

INFLUENCE OF PERSONALITY TRAITS AND DEMOGRAPHIC FACTORS ON NUMBER OF RELAPSE AMONG TREATED ALCOHOLICS.

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Abstract

This study investigated influence of personality traits and demographic factors on number of relapse among treated alcoholics. Fifty participants (32 males and 18 females) were selected for the study from ESUT Teaching hospital Parklane, Enugu. They were already diagnosed, treated and had numbers of relapse in alcohol that consented to the study. Their mean age was 22.74 and SD was 3.35. The Big five inventory developed by John, Donahue and Kentle (1991) was used in assessing the domains of personality traits, grouped into five major domains, Mac-Andrew Alcoholism Scale (MAS) developed by Craig Mac-Andrew in 1965 and validated in Nigeria by Selemo (1995), was used in measuring the degree of excessive alcohol consumption and composite record of medical diagnosis based on DSM-V diagnostic criteria for alcohol relapse to establish relapse as well as the number of relapse. It was a cross-sectional survey and One-way ANOVA was used to test hypothesis one to five while Independent T-test was used to test hypothesis six and seven of the study variables. The result showed that openness to experience and agreeableness personality trait does not have significant difference on number of relapse in alcohol amongst treated alcoholics, agreeableness and conscientiousness personality trait does not have significant difference on number of relapse in alcohol amongst treated alcoholics, conscientiousness and neuroticism personality trait does not have significant difference on number of relapse in alcohol amongst treated alcoholics, neuroticism and extraversion personality trait does not have significant difference on number of relapse in alcohol amongst treated alcoholics, extraversion and openness personality trait does not have significant difference on number of relapse in alcohol amongst treated alcoholics, genders does not have a significant influence on number of relapse in alcohol among treated alcoholics, employment status does not have a significant influence on number `relapse in alcohol among treated alcoholics.

Key words: Personality traits, demographic factors, number of relapse, and treated alcoholics.

Introduction.

Alcohol is a drug. It is classified as a depressant, implying that it slows down vital functions resulting in slurred speech, unsteady movement, disturbed perceptions and an inability to react quickly. Drug reduces a person's ability to think rationally and distorts his or her judgment. Many factors are responsible to the attraction to the alcohol use, among them are: genetic factors, environmental, psychological and social reasons. Alcohol also has a social value, it is used for entertainment and it is used as a stimulant since it can give people feelings of confidence and fearlessness. Ndetei, Mutiso, Khasakhala, Odhiambo, Kokonya & Sood, (2004) attributed alcohol use to social dysfunctions and laxity in legal provisions and application. Alcohol addictive behaviour could also result from adverse experiences during childhood, mental illness, discord, violence, stressful family life, peer pressure and psychological complications (McGee, 1986, Crjeervaldsen, Byrvang, and Opjordsoen, 2000; Khan and Salman, 2003; Kirkcarladya, Siefenb, Surallb, and Bischoff, 2004; Labouvie). However, without alcohol dependence, alcohol has some inherent dangers that go with its consumption. Alcoholism has become a major psychological pathology in recent time. Alcohol consumption has health and social consequences via severe cognitive problems, social/ occupational impairment, intoxication, dependence, and other biochemical effects. Alcohol is the third most common cause of death in developed countries (Biomed and Mater, 2005). It has been reported that the use of drug during adolescence may "interfere with normal cognitive, emotional, and social development" (Guo, Hill, Hawkins, Catalono, and Abbott, 2002). In Nigeria, alcohol and other substance of abuse is now a household problem. To abuse alcohol means to use it in a way that poses a threat to the safety and wellbeing of the user, society or both. One of the most critical factors destroying children especially adolescence today is alcohol and drug abuse. It is a social malady contributing to rape, crime, academic under achievement, addiction, and numerous healths, mental health, and emotional disorders (Aquilano, 2008). Not all people who use alcohol abuse it, and not all people who abuse alcohol are suffering from alcoholism. For example, the individual who drives under the influence of alcohol poses a serious threat to both him/herself and others, but he/she may not suffer from alcoholism (Buskist and Gerbing, 1990). According to the DSM-V alcohol use disorder is defined as a cluster of behavioural and physical symptoms, which can include withdrawal, tolerance, and craving.

The World Health Organization estimates that there are 140 million alcoholics worldwide; among them over 76 million are currently affected by alcohol. One of the most distressing problems among alcoholic is the high rates of relapse to alcohol use following periods of abstinence. Worldwide, alcohol causes 1.8 million deaths (3.2% of total) and 58.3 million (4% of total) of Disability-Adjusted Life Years (DALYs).

Alcohol abuse has manifold significant social, economic, psychological and health implications. It results to chronic and acute health problems because of its direct toxic effects on organs, its intoxicating effects (accidents and injuries), and it is a dependency-producing substance Crime (UNODC, 2005). In Africa, the problem of alcohol has been a constant presence for years. Except where it is banned for religious reasons, large quantities of alcohol are still being brewed (Obot, 2000). However, regardless of improvement in technology,

large amounts of unprocessed and unhygienic alcohol are still being consumed, especially by the poor (WHO, 2004).

Relapse is a characteristic of addiction. People recovering from addiction often have one or more relapses along the way (Jellinek, 2002). Relapse is common, and it is anticipated, that people who are trying to overcome an addiction will go through one or even several relapses before successfully quitting. Relapse is even considered a stage in the cycle-of-change model, which expects that people will go through a process of avoiding, considering quitting, taking active steps to quit and then relapsing. Relapse, in relation to alcohol, is resuming the use of alcohol after one or more periods of abstinence. Sellah., Esther & Anne (2013) observed that despite the increase in demand in treatment and rehabilitation services in the country as indicated by the increasing number of centers, there was also a simultaneous increase in the number of relapse cases (at least 60%). This is attributed to the fact that drug addiction and alcoholism being a chronic disorder of the brain, the possibility of relapse exists. Also relapse in alcohol is associated with high economic burden; its prevention has become an important goal. NIHCE (2002) maintained that, relapse prevention and treatment adherence is very important, thus, for an individual who is alcoholic the chance of relapse while receiving continuous medication appear to be minimal. NIHCE (2002) outlined enormous consequences of relapse to include: high medical cost, family instability, low or loss of productivity, personal and cognitive malfunctioning etc. It was also shown that patients have poorer response to treatment in their subsequent relapse episodes as well as longer time to remission with each subsequent episode and this by extension imply longer staying on medication leading to economic burden which is devastating to the individual and the family. The risk factors include: lack of adherence to treatment, severe residual psychopathology, lack of insight, substance misuse and poor interpersonal relationships, it is however estimated that over 40% of relapse cases are caused by poor adherence to treatment (Adewuya, Owoeye and Erinforlarin, (2009). The risk of relapse for a person with alcoholism has been estimated at 4.5% per month and nearly 40% experience a relapse within the month following hospital admission (Adewuya, Owoeye and Erinforlarin, 2009).

Having established the fact of relapse among treated alcoholics, it will be very informative to study these patients of relapse. Who are they? What is their background? Many forms of personality constructs, investigative methods, and epistemic perspectives have been used to sharpen knowledge about personality and alcoholism. As often happens in any new area of research, the investigation of an initial question grows into many assorted questions (Sutherland, Schroeder and Tordella, 1950). In the investigation of personality and alcoholism, a question that has stayed with the science from early on, is uncovering the personality characteristics of the alcoholic. Mostly, these investigations have moved from attempts to find a definitive alcoholic character to looking at which personality traits seem to be more pronounced in samples of individuals with alcoholism when compared to established norms (Barnes 1980, Barnes 2000). Meanwhile certain personality traits have been shown to have a high tendency to alcohol and by implication relapse. According to Dorus and Senay, (1980); Skinner and Allen, (1982); Sher, Bartholow, and Wood, (2000) alcohol abusers scored higher on Neuroticism and showed more neurotic tendencies as compared to non-substance abusers. Neuroticism reflects level of emotional adjustment and instability. High N is associated with irrational ideas, reduced impulse control and poor management of stress (Costa and McCrae, 1992). However, the present study tends to focus specifically on personality and relapse in alcohol.

Personality constructs have been investigated in relation to alcoholism, mostly in the context of describing the cross-sectional personality trends of clinical alcoholics or understanding personality-based predisposition to alcoholism (Barnes, Murray, Patton, Bentler and

Anderson 2000). Some studies have directed this effort to the influence of personality traits on recovery (Fisher, Elias and Ritz, 1998, Bottlender and Soyka, 2003). The relationship of personality characteristics to different forms of substance abuse has drawn widespread attention (Cox, 1985; McGee, 1986; Tarter, 1988, Earlywine, 1995; Labouvie and O'Connar, Berry, Morrison, and Brown, 1999). However, the relationship between personality and drug use are highly complex because the range of personality dimension which have been postulated to exist and which have been hypothesized to influence drug use, is extremely broad (Cox, 1985) and the personality factors may influence the use of drugs at several levels. The notion that an individual's pattern of drug use is based, in part, on personality characteristics and/or psychopathology has received some clinical acceptance (Blatt, McDonald, Sugarman, and Wilber, 1984; Craig, 1984; Millmen, 1986, Mattoo, Varma, Singh, Khurana, Kaur, and Sharma, 2001). The present study will explore the influence of personality traits and demographic factors on number of relapse in alcohol among treated alcoholics.

1. RESEARCH QUESTIONS.

The following questions were answered in the study.

1. Will there be significant difference between openness to experience and agreeableness personality trait on number of relapse in alcohol amongst participants?
2. Will there be significant difference between agreeableness and conscientiousness personality trait on number of relapse in alcohol among participants?
3. Will there be significant difference between conscientiousness and neuroticism on number of relapse in alcohol among participants?
4. Will there be significant difference between neuroticism and extraversion on number of relapse in alcohol among participants?
5. Will there be significant difference between extraversion and openness to experience on number of relapse in alcohol among participants?
6. Will there be significant difference between male and female on number of relapse in alcohol among participants?
7. Will there be significant difference between unemployed and employed on number of relapse in alcohol among participants?

2. METHOD

2.1 Participants

Fifty participants (32 males and 18 females) were selected for the study from ESUT Teaching hospital Parklane, Enugu. The participants were admitted alcoholics that have relapsed up to three or more according to the medical records based on the remarks of the attending physician that diagnosed them as alcoholics and their being treated as alcoholics supported by the family case presentation. Their medical record noted that their diagnoses were based according to the DSM-V, Diagnostic Criteria. Their mean age was 22.74 and SD was 3.35. Their age ranged between 18-27 years with twenty five (53:19%). One participant is married (0.6%) and 49 unmarried (28.0%) of participants. 22 participants attended primary school (12.6%), 14 attended SSCE (8.0%), 4 attended NCE (2.4%) and 10 had OND (5.7%). 22 were unemployed (12.6%) and 28 were employed (16.0%).

2.2 Instrument

The following instruments were used for the study:

The Big five inventory (BFI) developed to assess the five dimensions of personality. The items are structured to reflect the five domains of personality traits, grouped into five major domains: Openness to experience, Conscientiousness, Extraversion, Agreeableness and

Neuroticism. These domains are sub-grouped into facets, and the facets contain different number of items.

Number of Relapse

The researcher used composite record of medical diagnosis based on DSM-V Diagnostic criteria for alcohol relapse to establish relapse as well as the number of relapse and to obtain a measure of level or extent of alcoholism or severe alcohol consumption using Mac-Andrew Alcoholism Scale (MAS).

Mac-Andrew Alcoholism Scale (MAS) was an objective rating scale to measure the degree of excessive alcohol consumption. It was a 49 item inventory designed to assess alcoholism which is the disorder or disease resulting from excessive use of alcoholic beverages.

2.3 Procedure

Fifty participants who were currently on admission were selected for the study. The researcher sought for and obtained permission from ethical board of the hospital and also created good rapport with the staff and patients. On the scheduled date the researcher went to the centre, sorted out the folders of treated alcoholics that have had relapse up to three times after the initial treatment who were on readmission. Afterwards, with the help of the staff, the selected participants were gathered in a hall where the researcher introduced himself and explained to them reason for the study. After obtaining their consent, the researcher with the help of some assistants distributed the questionnaires to them. After filling the questionnaires, the researcher with the help of some assistants collected them back. Among them, 32 were men representing 18.3% and 18 were women representing 10.3% of the participants. Meanwhile, the collection of data lasted for one-weeks as they filled it by part.

2.4 Design and Statistics

A cross-sectional survey method was employed. One-way ANOVA was used to test hypothesis one to five while Independent T-test was used to test hypothesis six and seven of the study variables while Independent T-test was used to test hypothesis six and seven.

2.5 Result Analysis

The result of the study showed no significant difference of the personality domains on alcohol relapse, and no significant difference on gender and employment on alcohol relapse.

Table 1: Summary of the table of mean and standard deviation for the variables studied.

	N	Mean	Std. Deviation	Std. Error
Extraversion	4	3.7500	.95743	.47871
Agreeableness	2	4.0000	1.41421	1.00000
Conscientiousness	6	4.0000	.89443	.36515
Neuroticism	2	3.5000	.70711	.50000
Openness	36	3.6111	.72812	.12135
Total	50	3.6800	.76772	.10857
Model	Fixed Effects		.78607	.11117

Random Effects	.11117 ^a
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The results in table 1 above shows that there will be no significant difference between openness to experience and agreeableness personality traits on number of relapse in alcohol amongst treated alcoholics ($r = .783, p < 0.05$). The result also shows that there was no significant difference between agreeableness and conscientiousness personality trait on number of relapse in alcohol among treated alcoholics. ($r = .783, p < 0.05$).

The result also shows that there was no significant difference between conscientiousness and neuroticism on number of relapse in alcohol among treated alcoholics ($r = .783, p < 0.05$). Besides, the result shows that there was no significant difference between neuroticism and extraversion on rate of relapse in alcohol among treated alcoholics ($r = .783, p < 0.05$). Also the result shows that there was no significant difference between extraversion and openness to experience on number of relapse in alcohol among treated alcoholics ($r = .783, p < 0.05$).

Table 2: Summary table of gender and occupation relapse in alcohol among treated alcoholics.

Gender	N	\bar{x}	SD	Df	T	P
Males	32	29.7812	4.03000	48	-874	<.05
Females	18	30.7222	2.84513			
Unemployed	22	29.8636	4.71366			
Employed	28	30.3214	2.59706			

Table 2 above shows that gender does not have a significant difference on number of relapse among treated alcoholics. ($t = -.874; df = 48; p < 0.05$). Participants who were males on alcohol relapse scored ($\bar{X} = 29.7812$) and $SD = 4.03000$ while participants who are females scored ($\bar{X} = 30.7222$) and $SD = 2.84513$

Besides, the result shows that employment or unemployment does not have a significant difference on number of relapse in alcohol among treated alcoholics. ($t = -.437; df = 48; p < 0.05$). Participants who were unemployed who relapse in alcohol relapse scored ($\bar{X} = 29.8636$) and $SD = 4.71366$ while participants who are employed but relapse scored ($\bar{X} = 30.3214$) and $SD = 2.59706$.

DISCUSSIONS

The present findings showed that there is no significant difference between openness to experience and agreeableness personality trait on number of relapse in alcohol amongst treated alcoholics. This implies that relapse in alcohol do not depend on the openness to experience or agreeableness personality trait of the individual but rather could be as a result

of several factors like socio-cultural/environmental factors. This finding disagrees with some previous studies that predicated relapse in alcohol on openness to experience personality trait Sher, Bartholow & Wood, (2000); Flory Lynam, Milich, Leukefeld & Clayton, (2002). The finding of the present study agrees with the work of Brooner, Schmidt, Bigelow & Costa, (1993), that there is no difference between Openness to experience and agreeableness on relapse in alcohol. This is true based on the assumption that alcohol addicts initially have chosen a radical way of believing and acting, such as the consumption of alcohol either for recreational use or as a means to dealing with their inner/life experienced problems. Openness scale reflects the cognitive style of an individual. Earlier studies reported that substance abusers scored higher on this dimension of personality as compared to non-substance abusers Flory Lynam, Milich, Sher, Bartholow & Wood, (2000), Leukefeld & Clayton, (2002). Besides, agreeableness is associated with positive interpersonal qualities such as altruism and positive attitudes towards others, trust, modesty, and cooperativeness these are traits not commonly associated with the hardened life of alcohol abusers. Therefore, it is not surprising that there was no difference between openness to experience personality traits and agreeableness on relapse amongst treated alcoholics as evident in the finding of the present study. Likewise, Kadari, Bhagyalakshmi & Kedia (2003) found correlation between low socio- economic status instead of openness to experience in alcohol relapsed patients. Similarly, Amit, Sharma, Suneet, Upadhyaya, Pankaj bansal, Nijhawan & Sharma (2012)) found that unemployment rather than openness correlated with relapse in alcohol. It simply shows that curiosity for new ideas, altruism and positive attitudes towards others which are among of the facets does not warrant alcohol stimulant.

The findings of this study revealed that there no significant difference between agreeableness and conscientiousness personality trait on number of relapse in alcohol among treated alcoholics. The findings of the present study is line with the previous studie, Martin & Sher, (1994); Trull & Sher, (1994); Flory et.al, (2002); Malouff, Thorsteinsson, Rooke, & Schutte, (2007) Walton & Roberts, (2004) who reported that conscientiousness is associated with less alcohol use, smoking, and illicit substances.

The result of this study showed that there is no significant difference between conscientiousness and neuroticism on number of relapse in alcohol among treated alcoholics is accepted. In contrast, Trobst, Costa, McCrae and Master (2000), noted that that, low conscientiousness was associated with other health risk behaviours. A common denominator for heroin abuse was, of course, that they pose a health risk. Hence, it may appear that conscientiousness not only enhances the chance of health risk behaviour, but the mechanisms which regulate maintenance and cessation of heroin abuse. The personality profile of opioid addicts appeared different from the normal population, opioid addicts scored higher on Neuroticism and lower on Extraversion, Agreeableness and Conscientiousness (Kvisle, 2004). Kornor and Nordvik (2007) reported that substance dependent sample scored higher on Neuroticism. The findings of this study revealed that neuroticism and extraversion personality trait showed no significant difference on number of relapse in alcohol amongst treated alcoholics. In contrast, Kannappan and Cherian (1989) reported that alcohol relapsed group scored higher on both the Neuroticism and Extraversion scales, also Barnes, 1983; Eysenck & Eysenck, (1979), reported that alcohol abusers scored higher than non-substance abusers on Neuroticism, but they usually do not differ on Extraversion scale of personality. Similarly, Malouff, Thorsteinsson, Rooke, & Schutte, (2007), in their meta-analysis showed that alcohol involvement was associated with low Conscientiousness, low Agreeableness, and high Neuroticism. Again, Kornor and Nordvik (2007) reported that substance dependent sample scored higher on Neuroticism, lower on Extraversion and lower on Conscientiousness than the controls.

The result this study showed that there was no significant difference between extraversion and openness to experience on number of relapse in alcohol among treated alcoholics was accepted. This does not agree with the findings of previous studies that says that individuals prone to abuse intoxicating substances have been characterized by low extraversion (Trull and Sher, 1994), agreeableness (Flory, Lynam, Milich, Leukefeld, and Clayton, 2002; Martin and Sher, 1994), and conscientiousness (Flory et al., 2002; Martin and Sher, 1994), as well as high neuroticism (Trull & Sher, 1994, Sher, 2000) and openness (Sher et al., 2000).

The findings of this study revealed that there was difference between male and female participants in alcohol relapse was rejected. This is in contrast to the previous study by Walitzer and Dearing (2006) who found that alcohol, relapse rates were similar across gender. Gender did moderate the association between marriage and alcohol relapse. For women, marriage and marital stress were risk factors for alcohol relapse; among men, marriage lowered relapse risk. This gender difference in the role of marriage in relapse may be a result of partner differences in problem drinking. Alcoholic women are more likely to be married to heavy drinking partners than are alcoholic men; thus, alcoholic women may be put at risk of relapse by marriage and alcoholic men may be protected by marriage. However, in contrast to the findings of this study, Walitzer and Dearing (2006) noted that there are fewer studies documenting gender differences in substance abuse relapse so conclusions are limited and tentative. In contrast to the lack of gender differences in alcohol relapse rates, women appear less likely to experience relapse to substance use, relative to men. Women relapsing to substance use appear to be more sensitive to negative affect and interpersonal problems. Men, in contrast, may be more likely to have positive experiences prior to relapse.

The findings of this study revealed that there is no significant difference between unemployed and employed participants in alcohol relapse was rejected. The findings of this study is supported by Hammer, (1992) longitudinal study carried out in Norway (tracking 2,000 17-20 year olds) and looking at alcohol use in the immediate aftermath of job loss, found that unemployment did not appear to influence alcohol use. The author explained that participants did not seem to view alcohol use as a way of handling stress and therefore did not increase consumption. Moreover, Hammer claimed that even those who were involved in heavy alcohol use reported a fall in consumption after losing employment. In contrast, Claussen (1999) concluded that there is a causal relationship between unemployment and relapse in alcohol. The study was longitudinal and followed up a small number of unemployed people (n=228 at the start of the study). At a five-year follow-up, respondents who were still unemployed had double the prevalence of alcohol disorders compared to the re-employed. Similarly, Khan *et al.*, 2002 found that in the short term unemployment appears to reduce alcohol use, only for consumption to increase in the long term. The authors noted that to gain a better understanding of any relationship between unemployment and alcohol misuse longitudinal data would be required.

RECOMMENDATION

The following recommendations were made from the findings:

- (a) Personality traits are not implicated in relapse in alcohol among treated alcoholics but rather could be as a result of several factors like socio-cultural/environmental factors. And so such factors should be explored and attention given to them as prevention.
- (b) The fact both gender and employment did have any significant different in relapse in alcohol among treated alcoholics. It suggested that both gender should be taken into consideration while given relapse prevention therapy since the both have the same level vulnerability.

- (c) Relapse should be considered a stage in the stages-of-change in the treatment of alcohol/substance dependent and as such should be a major part of the treatment plan.

LIMITATIONS OF THE STUDY

This study is a cross-sectional survey where interaction with participant were done once during the data collection, The family nature, upbringing and life events/experiences were not taken into considerations. Again, Big-Five personality and Mac-Alcoholism scale were self-administered questionnaires and information about personality traits and measure the degree of excessive alcohol consumption was self reported. These factors may several ways have affected the result obtained in this study.

CONCLUSION

The study concluded that relapse among treated alcoholics is a common factor as relapse It is a stage in the stages-of-change model. Again, its etiology involved several factors other personality and demographic factors.

REFERENCES

- Amit, Sharma, Suneet, Upadhyaya, Pankaj bansal, Nijhawan and Sharma (2012). A study of factors affecting relapse in substance abuse. *Indian J.L.Sci.2(1)* : 31-35, 2012.
- Adewuya, Owoeye and Erinforlarin, (2009). Correlates of self-stigma among outpatients with mental illness in Lagos, Nigeria. *Int J Soc Psychiatry. 2011 Jul;57(4):418-27*
- Barnes, G. (1980). Characteristics of the Clinical Alcoholic Personality. *Journal of Studies on Alcohol, 41*, 894-910.
- Barnes, G., Murray, R., Patton, D., Bentler, P., and Anderson, R. (2000). The addiction-prone personality. *Dordrecht Netherlands: Kluwer Academic Publishers.*
- Blatt, S., McDonald,C., Sugarman, A., and Wilber (1984). Psychodynamic Theories of Opiateaddiction: New directions for research. *Clinical Psychology Review, 4,159-189.*
- Broner, R., Herbst, J., Schmidt, C., Bigelow, G., and Costa, P. (1993). Antisocial the Five-Factor Model of Personality. *The Journal of Nervous and MentalDisease, 181*, 313-319.
- Buskist, W., and Gerbing, D. (1990). *Psychology. Boundaries and Frontiers. London: Foresman and company.*
- Claussen, B. (1999). 'Alcohol disorders and re-employment in a 5-year follow-up of long-term unemployed'. *Addiction, 94(1):133-138*

- Costa, P and Mc Crae, R (1992). NEO PI-R. The Revised NEO Personality Inventory. *Odessa FL: Psychological Assessment Resources.*
- Costa, T., and McCrae, R. R. (1992). *The Revised NEO Personality Inventory.* Odessa FL: Psychological Assessment Resources.
- Cox, W. (1985). Personality correlates of substance abuse. In M. Galizio and S.A. Maisto(Eds.), *Determinants of Substance Abuse : Biological, Psychological and Environmental Factors.* New York: Plenum Press, 209-246.
- Craig, J. (1984). A Comparison of MMPI profiles of heroin addicts based on multiple methods of classification. *Journal of Personality Assessment, 48,* 115-120.
- Dorus and Senay, (1980). Depression, demographic dimensions, and drug abuse. *Am J. Psychiatry. 1980 Jun;137(6):699-704.*
- Fisher, L., Elias, J., and Ritz, K. (1998). Predicting relapse to substance abuse as a function of personality dimensions. *Alcoholism: Clinical and Experimental Research, 22(5),* 1041-1047.
- Flory, K., Lynam, D., Milich, R., Leukefeld, C., and Clayton, R. (2002). The Relationship among Personality, Symptoms of Alcohol and Marijuana Abuse, and Symptoms of Comorbid Psychopathology: Results from a Community Sample. *Experimental and Clinical Psychopharmacology, 10,* 425-434.
- Guo, J., Hill, K., Hawkins, J., Catalano, R. and Abbott, R. (2002). A Development Analysis of socio-demographic, family and peer effects on adolescents' illicit drug initiation, *Journal of the American Academy of Child and Adolescent Psychiatry, 41,* 838-845.
- Hammer, T. (1992). 'Unemployment and use of Drug and Alcohol among Young People: a Longitudinal Study in the General Population'. *British Journal of Addiction, 87:*1571-1581.
- Jellinek, E., (2002). *The Disease Concept of Alcoholism,* Hill house, New Haven.
- John, O., Donahue, E., and Kentle, R. (1991). *The Big-Five Inventory-4Versions 4a and 54.* Berkeley: University of California. Berkeley Institute of Personality and Social Research.
- Kadari, Bhagyalakshmi & Kedia (2003). A Study of Socio-Demographic Profile of Substance Abusers Attending a De-Addiction Centre in Ahmedabad City. *Indian Journal of Community Medicine 28(2).*
- Kannappan, R., and Cherian, R. (1989). Personality factors and Alcoholism. *Journal of Personality and Clinical Studies, 5,* 43-46.
- Kirkcaldya, B., Siefenb, G., Surallb, D., and Bischoff, R., (2004). Predictors of drug and alcohol abuse among children's and adolescents. *Personality and Individual differences, 36,* 247-265.

- Kornor, G., and Nordvik, H. (2007). Five-factor Model Personality Traits in Opioid Dependence. *BMC Psychiatry*, 7, 37.
- Kvisle, A., (2004). Personality and personality disorder in opioid addicts. Retrieved June, 2004, from <http://www.lars.kvisle.no/blog/archives/Personality-PD-opioid-addicts.pdf>.
- MacAndrew, C (1967). The Differentiation of Male Alcoholic Outpatients from non alcoholic psychiatric outpatients by means of MMPI. *Quarterly Journal of Studies on Alcohol*, 26 (2), 238-246.
- MacAndrew, C. (1980). Male Alcoholics, Secondary Psychopathy and Eysenck's theory of personality. *Personality and Individual Differences*, 1(2), 151-160.
- Martin, E., and Sher, K., (1994). Family History of Alcoholism, alcohol use disorders and the Five Factor Model of Personality. *Journal of Studies on Alcohol*, 55, 81-90.
- Malouff, Thorsteinsson, Rooke, & Schutte, (2007). Alcohol involvement and the Five-Factor model of personality: a meta-analysis. *J Drug Educ.* 2007;37(3):277-94.
- McGee, 1986, Crjeervaldsen, Byrvang, and Opjordsoen, 2000; Khan and Salman, (2003). Five Factor Correlates: A Comparison of Substance Abusers and Non-Substance Abusers. *Journal of the Indian Academy of Applied Psychology January 2010, Vol.36, No.1, 107-114*
- National Survey on Drug Use and Health, (2011). Summary of National Findings. Nations Office on Drugs and Crime (UNODC). World Report (2011) in Aroyewun, Adeyemo and Ifeacho (2014). Socio-Demographic Variables and Personality of profiles of Patients with substance use disorder in a drug abuse treatment of facility in Nigeria, *Research on humanities and Social Sciences, ISSN(Paper) 2224-5766 ISSN (Online) 4, 15*.
- Ndetei, Mutiso, Khasakhala, Odhiambo, Kokonya and Sood, (2004). An Investigation Into Prevalence And Factors Contributing To Relapse Among Alcoholics In Selected Rehabilitation Centres In Nairobi County, Kenya. *International journal of innovative research & development. Page 347*.
- Rooke, & Schutte, (2007) Walton & Roberts, (2004). The Multiple, Distinct Ways that Personality Contributes to Alcohol Use Disorders. *Soc Personal Psychol Compass. 2010 Sep; 4(9): 767-782*.
- Sampson, B. N., Frank, Maureen, D., Nkamare, B., Robinson-B, C., and Wokne-E., L. (2017). Factors Influencing Relapse Among Substance Abuse Patients Attending Neuropsychiatric Hospital Rumuigbo Port Harcourt, Nigeria *Ijdr International Journal Of Development Research* Vol. 07, Issue, 11, Pp.16984-16989, 1,
- Sher, K., Bartholow, B., and Wood, M., (2000). Personality and substance use disorders: A prospective study. *Journal of Consulting and Clinical Psychology*, 68, 818-829.

- Skinner and Allen, (1982). Alcohol dependence syndrome: Measurement and validation. *Journal of Abnormal Psychology*, 91(3), 199-209.
- Sutherland, E., Schroeder, H., and Tordella, C., (1950). Personality traits and the alcoholic; a critique of existing studies. *Quarterly Journal of Studies on Alcohol*, 11(4), 547-561.
- Trost, K., Wiggins, J., Costa, P., Herbst, J., McCrae, R., and Masters, H. (2000). Personality psychology and problem behavior: HIV risk and the five-factor model of personality. *Journal of Personality*, 68, 1233- 1252.
- Trull, T., and Sher, K., (1994). Relationship between the Five-Factor Model of Personality and Axis 1 disorders in a nonclinical sample. *Journal of Abnormal Psychology*, 103, 350- 355.
- Walitzer K, and Dearing R (2006) Gender differences in alcohol and substance use relapse. *PubMedUS National Library of Medicine National Health Institute* 26.
- WHO, (2004). Classes of substance abuse relapse situations: A comparison of adolescents and adults. *Psychol Addict Behav*. 2008 Sep; 22(3): 372–379.

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