

Assessment of five personality traits as predictors of alcoholism among patients in psychiatric unit

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Abstract

The study investigated the big five personality trait dimensions as predictors of alcoholism among patients with substance induced psychosis in Federal Medical Centre Makurdi. Questionnaire consisting of the Big Five Personality Inventory and Mac Andrews Alcoholism Scales were used to measure 271 clients comprising of 141 males and 130 females diagnosed with substance induced disorders. Five hypotheses were formulated relating to the big five personality traits. Results show that four of the five personality dimensions including extraversion ($\beta=4.402, p < 0.05$), agreeableness ($\beta=14.160, p < .001$) neuroticism ($\beta=6.013, p < .05$), openness ($\beta=6.746, p < .001$) significantly predict alcoholism. But conscientiousness personality dimension did not predict alcoholism ($\beta= 1.685, p > .05$). Based on these findings it is necessary and important to profile the personality of alcoholics for the purpose of psycho-education and lifestyle modification.

Keywords: Openness, conscientiousness, extraversion, agreeableness, neuroticism, alcoholism and psychiatric patients.

INTRODUCTION

The central philosophical debate over mental illness is not about its existence, but more about its definition and aetiology (Murphy, 2005). Notwithstanding, according to Korchin (2004) mental disorder or mental illness is a psychological or behavioural pattern generally associated with subjective distress or disability that occurs in an individual, and which is not a part of normal development or culture. According to *World Health Organisation (2000)* over a third of people in most countries report meeting criteria for the major categories of mental disorder at some point in their lives. But there is so far no universal consensus to exact cause of most mental illnesses. Scientific evidence has proven that alcoholism is a heterogeneous entity arising from multiple aetiologies (Insel & Wang, 2010). These factors also influence initial use of more socially disapproved drugs, such as marijuana, but personality factors assume a more important role.

Fundamentally, the interactions of environmental factors are recognized to precipitate manifestation of some mental illness in some population of human beings. Commonly is the use of alcohol. Alcohol has a long history with man and with variation in consumption across culture. This is because individuals drink differently both in terms of type and quantities as well as drinking differently at different times in their lives, all the same, the negative

consequences of alcohol use and abuse affect not only the drinker alone, but also the community and even the society at large.

Also known as alcohol use disorder (AUD) and alcohol dependence syndrome, alcoholism is a broad term for any drinking of alcohol that results in problems (Littrell, 2014). Alcoholism is the excessive dependence on or addiction to alcohol usually to the point that the person's physical and mental health is threatened or harmed. Alcoholism has the potential of affecting an individual's physical and social well being yet it is soaring especially among youths in many countries including Nigeria. To arrest this public health challenge, in Benue State, laws are enacted backed by public health campaign and education on the negative effect of substance abuse in general and alcohol abuse in particular. Yet, there is a noticeable increase rate of alcohol use leading to alcoholism among some people.

Personality traits have been linked to many abnormal behaviours including alcoholism (Comeau, Stewart & Loba, 2001; Wise, 1988; Woick, Stewart, Phil, & Conord, 2009). Particularly, studies have assessed the five-factor personality traits in relation to alcoholism. The Five-Factor Model of personality consists of five traits. These traits include neuroticism, extraversion, openness, conscientiousness and agreeableness. Neuroticism is characterized by a tendency to experience

negative emotions. Extraversion is characterized by being social, energetic, and adventurous. Openness to experience relates to curiosity, intellect and creativity. Conscientiousness entails responsibility, carefulness, and conforming to societal norms. Agreeableness refers to avoiding conflict, being sensitive to social cues, and being considerate.

Investigating neuroticism, family history and alcohol use among older men, Locastro, Spiro, Monnelly and Ciraulo (2000) found that a good number of daily alcohol intake possess neurotic personality trait. In other studies, prominent models of contemporary psychology postulated that individuals prone to alcohol abuse are characterized by low extraversion (Trull & Sher, 1994), agreeableness (Flory, Lynam, Milich, Leukefed, & Clayton, 2002; Martin & Sher, 1994), as well as high neuroticism (Sher, Bartholow & Wood, 2000; Trull & Sher, 1994) and openness (Flory et al; Sher et al., 2000).

Ruiz, Pincus and Dickson (2003) used the five factor model domains and found that neuroticism and conscientiousness were linked to alcohol related behaviour, but did not find these domains associated with addictive behaviour. Ruiz, Pincus and Dickinson (2003) further reported that some facets of agreeableness, but not the domain, were associated with drinking. In a similar study, Martin and Sher (1994) concluded that familial risk for alcohol was

positively associated with openness and negatively associated with agreeableness. On their part, Dordi Nejad and Shiran (2011) found that conscientiousness was negatively correlated with drug usage. However, openness to experience had no correlations with drug usage.

Brooner, Herst, Schmidt, Bigelow, and Costa, (1993) compared a sample of alcohol abusers with normative samples by using the NEO-Personality inventory, and found that higher levels of neuroticism and lower levels of agreeableness and conscientiousness were noted. Results from other studies suggest that there is a significant impact of impulsivity on alcohol use (Colder & Chassin, 1997; Hair & Hampson, 2006; Von Diemen, Bassani, Fuchs, Szobot & Penchansky, 2008). However, when additional personality factors such as neuroticism and extraversion were accounted for, impulsivity no longer proved to be a significant predictor (Kuntshe, Knibbe, Gmel & Engel, 2004). Also, findings showed that personality type, extraversion with basic characteristic of sensation seeking relates to drinking and alcohol abuse behaviour (Janowsky, Hong, Morter & howeet al.,1999). These findings are consistent with other studies that have reported that adolescents who exhibit a higher level of inhibition are less likely to drink while adolescents who tend to be more sensation seeking have a higher likelihood of drinking (Comeau et al., 2001;

Colder & Chassin, 1997).

Based on personality type, Sher and Trull, (1994) proposed three personality dimensions that they consider most relevant in the description of alcohol misuse. These are neuroticism/emotionality; impulsivity/disinhibition; and extraversion/sociability. These authors recognized the three-factor model to represent well the traits found in some literature to be associated with alcohol misuse. Sher and Trull (1994) findings indicate that impulsivity/disinhibition is strongly related to both pre-alcoholism and clinical alcoholism, whereas neuroticism/emotionality is related to clinical alcoholism and possibly to pre-alcoholism. Extraversion/sociability does not differ between clinical alcoholics, but has been found to be higher in pre-alcoholics (Jones, 1968; Sieber, 1981).

In another study, Wiley (2010) examined the relationship between personality, occupation and alcohol abuse among 700 males from the Terman life cycle study. He reported that agreeable and conscientiousness correlated negatively with later alcohol use and abuse. But extraversion and neuroticism correlated positively with later alcohol use and abuse.

Comprehensive models of personality, such as the Big Three or the Five Factor Model of personality have been utilized to succinctly characterize the personality profiles of heavy substance users. In terms of Big

Three Model, heavy users appear to score high on measures of psychoticism and neuroticism (Kilpatrick, Sutker, Roitzsch, & Miller, 1976; Rankin, Stockwell, & Hodgson, 1982; Sher, Bartholow & Wood, 2000). Nevertheless, some studies have shown alcoholics to have characteristic personality traits. These studies generally did not exclude patients with antisocial personalities.

Schuckit (1983) using the Eysenck personality inventory, initially found no personality difference in non-alcoholics sons of alcoholics when compared to non-alcoholic sons of non-alcoholics. Later at a follow up however, Schuckit, Klien, Twithell and Smith (1994) did find that those who ultimately became alcoholics had been more extroverted at baseline on the Eysenck personality inventory than those who did not.

From the following, it is hypothesized that:

- i. Extraversion personality trait will significantly predict alcoholism among psychiatric patients.
- ii. Agreeableness personality trait will significantly predict alcoholism among psychiatric patients.
- iii. Conscientiousness personality trait will significantly predict alcoholism among psychiatric patients.
- iv. Neuroticism personality trait will significantly predict alcoholism among psychiatric patients.
- v. Openness personality will

significantly predict alcoholism among psychiatric patients.

METHOD

Design

A survey research designed was adopted to examine the relationship between the big five personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness) and alcoholism among selected sample of psychiatric patients in the psychiatric unit of Federal Medical Centre Makurdi.

Participants

The participants for the study were drawn from in and out patients in the psychiatric unit of Federal Medical Centre Makurdi. The focus was on patients diagnosed for alcoholism. Therefore, a total of 271 patients consisted of 141 males and 130 females were purposely selected to take part in the study. The participants were drawn across different tribes and religions. Their age ranged was between 15-65 years with a mean age of 28.16 years.

Instruments

The data was collected using The Big Five

Personality Inventory developed by Costa and McCrae (1992). The Big Five Inventory has five subscales of Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience. It has a Cronbach test retest reliability coefficient of .85 and a mean convergent validity coefficient of .75 and .85.

On Mac Andrews Alcoholism Scale Gough and Heilbrun (1980) reported a discriminant validity coefficient of .90 by correlating MAS with the affiliate scale of adjective check list.

Procedure for Data Collection

The instruments were administered on the selected participants by the researcher and an employed research assistant who is a clinical psychologist trainee working in the psychiatric clinic of the Federal Medical Centre Makurdi. The data was collected within a period of 8 weeks. Permission for the study using these patients was sought and obtained from the Ethics and Research Committee in the hospital. Informed consents were obtained from the participants before questionnaires were administered on them. Regression analysis was used to test the hypotheses.

RESULTS

Table 1: Summary of Regression analysis showing influence of the five personality traits on alcoholism among psychiatric patients

Constant	unstandardized CoefficientB	standardized coefficient	β	t	P
Constant	126.881	10.187		12.46	0.00
Extraversion	.131	.070	.127*	2.10	<.05
Agreeableness	.265	.062	.224*	3.76	<.001
Conscientiousness	-.107	.082	-1.29	>.05	-.079
Neuroticism	-.144	.059	-.148	-2.45*	<.05
Openness	.191	.073	.157*	2.59	<.05

Key: * = P < 0.05

The result on table shows that personality traits of extraversion, agreeableness, neuroticism and openness significantly predict alcoholism among patients substance induced psychotic disorders.

DISCUSSION

Many studies investigating the big five personality factors in different parts of the world have proven that neuroticism, extroversion, openness, agreeableness and conscientiousness are important predictors of alcoholism. The findings of this study are consistent with some of these previous results.

Statistically, this study found that extraversion personality trait significantly predicts alcoholism. This result is essentially consistent with previous researchers who used the five factor correlates model and Eysenck personality questionnaire to reveal that people that ultimately become alcoholics have more extroverted personality traits(Charu,

Meenakshi, Sanjay & Bipin, 2010; Janowsky, Hong, Morte & Howe, 1998 Jackson & Matthew, 1988; Schuckit et al., 1994; Wiley, 2010). The significant relationship between extraversion and alcoholism is that, individuals who are extraverted are sociable and tend to sit out taking alcohol which eventually leads to alcoholism.

Similarly, findings have shown that people with neuroticism personality trait are significantly associated with alcoholism. This is similar to Ruiz, Pincus and Dickson (2003) report that neurotic traits are linked with alcohol abuse behaviours. Likewise, Brooner, Herst, Schmdt, Bigelow, and Costa (1993) discovered that high levels of neurotic personality traits predicting alcohol abuse using the NEO personality inventory.

The result equally predicts a relationship between agreeableness personality trait and alcoholism. This has corresponded with

Mendze and Walsh (2010) finding that agreeableness and conscientious traits were inversely related to any substance related disorders. But this is inconsistent with the findings of Walton & Roberts (2004) whose studies on self and observer groups on measures of agreeableness

Conclusion and recommendation

In conclusion, this study has supported previous studies that individuals' personality profile can influence their life style and manifestation of alcoholism. In view of the knowledge of individual personality trait link with alcoholism, it is pertinent that in psychological treatment of patients with substance related mental disorders; the patient's personality profile should be ascertained. This will help in employing appropriate behaviour modification technique(s) for successful clinical management which will include weaning them off from the maladaptive behaviour.

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Assessment of five Personality Traits as Predictors of Alcoholism Among Patients in Psychiatric Unit

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Assessment of five Personality Traits as Predictors of Alcoholism Among Patients in Psychiatric Unit

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