuse Index (PCSAI) (see Appendix 1 A-D).

The Neuroticism and Psychoticism Scales

These scales were developed by Eysenck and Eysenck (1975) and were standardized for Nigerian use by Eysenck, Adelaja, & Eysenck (1978). They are arranged in a “yes” or “no” format and participants are classified into high or low group based on their scores. The 23 items neuroticism and 25 items psychoticism scales are reliable and validated. The Nigerian norm provided by Eysenck et al, 1978) are as follows: Males 6.43; females 8.42 scores for items scored ‘1’ point for a ‘yes’ response in Neuroticism, while the 25 items psychoticism norms is Males – 4.6, Females -2.97 for the first 14 items scored ‘1’ point for a ‘yes’ responses while 11 other items carry ‘1’ point for a ‘no response’.

The Psychological Correlates of Substance Abuse Index (PCSAI)

This scale was developed by the researchers with the assistance of others. It has 22 items and is arranged in a 5-point Likert format of ‘strongly agree’, ‘agree’, ‘undecided’, ‘disagree’, and ‘strongly disagree’. The items are scored 5 points for ‘strongly agree’, to 1 point for ‘strongly disagree’ for positive items (1,2,3,5,6,8,9,10,12,13,14,15,16,17,18,19,20,21,22,15,26,27 and 28) while 1 point for ‘strongly agree’ to 5 points for ‘strongly disagree’ are awarded for negatively framed items (items 4,7, and 11). The total possible score in the scale is 110 and the lowest possible score in the scale is 22. The baseline score in the scale is 65 derived from where the mean, median and mode converged. Score 65 to 110 indicate ‘high’ while scores 22 to 64 indicate ‘low’ psychological correlates of substance abuse.

The validation study by the researcher yielded a cronbach alpha coefficient of 0.87 and the scale has both content and face validity.

Procedure

The researchers sought and obtained permission from the authorities of Psychiatric Hospitals in Eket and Uyo Prisons. The research was undertaken on clinic days in the hospital, where out-patients come in large number to seek medical and psychiatric assistance in the hospitals. Four weeks was used for the study.

Armed with demographic variables of the psychiatric hospital patients, the researchers and their assistants approached the non-psychiatric participants individually and solicited for their cooperation in partaking in the study. Two weeks was used in the study. Generally, the researchers appreciated the participants and research assistants and took the instrument home for scoring and analysis.

Design / Statistics

The design adopted in the study is a survey-cum-correlational design. The design did not entail any experiment or the manipulation of any independent variable. The design will permit the assessment of psychological correlates of substance abuse based on self-report and this has empirical support (White et al, 2002), showing that self-reports are generally accepted as reliable and valid measures or indicators of substance use and abuse.

The chi-square (X^2) statistic and percentages was used in data analysis. The rationale for the choice of the chi-square is that the data was in nominal form and was intended to find relationship and not causality. As earlier indicated, participants were categorized into low and high scorers in the three scales based on the norms, such that nominal scaling could be performed on the data. This permitted the use of a 2x2 contingency table for the neuroticism and psychoticism scales. The PCSAI was used as a dependent measure of the neuroticism and psychoticism scales. Dunn (2001) indicated that nominal scaling can be performed on data that were collected using another scale.

RESULTS

The chi-square statistic and percentages were used in data analysis and they are presented as follows:

TABLE 1: A 2 × 2 CONTINGENCY TABLE OF THE PSYCHOLOGICAL CORRELATES OF SUBSTANCE ABUSE SCORES FOR PSYCHIATRIC AND NON-PSYCHIATRIC PARTICIPANTS

SUBSTANCE ABUSE SCORES	PSYCHIATRIC PATIENTS	%	NON-PSYCHIATRIC PATIENTS	%	TOTAL	%
LOW	29 (7.58)	27.36	69 (7.30)	62.73	98	45.37
HIGH	77 (6.29)	72.64	41 (6.06)	37.27	118	54.63
TOTAL	106		110		216	

($X^2 = 27.23$, $df = 1$, $p < 0.001$, $O =$ observed frequencies, the expected frequencies are in parentheses.)

From Table 1, 29 psychiatric patients scored low in the psychological correlates of substance abuse scale (PCSAI) representing 27.36% while 77 psychiatric patients scored high on the same scale, representing 72.64%. Similarly, 69 non-psychiatric patients (62.23%) scored low on the PCSAI while 41 of their counterparts (37.73%) scored high on the same scale. Generally, 98 participants (45.37%) scored low on the PCSAI while 118 participants (52.63%) scored high on the PCSAI. From the result in Table 1, there is a statistically significant difference between the psychiatric group and the non-psychiatric group in the PCSAI, thus, hypothesis 1, which predicted no difference between the two groups is rejected ($X^2 = 27.23$, $df = 1$, $p < 0.001$). The psychiatric group tends to score higher than the non-psychiatric group on PCSAS, i.e., the psychiatric group tend to abuse more psychoactive substances than the non-psychiatric group.

TABLE 2: A 2 × 2 CONTINGENCY TABLE FOR NEUROTICISM ON THE PSYCHOLOGICAL CORRELATES OF SUBSTANCE ABUSE FOR PSYCHIATRIC PARTICIPANTS

SUBSTANCE ABUSE SCORES	LOW NEUROTICISM	%	HIGH NEUROTICISM	%	TOTAL	%
LOW	18 (12.23)	37.5	9 (14.77)	15.52	27	27.52
HIGH	30 (35.77)	62.5	49 (43.27)	84.48	79	72.48
TOTAL	48	58			106	

($X^2 = 6.66$, $df = 1$, $p < 0.01$, $O =$ observed frequencies, the expected frequencies are in parentheses.)

From Table 2, 18 patients (37.5%) in the low neuroticism group scored low while 30 patients (62.5%) of their counterparts scored high in the psychological correlates of substance abuse scale (PCSAI). Similarly, 9 patients (15.52%) on the high neuroticism group scored low on the PCSAI while 49 of their counterparts (84.48%) scored high on the same scale. Generally, 27 participants (25.47%) scored low on the PCSAI while 79 participants (74.53%) scored high on the PCSAI. From the result in Table 2, there is a statistically significant difference between the low neuroticism group and the high neuroticism group in the PCSAI, thus, hypothesis 2, which predicted no difference between the two groups is rejected ($X^2 = 6.66$, $df = 1$, $p < 0.01$). This indicates that the high neuroticism patients scored significantly higher in the PCSAI than their low neuroticism counterparts, i.e. high neuroticism patients tend to abuse psychological substances more than the low neuroticism patients.

TABLE 3: A 2 × 2 CONTINGENCY TABLE FOR PSYCHOTICISM ON THE PSYCHOLOGICAL CORRELATES OF SUBSTANCE ABUSE FOR PSYCHIATRIC PARTICIPANTS

SUBSTANCE ABUSE SCORES	LOW PSYCHOTICISM	%	HIGH PSYCHOTICISM	%	TOTAL	%	
LOW	14 (11.52)	37.84	19 (21.48)	27.54	33	31.13	
HIGH	23 (25.48)	62.16	50 (47.5)	72.46	73	68.87	
TOTAL	37		69		106		

($X^2 = 1.20$, $df = 1$, $p > 0.05$, $O =$ observed frequencies, the expected frequencies are in parentheses.)

From Table 3, 14 patients in the low psychoticism group scored low in the psychological correlates of substance abuse representing 37.84% while 23 of their counterparts scored high on the same scale, representing 62.16%. Similarly, 19 patients in the high psychoticism group (27.54%) scored low on the PCSAI while 50 of their counterparts (72.46 %) scored high on the same scale. Generally, 33 participants (31.13%) scored low on the PCSAI while 73 participants (68.87 %) scored high on the PCSAI. From the result in Table 3, there is a no significant difference between the low psychoticism group and the high psychoticism group in the PCSAI, thus, hypothesis 3, which predicted no difference between the two groups is confirmed ($X^2 = 1.20$, $df = 1$, $p > 0.05$). This implies that the high psychoticism patients tended to score more than the low psychoticism patients in the PCSAI.

DISCUSSION

The first finding (Table 1) indicates that there is a statistically significant difference between the psychiatric and the non-psychiatric population on the psychological correlates of substance abuse. An examination of Table 1 shows that 72.64% of the psychiatric participants scored high on the psychological correlates of substance abuse index (PCSAI) while 27.36% of their counterparts scored low on the PCSAI. Similarly, 62.23% of the non-psychiatric participants scored low on the PCSAI as against 37.73% of their counterparts that scored high on the same scale. Thus, the significant difference obtained in the result was based on the high scores of the psychiatric patients on the PCSAI and the low scores of the non-psychiatric patients on the PCSAI. This means that psychiatric patients tend to abuse psychoactive substances than non-psychiatric patients. This finding is in line with empirical findings (e.g., Ikwuagwu et al, 1993; Obot and Olaniji, 1991; NDLEA, 1992) which indicated that abuse of substances account for about 66% of drug-related ailments in Nigerian hospitals. Specifically, the finding is consistent with that of Adelekan and Adeniran (1991) which indicated that psychoactive substances e.g., cannabis, alcohol account for a majority of cases treated in the psychiatric hospitals. Even though the research did not compare psychiatric patients with non-psychiatric patients, this present finding however confirms their findings because high rate of substance abuse was indicated among psychiatric patients used in the study as against their non-psychiatric counterparts.

The second finding showed that there is a statistically significant influence of neuroticism on substance abuse ($X^2 = 6.66$, $df = 1$, $p < 0.01$), with the high neuroticism group scoring high on the PCSAI than the low neuroticism group. An examination of Table 2 showed that 84.48% of high neuroticism group scored high on the PCSAI against 15.52% of their counterparts who scored low on the scale. Similarly, 62.50% of low neuroticism group scored low on the PCSAI as against 37.50% of their counterparts who scored low on the scale. This finding is consistent with those of Oluwatelure (1995) and Ifeagwazi (2005) who found a strong relationship between neuroticism and substance abuse. Empirical evidence indicates that high scorers on neuroticism experience various negative emotions including anxiety, depression, anger, shame, guilt, sadness, and hostility and these negative unpleasant states have been linked with alcohol and drug use (Cooper et al., 1992; Killen et al., 1997; Ifeagwazi, 2005). This may be the reason high neuroticism group scored higher on the PCSAI than the low neuroticism group, which experience less of the unpleasant negative states.

The third finding (Table 3) indicates that there was no significant difference between the two psychoticism groups on substance abuse. This finding is contrary to the finding of Oluwatelure (1993); Lavella et al (1991) and Ifeagwazi (2005) who found a positive correlation between psychoticism and substance abuse. Empirical findings indicate that high scorers in psychoticism exhibit some personality and behavioural traits e.g.,

aggressiveness, impulsivity, egocentrism, and antisocial tendencies (Carey & Dilalla, 1994) and these traits are linked with the initiation and maintenance of drug use (Anderson et al., 1997). However, an examination of Table 3 indicates that 72.46% of the high psychoticism group scored high on the PCSAI as against 27.54% of their counterparts who scored low on the PCSAI. Similarly, 62.17% of low psychoticism group scored high on the PCSAI as against 37.83% of their counterparts who scored low on the PCSAI. But these observed differences were not strong enough to affect a statistically significant difference between the two groups

It seems that psychoticism was not significant in the study because the participants were all psychiatric patients who have been shown to be chronic drug users. Thus, whether patients are high or low scorers in psychoticism, they abuse psychoactive substances equally and this may account for the non-significance of psychoticism in the study.

Practical Implications of the Findings

This study has far-reaching implications. The first finding that there exists a significant difference between the psychiatric and the non-psychiatric groups regarding substance abuse implies that psychiatric patients abuse more substances than the non-psychiatric population. But it is instructive to note that psychiatric patients are part and parcel of the general population. They (especially the out-patients) still reside where the general population lie and even the in-patients will eventually leave the psychiatric hospitals to their respective homes. Thus, the widespread availability of psychoactive substances is a crucial factor in substance abuse. In the psychiatric hospitals psychoactive substances are highly controlled such that these patients do not have access to them but after discharge they go back to these substances because of their widespread availability in the general population. This may account for the high rate of relapse after discharge (over 67% of cases) (Adelekan & Adeniran, 1991). Therefore, there is the need for family members and care-givers to ensure that patients are closely monitored and shielded from psychoactive substances as they have the propensity for abusing these substances.

The second finding shows that neuroticism exerts a significant influence on substance abuse among psychiatric patients. The implication of this finding is that people that are high on neuroticism have the increased risk for abusing psychoactive substances to reduce their emotional distress. Neuroticism is exemplified by emotional instability and it is marked by frustration, anxiety, depression, unhappiness, sadness, hostility, anger, shame and guilt, among others and these negative states are related to substance abuse. This entails that people (both psychiatric and non-psychiatric) should be screened for neuroticism and those that score high on it should be closely monitored regarding the abuse of psychoactive substances as neuroticism has been shown to correlate highly with substance abuse. With particular reference to psychiatric patients, family members and care-givers should ensure that these patients do not have access to substances, especially marijuana and alcohol, as they have the propensity to abuse these substances.

The finding regarding the non-significance of psychoticism on substance abuse implies that all psychiatric patients irrespective of their psychoticistic status abuse psychoactive substances. This calls for proper monitoring of psychiatric patients (both in-patients and out-patients) as well as people whose mental health status have been negatively affected by physical, emotional, and environmental stresses. This is because such people have the tendency to abuse psychoactive substances in the misguided belief that these substances will enable them to cope with life's stresses. With particular reference to psychiatric patients, family members and care-givers should ensure that these patients are not exposed to psychoactive substances so that they do not abuse these substances and relapse into drug. This will ensure the sustenance of treatment gains.

Generally, family members and care-givers should wean patients away from drugs and introduce them into other methods of managing stress including relaxation, exercise and recreation, bed rest, meditation, time management and effective prioritizing, among others.

Limitations of the Study

This study has its short-comings and includes the following: Attrition of participants. Psychiatric illness is a very severe illness that affects all facets of the patient's life including perseverance. Accordingly, many patients that volunteered to partake in the study gradually withdrew because of their mental condition. Further, some of the participants who would have participated in the study were illiterates and so were excluded. Also, the problem of finance affected the smooth running of the study because a longer time was spent on each patient to

complete the instrument and this made the completion of the study to span many months than what was anticipated.

Furthermore, the researcher used the questionnaire method for the study instead of administering live psychoactive substances that could have corroborated what the participants indicated in the questionnaire.

Suggestions for Further Study

Future researchers should try to corroborate what participants indicate in the questionnaire with actual presentation of the substances to participants. Furthermore, very large sample should be used so that attrition does not affect the study adversely. Also, attempts should be made by future researchers to develop validated vernacular versions of the instruments so that participants that do not understand English Language could participate in the study. Furthermore, future researchers should compare the psychiatric and non-psychiatric population on the various dimensions of the study. Also, future researchers should use other independent variables e.g., gender, socio-economic status, marital status, and educational status, among others in their researches.

Recommendations

On the bases of the findings of the present study, the following are recommended:

There should be a proper screening of patients on personality and behavioural traits before admission in the hospital;

There should be a proper screening of people on personality and behavioural traits before admission to schools or employment to know the kind of personality and behavioural traits they are made-up of;

Persons that are of personality and behavioural traits (e.g., neuroticism and psychoticism) which are highly implicated in the abuse of psychoactive substances should be closely monitored and placed in environments that they will stay away from drugs;

The government and the society should place restrictions on the accessibility, availability, sale, and drinking or using of psychoactive substances. There should be a legal limit (i.e., the age of twenty-one years) before one can handle psychoactive substances;

Parents, family members, and care-givers should be real models (and not double-standard models) regarding the usage of psychoactive substances. Children and adolescents and psychiatric patients should be shielded from psychoactive substances;

Alcohol Anonymous and groups against other psychoactive substances should be established in schools, colleges, universities and hospitals to bring the dangers of these substances to the fore and people should be encouraged to stay away from drugs.

Generally, all hands must be on deck to fight the war against the abuse of psychoactive substances.

SUMMARY AND CONCLUSION

This study investigated the psychological correlates of substance abuse among psychiatric patients. 106 psychiatric volunteers drawn from the Psychiatric Hospital Eket and Uyo Prison were used in the study. They comprised 58 in-patients and 48 out-patients (74 males and 32 females), whose ages ranged from 16 to 65 years. They were also 110 non-psychiatric participants (77 males and 33 females) drawn from Eket and Uyo metropolises. Their ages range from 17 to 60 years. Data from the non-psychiatric participants were to determine the extent to which the psychological correlates of substance abuse exist within the general population.

The researcher developed the psychological correlates of substance abuse index (PCSAI) and used it in the study. It is a 22-item instrument with a cronbach alpha coefficient of 0.87 and both content and face validity. In addition, the neuroticism and psychoticism scales of the EPQ were used in the study. These scales are both reliable and valid for Nigerian use. The study tested three hypotheses and adopted a survey-cum-correlational design. The chi-square statistic was used for data analysis. The first finding indicated a significant difference between the psychiatric and the non-psychiatric groups on substance abuse ($X^2 = 27.23$, $df = 1$, $p < 0.01$). The second finding showed a significant influence of neuroticism on substance abuse ($X^2 = 6.66$, $df = 1$, $p < 0.01$). The last finding did not show a significant relationship between psychoticism and substance abuse among the psychiatric population. The findings were discussed in line with empirical findings and current realities,

practical implications of the findings were made, the limitations of the study were indicated and the suggestions for future researchers and recommendations were made.

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