

The impact of personality types and gender on attitude towards drinking alcohol in patients with depression

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ABSTRACT

Background: Personality does play a role in the genesis of both depression and alcohol dependence. It is well known that patients with depression may indulge in alcohol consumption that in turn may lead to dependence. Men generally are more prone to alcohol dependence as a coping mechanism than women. The main purpose of the research was to study the relationship between personality type and gender on attitude towards drinking alcohol in patients with depression.

Methodology: The study utilized a 2x2 design. The sample population was ninety which comprised of females and males and all were diagnosed with depression. Sample was collected from Delhi, Ahmedabad and Mumbai. The method of purposive sampling was applied and McCroskey Introversion scale was administered and based on the scoring, sample population was divided into gender and personality type. A scale measuring attitude towards alcohol by Bharda and Girija was administered on all four groups of the sample. Analysis was done using a two way analysis of variance.

Results: The findings of the study showed that there was significant effect of personality type (introversion & extroversion) on attitude towards drinking alcohol. There was also a significant effect of gender (male & female) on attitude towards drinking alcohol. There was no effect interaction between personality type and gender on the attitude towards drinking alcohol.

Conclusion: Personality and gender play a role in both depression and alcohol dependence and need to be considered when planning treatment and relapse prevention as well as playing a role in the genesis of alcohol dependence and attitudes towards alcohol intake.

Key words: personality, depression, gender, male, female, alcohol dependence, introversion, attitudes towards alcohol, extraversion.

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INTRODUCTION

Depression is a major mental health concern during emerging adulthood [1]. Personality refers to individuals' unique and relatively stable patterns of behavior, thoughts, and feelings [2]. Neuroticism was originally conceptualized as a quantitative personality trait defining an individual's vulnerability to various neurotic disorders and psychological distress. Individuals with high Neuroticism are characterized with emotional instability and are prone to low self-esteem, feelings of anxiety, depression, and guilt [3]. Essau et al. [4] also investigated co-morbid psychological disorders such as depression and somatic problems and found that depressive disorders and somatic disorders accompany substance use disorders in almost 15 percent of the cases. The study concluded that alcohol fulfilled all the characteristics of an access substance to drug use. From the onset of drug consumption and stabilization of drug related psychological and physical disturbances not more than one year passed by females and about two years by males. An examination of the relationship between personality and alcoholism presupposes that clearly identifies dimensions of personality exist and can be agreed upon. This, however, is not necessarily the case.

Numerous personality traits have been studied, and it is often unclear whether the various traits represent unique, partially over-lapping, or largely overlapping constructs [5].

Gender and personality

Gender has been reported to have influence on personality traits. Consistent gender differences have been reported for Neuroticism, Psychoticism, Harm Avoidance and Reward-Dependence. Less consistent gender-related differences have been established for Impulsivity and Sensation-Seeking. Women generally score higher on Neuroticism, Harm-Avoidance and Reward-Dependence and men score higher on Psychoticism and some measures of Impulsivity and Sensation Seeking [6-8].

Gender and alcoholism

Alcoholism is a male-predominated disorder. Most epidemiological studies of the last two decades have found that the rates of alcohol abuse and dependence were about five times higher in men than in women. Schmidt [9] documented differences in the development of alcoholism in alcohol-dependent women and men. Patients who had gone into alcohol dependence treatment for the first time were examined. His data shows that men pass through the central stages of alcoholism significantly earlier than women. Mann and Ackermann [10] reported gender specific differences between women and men dependent on alcohol. The most important result of that study is the remark that on an average, women become dependent on alcohol later than men. However, they then develop resultant ravages faster than men, although the resultant ravages from alcohol dependence are comparable between both women and men. This effect is called the 'telescoping of alcoholism in women'.

Personality and alcoholism

There are a number of ways that personality and alcoholism can be related to each other [11]. Several personality characteristics – primarily Neuroticism, Impulsivity Disinhibition and Sensation-Seeking – have been found to correlate with risk for alcoholism, pre-alcoholism or clinical alcoholism [12-13].

Personality, Gender and Alcoholism

The relationship between gender and personality is a seldom discussed topic in alcoholism research. An example for the consideration of the interaction between gender, personality and alcoholism is the differentiation of type 1 and type 2 alcoholics introduced by Cloninger [14]. Type 1, found in both female and male alcoholics, has a later age of onset, a psychological dependence on alcohol that leads to a loss of control over drinking after periods of abstinence, and guilt and fear engendered by the alcoholic dependence. Type 2, found primarily in men, is characterized by an inability to abstain at all, and by fights and arrests when drinking. Cloninger's classification specifies three personality traits distinguishing Type 1 and Type 2 alcoholics: The Type 1 personality is characterized as low in Novelty- Seeking, high in Harm-Avoidance, and high in Reward- Dependence. In contrast, Type 2 personality is high in Novelty-Seeking, low in Harm-Avoidance, and low in Reward-Dependence.

Personality traits are genetic characteristics measured along a continuum. An individual can have a small amount of a trait, a large amount of a trait, or anything in-between. The promoters of traits focus on the fact that researchers can measure variation in a characteristic [15]. Personality types are innate characteristics that are discontinuous with an absolute midpoint. An individual will be placed into a dichotomous category, usually consisting of opposing characteristics such as introversion or extraversion.

The main purpose of this research is to study the relationship of personality characteristics and gender on attitude towards alcohol in patients suffering from depression. In this study, the independent variables are personality type (introversion)(extroversion)and second independent variable is Gender(male)(female) and dependent variable is attitudes towards drinking alcohol.

METHODOLOGY

Operational Definitions

Introverts: Participants who were above the range of 48 as given by MC Croskey's Introversion scale (1997) were classified as introverts.

Extroverts: Participants who were below the range of 21 as given by MC Croskey's Introversion scale (1997) were classified as extroverts.

Attitude Towards Drinking Alcohol: It refers to the scores ranging from low to high that the students obtained in response to the statements in attitude towards drinking alcohol scale.

Depression: Participants who were already clinically diagnosed and undergoing treatment for depression were taken.

Hypotheses

The hypotheses of this study are:

1. Personality Type (Introversion & Extroversion) will have a significant difference on attitude towards alcohol consumption in people suffering from depression.
2. Gender (male & female) will have a significant difference on attitude towards alcohol consumption in people suffering from depression

This research study was created based upon certain assumptions regarding voluntary participation, language comfort, accuracy in translation and representativeness of the sample.

Procedure

Ninety patients diagnosed with depression undergoing treatment were selected from Ahmedabad, Mumbai and Delhi and then personality type was measured using scale of introversion by McCroskey [16] on males and females (47 males & 43 females) then attitude towards drinking alcohol was measured by using scale given by Bharda & Girija [17], scores of all scales were taken and further classified into categories of male introvert, male extrovert, female introvert, female extrovert.

Sampling strategy

The method of purposive sampling was carried out and further classification was done on the basis of introverts and extroverts categories.

Scales used in the measurement

1. **McCroskey Introversion Scale:** It is an 18 item likert scale. The correlations of this measure with the PRCA-24 have been around .30. Alpha reliability estimates have been above 0.8 [16].
2. **Attitude towards drinking Alcohol Scale:** It is a likert scale including 34 items with five ratings on it. Split half reliability coefficient is 0.84, test retest reliability coefficient is 0.74. Validity coefficient between attitude and beliefs ranges from 0.28 to 0.38, construct validity coefficient between attitude and using behavior is 0.51 [17].

STATISTICAL ANALYSIS

The SPSS trial version 20.0 for Windows 8 was applied in order to find out results. The Design of the study is a 2 (personality type) × 2 (gender) factorial design because there are two independent variables. The first independent variable personality type has two levels, introversion and extroversion. The second independent variable has two levels, that is, gender, male and female and we measured their impact on attitude towards alcohol, which is the dependent variable.

RESULTS

Before any analysis, median split was done and sample population was divided in two groups of introverts and extroverts. The means and standard deviations for all variables are reported in Table 1.

Table 1: Means, Standard Deviations, for personality Type and Gender Male and Females

Gender	Personality Type	Mean	Std. Deviation	N
Male	Extrovert	109.5833	20.22464	24
	Introvert	123.2609	18.91901	23
	Total	116.2766	20.57827	47
Female	Extrovert	92.2917	13.25167	24
	Introvert	102.0526	18.43449	19
	Total	96.6047	16.30533	43
Total	Extrovert	100.9375	19.03793	48
	Introvert	113.6667	21.34006	42
	Total	106.8778	21.02317	90

Levene's test confirmed the homogeneity of variances and hence we used a two way analysis of variance for the comparison. A two way ANOVA was run for the sample of ninety participants, conducted for personality characteristics and gender. Results indicate significant difference between the means of introvert and extrovert and the means of male and female. But no significant difference between the means for interaction effect can be seen (Table 2).

Table 2: Two Way Analysis Of Variance

Source	Type III Sum of Squares	df	Mean Square	F	p-value
Corrected Model	11897.482 ^a	3	3965.827	12.430	0.0001
Intercept	1016979.428	1	1016979.428	3187.538	0.0001
Gender	8260.234	1	8260.234	25.890	0.0001
Personality type (Intro-Extro)	3061.489	1	3061.489	9.596	0.003
Gender * personality ((Intro-Extro)	85.484	1	85.484	.268	0.606
Error	27438.174	86	319.049		
Total	1067393.000	90			
Corrected Total	39335.656	89			

a. R Squared = .302 (Adjusted R Squared = .278)

As three cities were compared and parametric statistics was carried out for other variables, one way ANOVA was used to compare the significance of difference between the mean of attitude towards alcohol consumption score for the different cities. Results showed there was no significant difference in the attitude towards alcohol use across all three cities.

Table 3: One Way Analysis Of Variance comparing attitudes towards alcohol consumption across all cities

	Sum of Squares	df	Mean Square	F	p-value
Between Groups	671.756	2	335.878	0.756	0.473
Within Groups	38663.900	87	444.413		
Total	39335.656	89			

(*p < 0.05. **p < 0.01)

According to Hypothesis 1, personality characteristics (introvert/extrovert) did have a significant effect on attitude towards alcohol consumption, which matches the findings of the studies discussed above. Hypothesis 2 was also proved as there was a significant gender difference for alcohol consumption. However there was no significant interaction between personality type and gender and hence this Hypothesis was not proved.

DISCUSSION

The purpose of this study was to examine the effect of personality type (introvert/extrovert) on attitude towards alcohol consumption, to explore gender differences in attitude towards alcohol consumption, and to study the interaction effect of personality type and gender on attitude towards alcohol consumption in patients with depression. As proposed, personality type (introvert/extrovert) had significant effect on attitude towards drinking alcohol. Hence, results were also consistent with the hypothesis and showed that introvert personality type had a significant effect on attitude towards drinking alcohol. As proposed also gender had significant effect on attitude toward drinking alcohol and results showed that male gender had a significant effect on attitude towards drinking alcohol. However, there was no interaction effect between personality type and gender on attitude towards drinking alcohol.

Consistent with previous researches it has shown that a variety of personality characteristics greatly affect drinking levels. The personality trait that was found to be the single best predictor variable is extroversion [18]. As hypothesized that personality type (introvert/extrovert) will have significant effect on attitude towards drinking alcohol, and many studies also supported it and are in line with current study. A study has reported that alcohol that is consumed is positively correlated with extroversion and sociability [19]. Likewise, non-drinkers were found to score lower on levels of extroversion [20]. Leppin, [21] observed that personality variables are also complex in their nature. Personality variables [22] provide better predictions of the environment factors also determine the attitude towards alcohol in a higher way.

It was seen in another study done by Chunkappura [23] on alcoholism and personality that the alcoholics differ significantly from non alcoholics with regard to their attitude towards family unit, sex, self concept, extroversion- introversion and neuroticism- stability. Results also indicated that alcoholics were introverted and had significantly high anxiety.

Another study done by Brown and Munson [24] showed that Alcohol expectancy scores were found to vary with drinking behavior and personality measures; however, no significant sex differences were obtained. Extroverted students expected more social and physical pleasure, more relaxation and less arousal with drinking.

Higher incidence of alcohol use among male when compared to female has been found in various studies [25-26]. Also, many studies showed that males tend to have more positive attitude towards alcohol than females and gender plays a greater role in attitude towards alcohol especially in country like India where it is a male dominated society and a patriarchal society and various researches have shown similar results. Several studies [27] have shown similar results men drank more than did women in bars and public places as well as at private parties and also men had more positive attitude towards drinking alcohol. It appears that attitude towards alcohol consumption mimics the same patterns in depressed and non-depressed populations.

It can be concluded that consumption of alcohol is a function of both personality type and gender. However, the impact is singular and not based on the interaction between personality type and gender.

Limitations

Since the size of sample is very small, it may not represent the universe and the inference drawn from the population may be misleading. The data was collected through self report questionnaires only some individuals were comfortable with English and Hindi questionnaires whereas especially in Mumbai and Ahmedabad, many people preferred Marathi and Gujarati questionnaires. This sample comprised of individuals from Mumbai and Delhi and Ahmedabad which can be a problem in generalizing due to huge cultural factors, level of education, living standards, life style, language differences which was different for these cities. Thus the data collected is not a representative sample of the population. Lastly, the median split was used to divide the population into two equal halves and hence it may not a very appropriate method of categorizing the sample and the special characteristics of ambiverts and their relation to attitude towards alcohol may be undiscovered.

Implications for Practice and Research

The findings of this study have several implications for mental health practitioners, educators and researchers, as the findings of current study shows that introvert males and females both have a positive attitude towards alcohol specially when suffering from depression and preferably when under depression and are bound to get under alcohol abuse in these kind of situations hence, some good intervention programs which can help them and cope with situations effectively can be made and implemented especially targeting the introvert population.

Conceptualization regarding alcoholics and people who engage in alcoholism under stress and severe depressive conditions needs to be based on research that examines the inter-relationships of a broad array of variables. Personality characteristics and the type and severity of parental alcohol dependency likely had differential effects on family functioning. Researchers must grapple with definitional issues regarding alcoholics and move beyond a general, all-inclusive definition of parental alcohol dependency toward a more specific and meaningful categorization. Hence, significantly more research is needed regarding the effects of alcoholism and personality characteristics among persons from diverse ethnic and cultural backgrounds including different cities and even across countries who have historically been under represented in studies, and who have been traditionally under served as there is enormous cross-cultural variation in different countries also. Hence, it also opens a scope for anthropologists and ethnographer for further research on alcohol and differences among cultures. To provide effective interventions (and to enhance resiliency), we must continue to broaden and deepen our understanding of alcoholics and personality characteristics at each opportunity.

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