

Comparative Study

Comparative Study Between Alcoholics and Non-Alcoholics on Personality Attributes: A Study on Adult Population

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ABSTRACT

Heavy alcohol consumption is a major public health problem (WHO,2014), increasing the risk of cardiovascular diseases, liver disease, certain cancers, mental health problems and premature mortality. Understanding the determinants of harmful levels of alcohol intake is important, if progress is to be made in modifying this behavior. While socioeconomic status and mental health are established predictors, the role of other psychological factors has been much less well explored. The extent to which alcohol consumption is determined by personality has long been debated (Cloninger et al., 1988; Tarter, 1988). The present study was undertaken to analyse the difference between the personality attributes of alcoholic and non-alcoholic adults. The sample of the study consists of 180 adults (60 alcoholics & 120 non-alcoholics) from Jaipur city selected through purposive sampling method. Out of 60 alcoholics 20 frequent alcoholics and 40 infrequent alcoholics were selected from addiction centre. Participants filled the demographic questionnaire and NEO-PIR scale (Paul T. Costa Jr. Robert,1992). The results indicated a significant difference between frequent alcoholics, infrequent alcoholics and non-alcoholics on dimension of NEO-PIR. Strong associations exist between personality traits and alcohol consumption. Studying pertinent narrowband qualities can reveal the psychological processes through which personality influences drinking patterns and associated issues as well. The findings will help improving clinical interventions for alcohol related and personality related disorders.

Keywords: *Alcoholism, alcohol abuse, alcohol dependence, alcohol use disorder, NEO- PIR.*

According to the World Health Organization, alcohol is enjoyed by one-fourth of the adult male population in India. Alcohol use disorder is the continual consumption of alcohol despite evidence of harm and repeated attempts to reduce consumption. It includes tolerance to alcohol, which means a bigger dose must be consumed repeatedly to get the same effect, as well as a recognizable set of behavioural and mental withdrawal symptoms. In DSM-5, alcohol abuse and dependence are combined into a single diagnosis called alcohol use disorder (AUD), with subclassifications for mild, moderate, and severe

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cases. Alcohol use disorder causes harm to one's health and emotional well-being, interferes with productivity at work, and causes conflicts with others and other social and legal problems (Solanki, 2014). Alcohol consumption, alcohol intake or alcohol use are all different terms used to explain the same concept; the act of drinking alcohol. What differs is how alcohol is consumed, why it is consumed, for and the effects it has on individuals and the society at large. In India, the rising consumption of alcohol and its associated consequences have already become a significant public health issue that need attention. Alcohol consumption is a very common practice among adults and give rise to myriad of physical and mental issues (Babor, Fuente, Saunders & Grant, 2001). For years, research on the pathogenesis of alcoholism has highlighted several factors from genetic, biological vulnerabilities to personal and socio-cultural factors. More recently, research into the causes of alcoholism has shown that there is a predisposition for individuals with alcoholic in relation to develop problematic drinking behavior. Among them personality attributes are considered to be a significant contributor of alcohol related behavior and has garnered empirical attention. Personality traits which can be described as differences between individuals in relation to their behaviour, thoughts, and feeling are stable in different situations. (McCrae and Costa, 2008; Specht et al., 2014). These traits are important predictors of numerous personal, interpersonal, and social/ institutional outcomes. Among these are for instance, happiness, physical and psychological health, longevity addictive substantial activity and occupational choices. NEO-PIR provides a comprehensive and detailed assessment of adult personality based on the five factors model of personality. It is a taxonomy of personality traits in terms of five broad dimensions or big five personality traits. It includes neuroticism which refers to the tendency to revel in terrible emotions and/or mind, extraversion which refers to the tendency to be sociable, energetic, outgoing and dominant, openness to experience refers to the propensity of intellectual, artistic, and experiential curiosity, agreeableness refers to the tendency to get along with others and be cooperative, and conscientiousness refers to the tendency to be accountable, dependable and organized). Personality or psychological traits play an important role in addiction psychology (Malouff et al., 2007). It challenges us to think critically about the degree to which alcohol addiction and addiction process influence adults. We argue that psychological factors or traits contribute to being alcoholics and non- alcoholics among adults. Numerous studies demonstrate relationship between specific personality factors or traits and alcohol involvement. Openness to experience, extraversion, agreeableness, neuroticism five factor traits have been shown to correspond, with varying degree of consistency, to alcohol use and outcomes (Sher, Barthalow & Vieth, 1999). A meta- analysis that suggests among five – factor trait, only conscientiousness, agreeableness, and neuroticism are significantly linked to alcohol involvement, (Trull, & Sher, 1994). A recent meta-analytic study by Lui et. Al. (2021) to quantify the unique associations between alcohol use outcomes and each Big Five personality domains over and above other domains revealed that conscientiousness and agreeableness are negatively correlated with the consumption of alcohol and leads to hazardous behavior. People who are organized and dutiful abstain from drinking related behavior as they found it to be an obstacle in their long- term goal attainment (Lee et al., 2015) Extraversion was also obtained to be a unique predictor of consumption of alcohol. Neuroticism was found to be associated with negative alcohol related repercussions (Cooper et al., 2015; Kuntsche et al., 2006).). It influences mental and physical health has recently been identified as top priority for research, (Lahey, 2009) and the relation between personality traits and alcohol use. Researchers have found that traits characteristic of neuroticism and disinhibition have similar patterns of association with alcohol-related behaviors in men and women (Martin, Lynch, Pollock, & Clark, 2000; McGue, Slutske,

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(Taylor, & Iacono, 1997) A study done by Lynam and Miller (2019) brought into light an important conclusion regarding agreeableness. It was observed that agreeableness has been an understudied correlate of alcohol use outcomes which give rise to psychopathological symptoms. Trait of extraversion was found to be gravitating towards physical environment and social affiliation that encourages alcohol consumption (Park et al., 2008). Consistent with existing body of available researches, neuroticism is found to be strongly associated with alcohol consumption and related problems. Individuals who experience more negative affect and have inadequate coping strategies are more engaged in alcohol consumption. This neuroticism is the outcome of low tolerance for frustration, stress, anxiety and depression (Armeli et al., 2000; Blevins et al., 2016). The heavy users of alcohol who scored higher on neuroticism are found to be higher on psychoticism and impulsivity as well (Bartholow & Wood, 2000). A cross-sectional analysis by Hakulinen et. al. (2015) found higher neuroticism and extraversion, and lower agreeableness and conscientiousness were associated with augmented risk of heavy vs. moderate alcohol consumption. While on the other side higher agreeableness and lower extraversion and openness were associated with increased odds of abstinence. Although abundant literature has been obtained in western context on personality dimensions and alcoholism, but a few studies have been obtained in our Indian context. The present study aims to contribute to existing body of empirical evidences on concerned variables.

Objectives of the Study

- To measure the significant difference between non-alcoholic and infrequent alcoholics adults on NEO-PIR personality dimensions.
- To measure the significant difference between infrequent alcoholics and frequent alcoholic adults on NEO-PIR personality dimensions.

Hypothesis of the Study

- There would be a significant difference between non-alcoholic and infrequent alcoholics adults on NEO-PIR personality dimensions.
- There would be a significant difference between infrequent alcoholics and frequent alcoholic adults on NEO-PIR personality dimensions.

METHODOLOGY

Participants

For the purpose of research, the data was collected from 180 adults (60 alcoholics & 120 non-alcoholics) located in Jaipur city addiction centre, Rajasthan state. Out of 60 alcoholics, 20 frequent alcoholics adults and 40 infrequent alcoholic adults were selected from addiction centre of Jaipur and 100 non alcoholics adults from same city. The participants having minimal education level was 10th and age ranged between 30 to 50 years were included.

Research tools

- **Demographic questionnaire:** Socio-demographic variables including participants' names, age, gender, educational backgrounds, occupations, etc. were all gathered through the use of a questionnaire.
- **Neo-pir scale (Paul T. Costa Jr. Robert, 1992):** The NEO-PI-R is a 240-item personality instrument that measures the five factors in the Five Factor Model. It consists of 30 eight-item facet scales, 6 for each of the five basic personality factors: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and

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Conscientiousness (C). Responses are recorded on a five-point Likert-type scale, from Strongly Disagree to Strongly Agree. Overall, NEO-PI-R's domain factors and facet scales have good internal consistency reliabilities and test-retest reliabilities. Its validity has been established by a great amount of research that has supported the universality of the five-factor structure and the relationship of factor and facet scores with outcome variables.

Procedure

After the selection of the sample (120 non – alcoholics, 20 frequent alcoholics & 40 infrequent alcoholics) a proper rapport was built with them. The participants were requested to fill up the inventories carefully without leaving any question unanswered. After receiving the inventories from them, data underwent ANOVA and t test for analysis.

RESULTS AND DISCUSSION

Table 1 ANOVA between frequent alcoholics, infrequent alcoholics and non- alcoholics on NEO-PIR dimensions

		Sum of Squares	df	Mean square	F
Neuroticism	Between Groups	3925.208	2	1962.604	334.958**
	Within Groups	1031.228	177	5.859	
	Total	4956.436	179		
Extraversion	Between Groups	1596.669	2	798.335	180.873**
	Within Groups	781.242	177	4.414	
	Total	2377.911	179		
Openness	Between Groups	1282.711	2	641.356	232.337**
	Within Groups	488.600	177	2.760	
	Total	1771.311	179		
Agreeableness	Between Groups	915.033	2	457.517	223.847**
	Within Groups	361.767	177	2.044	
	Total	1276.800	179		
Conscientiousness	Between Groups	586.633	2	293.317	100.165**
	Within Groups	518.317	177	2.928	
	Total	1104.950	179	1962.604	

* significant at 0.05 level

** significant at 0.01 level

Table 1 depicts the F values of ANOVA test of three groups on dimensions of NEO-PIR. Findings show that there exists a significant difference between frequent alcoholics, infrequent alcoholics and non-alcoholics on dimensions of neuroticism ($F = 334.958$, $p < 0.01$), extraversion ($F = 180.873$, $p < 0.01$), openness ($F = 232.337$, $p < 0.01$), agreeableness ($F = 223.847$, $p < 0.01$) and conscientiousness ($F = 100.165$, $p < 0.01$). Results are in favor of the studies highlighting significant difference in alcoholics and non-alcoholic adults in relation to personality traits (Hakulinen, et. al 2015).

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Table 2 Mean, S.D. and t- ratio between adults with frequent alcoholics and infrequent alcoholics adults on NEO-PIR dimensions

		N	Mean	SD	t
Neuroticism	Frequent Alcoholics	20	45.60	3.251	3.761*
	Infrequent Alcoholics	40	41.74	3.945	
Extraversion	Frequent Alcoholics	20	39.15	2.943	1.742
	Infrequent Alcoholics	40	37.65	3.239	
Openness	Frequent Alcoholics	20	37.90	2.245	2.011
	Infrequent Alcoholics	40	36.65	2.282	
Agreeableness	Frequent Alcoholics	20	36.30	1.174	1.101
	Infrequent Alcoholics	40	35.82	1.738	
Conscientiousness	Frequent Alcoholics	20	33.45	1.468	.771
	Infrequent Alcoholics	40	33.12	1.572	

**significant at 0.05 level, **significant at 0.01level*

Table 2 indicates differences between mean of frequent alcoholic adults and infrequent adults on five dimensions of NEO- PIR. A significant difference between frequent alcoholics and infrequent alcoholics was obtained only on the dimensions of neuroticism ($t=3.761$, $p < .01$). It signifies that frequent alcoholics are more emotionally unstable and consume alcohol as a coping drinking mechanism. They are more impulsive in their behavior and experience negative moods more often than infrequent alcoholics. However no significant difference was obtained between frequent alcoholics and infrequent alcoholics on the dimensions of extraversion, agreeableness, extraversion, openness and conscientiousness

Table 3 Mean, S.D. and t- ratio between adults with frequent alcoholics and non - alcoholics adults on NEO-PIR dimensions

		N	Mean	SD	t
Neuroticism	Frequent Alcoholics	20	45.60	3.251	28.431**
	Non- Alcoholics	120	33.34	1.417	
Extraversion	Frequent Alcoholics	20	39.15	2.943	18.301**
	Non- Alcoholics	120	31.89	1.321	
Openness	Frequent Alcoholics	20	37.90	2.245	21.046**
	Non- Alcoholics	120	31.45	1.263	
Agreeableness	Frequent Alcoholics	20	36.30	1.174	28.116**
	Non- Alcoholics	120	31.21	1.353	
Conscientiousness	Frequent Alcoholics	20	33.45	1.468	9.570**
	Non- Alcoholics	120	29.41	1.789	

**significant at 0.05 level*

***significant at 0.01level*

Table 3 indicates significant differences between mean of frequent alcoholics and non-alcoholic adults on neuroticism ($t=28.431$, $p < .01$), extraversion ($t = 18.301$, $p < .01$), openness ($t = 21.046$, $p < .01$), agreeableness (28.116 , $p < .01$) and conscientiousness (9.570 , $p < .01$). It indicates that frequent alcoholics experience more negative emotions, extrovert in orientation, more open to experiences and highly agreeable than non-alcoholics. Contrary to previous researches, frequent alcoholics are observed to be more conscientious than non-alcoholics ($t= 9.570$, $p < .01$).

DISCUSSION

The present study aimed at comparing frequent alcoholics, infrequent alcoholics and non-alcoholics adults on personality dimension as proposed by five factor model using NEO-PIR inventory. Findings highlighted significant differences between three groups on dimensions of neuroticism, extraversion, agreeableness, openness and conscientiousness. In relation neuroticism, frequent alcoholics were scoring higher than infrequent and non-alcoholics. It sheds light on the fact that heavy consumers of alcohol focus more on negative mood and thoughts in comparison to occasional drinkers. Frequent alcoholics find themselves unable to cope with stress and frustration and exhibit impulsivity in their behavior in relation to non-alcoholic adults. Not only this they are engaged in more problematic behavior and vulnerable towards other psychological issues (Hakulinen, et. al 2015; Loukas et al., 2000). Regarding extraversion and openness, frequent alcoholics tend to be more active in social settings favoring alcohol and deriving pleasure from it. Openness enables them to look more often for recreation involving alcohol and thus increasing more accessibility and exposure to alcohol (Fairbairn et al., 2015). Their search for alcohol related sensations and pleasurable experiences never ceases to stop. A divergent finding was also obtained in the study where frequent alcoholics tends to be more agreeable and conscientious than non-alcoholic adults. These findings are not in agreement of the existing literature (Lui et. Al 2021; Terracciano et al., 2008; Turiano and colleagues, 2012). However, difference was obtained between frequent alcoholic and infrequent alcoholics on these two dimensions. These findings suggest more research on facet level of these dimensions to be analyzed to explain the better outcome. A fine-grained analysis of the facets of five dimensions of NEO-PIR is suggested to identify the reason of different association of alcohol consumption with agreeableness and conscientiousness. Although personality is related to alcohol and related problematic behavior, many other variables such as cognitive style, interpersonal relation and gender differences could have been undertaken. By finding out the personality differences, this study can be used in development of intervention program for treatment of substance use disorders.

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Conflict of Interest

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