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Research Paper

A Study on Personality Profile of Alcohol Relapse Patients

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ABSTRACT

Introduction: Relapse is an important problem in recovery from alcohol dependence. A Significant number of patients getting treated relapse back to alcohol dependence. Among the numerous factors determining relapse, personality traits of the individual play a significant role. ***Objectives:*** The present study attempted at the evaluation of the personality profile of alcohol relapse patients, to find out whether certain traits occur more frequently in them and to correlate them with socio-demographic variables. ***Methodology:*** It is a cross-sectional, hospital-based, case-control study conducted at the Institute of Mental Health, Chennai. The study involved 30 cases and an equal number of controls. A minimum period of one month of abstinence from alcohol after treatment was used as inclusion criteria and each case was matched with a control with regard to the duration of relapse. We used 16PF personality questionnaire for assessment. ***Results:*** There was no significant difference in the socio-demographic profile of the two groups. A history of alcohol dependence in family members was found to be statistically significant among cases when compared with controls. In the domains of rule consciousness, social boldness, perfectionism, dominance, vigilance, and tension, a statistically significant difference was noted between cases and controls. ***Conclusion:*** Overall the findings suggest a certain degree of association between some personality traits and alcohol relapse. Along with prospective studies, it might help in planning interventional strategies in future.

Keywords: *Alcohol Dependence, Relapse, Remission, Intrapersonal Determinants, Personality, 16 PF.*

Alcohol dependence is characterized by craving, compulsion, primacy of drinking over other activities and a state of neuronal adaptation leading to physical and mental disturbances on withdrawal. One of the most important problems in recovery from alcohol abuse is relapse. Relapse is a distinct possibility which can happen to anyone who is and has been dependent

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on alcohol. About 70 to 90% of persons with alcohol dependence relapse within three months. (McLellan et al., 2000).

Relapse can be better understood as resulting from an interaction of client-family-, social-, and treatment-related factors. Research into the causes of relapse led to classifying relapse determinants into two broad categories-intrapersonal and interpersonal determinants. Personality traits are an important intrapersonal determinant of relapse (Sandahl C, 1984).

Studies differ widely in the definition of relapse and duration of abstinence before relapse. In some studies, it refers to the initial episode of alcohol use following a period of abstinence (Marlatt GA, 1978). According to Marlatt et al. (1985), relapse refers to a failure to maintain behavior change over time.

DSM IV-TR states four remission specifiers for substance dependence based on the interval of time that has elapsed since the cessation of dependence (early vs sustained remission) and whether there is continued presence of one or more criteria for dependence or abuse (partial vs full remission). According to it, if after a period of remission or recovery, the individual again becomes dependent, in order to apply the early remission specifier there should again be at least one month in which no criteria for dependence or abuse are met.

REVIEW OF LITERATURE

Research by Marlatt et al. (1985), led to classifying relapse into two broad categories, intrapersonal and interpersonal determinants. Intrapersonal factors for relapse include physical illness, positive and negative emotional states, loss of personal control, urges and temptations. Interpersonal precipitants of relapse include relationship conflicts, social pressure and positive emotional states associated with certain interactions with others. In a study by Gorski et al. (1979), the relapse prone group was noted to have deviant personality traits compared to the other two groups**.**

Personality

Allport defined personality as “the dynamic organization within the individual of those psychosocial systems that determine his unique adjustment to his environment”.

Since long it has been hypothesized that personality bears a two-way relationship with relapse. This relationship has been a topic of continuing debate and has led to varied and inconclusive results. However, persons with certain personality traits are more prone to relapse. Neuroticism, novelty seeking, low ego strength and high tension are the variables commonly associated with alcohol relapse when compared with abstaining individuals albeit inconsistently. Adherence to psychosocial interventions, coping skills, attitude towards recovery and self-perception of the ability to withstand stress are important variables which depend heavily on personality traits of the individuals.

Personality and alcohol relapse

Various predictors of relapse include personality profile, life events, mood states, the existence of self- efficacy, coping behaviors, social support resources and intention to avoid high-risk situations (Cummings et al. 1980; Jones and McMahon, 1994; Miller et al. 1996; Isenhart, 1997). Among the variables, personality receives attention, as it relates to the prognosis of alcohol dependence. Rounsaville et al. (1987), in his study on alcohol relapse, concludes that though all personality disorders have been linked to poor treatment outcome in alcoholics, the antisocial personality disorder is especially a strong predictor of early relapse and poor outcome.

Studies by Huber and Danahy (1975), and Shepard et al. (1988) failed to identify personality predictors of relapse. However, Canton et al. (1988) & Tarnai and Young (1983), found that being introverted and having an external locus of control generally predicted relapse and poor prognosis.

Sellman et al. (1997), explored the relationship between the components of Cloninger's tridimensional model of temperament using the tridimensional personality questionnaire (TPQ), When compared with those who did not relapse after 6 months of treatment, subjects who relapsed had lower TPQ persistence scale scores and lower obsessional scores. Works by Janowsky et al. (1999), on alcohol relapse patients, showed increased TPQ novelty seeking scores. Low TPQ persistence scales were related to short-term relapse.

Predicting relapse to substance abuse as a function of personality dimensions was studied by Fisher et al (1998), among 108 alcohol-dependent patients under treatment using NEO-five personality inventory. Analysis showed that the risk of relapse was greatest for those who were both low in conscientiousness and high in neuroticism. The sense of personal weakness and failure generated by a single drink, following abstinence attempts (abstinence violation effect) is one of the considered perspectives of relapse (Marlett GA, 1985).

In a study by Kurt Meszaros et al. (1995) analysis showed that novelty seeking is a strong predictor for relapse in detoxified male patients, but not in females. In both sexes, harm avoidance and reward dependence were of no predictive value. However, a trend for the significance of harm avoidance for predicting "early" relapse (4 weeks) in females was found. Muller et al. (2008) in his study using NEO inventory showed that psychoticism and persistence traits of personality, are useful predictors of the risk of relapse in alcohol-dependent subjects.

Marcin Wojnar et al. (2007), in a review article on alcohol and drug use, reported that negative mood states, impulsiveness and other personality traits, self-efficacy, limited skills to cope with high-risk events and neuro cognitive abnormalities, predicted relapse. Kiran et a. (1984), studied the personality characteristics of alcoholics dropping out of treatment. On the 16 PF questionnaire, although the dropouts differed significantly from the completers on 4 factors (D, I, M, Q) with regard to their mean scores, in terms of the profile interpretation

they differed significantly only on factor Q1. The dropouts appeared to be less symptomatic more skeptical and intolerant of inconvenience and change as compared to the completers.

METHODOLOGY

The study was a Cross-sectional hospital based Case Control study, conducted over a period of five months from May 2009 to September 2009 in the de addiction clinic of the Institute of Mental Health, Madras Medical College, Chennai.

The cases included in the study were consecutive patients aged 20 to 60 years relapsing to alcohol dependence after a period of minimum one month of abstinence. Alcohol-dependent patients in the age group of 20 to 60 years who did not relapse and were coming for regular follow up were chosen as controls. They were matched with cases with regard to the time to relapse.

Persons with other axis one disorders, concomitant substance abuse other than alcohol, comorbid medical complications were excluded from both the groups.

Definition of relapse

In this study, we defined relapse as a condition in which a previously alcohol-dependent individual on treatment, reverts back to dependence pattern after a minimum one-month period of abstinence. This is based on DSM IV-TR course specifier for substance dependence which specifies that there should be a period of at least one month of abstinence during which no criteria for dependence or abuse are met for application of early remission specifier.

The study was discussed and approved by the Ethics Committee of the research panel of the Hospital. The cases were selected from a screened sample of 50 consecutive patients who relapsed after a period of minimum one month of abstinence. Informed consent was obtained from all the patients. Of the 50 patients 8 expressed unwillingness to participate, 7 had medical complications and 5 had psychotic features and hence they were excluded. Finally, a sample of 30 patients constituted the study group. They were assessed using routine blood investigations and liver function tests.

The control group was patients diagnosed as alcohol dependence coming for regular follow up at the de-addiction clinic. They were under standard treatment and were maintaining abstinence. Each control was matched to the case with regard to the time to relapse. E.g., a case who relapsed after two months of abstinence was matched with a control who follows up at two months of abstinence. Hence a group of 30 patients constituted the control group. The instruments were administered at the de-addiction clinic after obtaining an informed consent.

Instruments used

1. 16 PF questionnaire - Form E (Catell, 1970).
2. Proforma-Information regarding age, sex, education, occupation, religion, marital status, type of family, family history of alcohol dependence was obtained.

The sixteen personality factor questionnaire (Catell)

The sixteen personality factor questionnaire is an objectively scorable test. Form E is designed for individuals with marked educational and/or reading deficits.

Personality is measured on 16 independent dimensions or factors. Any item in the scale contributes to the score on one and only one factor so that no dependencies are introduced. Moreover, the correlations among the sixteen scales are generally quite small so that each scale provides new information about the person being tested. Each factor is given a raw score from 1 to 10. The raw scores are converted to a 'standard ten (Sten) score' distributed over ten equal interval standard score points (assuming normal distribution) from 1 through 10. The population average for a Sten distribution is fixed at 5.5 and the standard deviation is 2 Sten scores. One would normally consider Sten scores of 4 through 7 to be average since they fall within one standard deviation of the population mean. Sten scores of 1, 2, 3(low scores) and 8, 9, 10(high scores) are generally considered to be of greater importance for profile interpretation since they are more extreme and occur far less frequently in a normal population.

The form E of the 16 PF was used for the study since it was noted that most of the treatment-seeking population in our hospital had only minimal formal education. The subjects were not very proficient in English and hence a Tamil translated version was given to the subjects.

The primary traits covered by the 16 PF test:

Factor	Low Sten score description	High Sten score description
A (warmth)	Cool, reserved, impersonal, detached, formal, aloof.	Warm, outgoing, kindly, easygoing, participating, likes people.
B (reasoning)	Concrete thinking, less intelligent	Abstract thinking, more intelligent, bright.
C (emotional stability)	Affected by feelings, emotionally less stable, annoyed.	Emotionally stable, mature, faces reality.
E (dominance)	Submissive, humble, mild, easily led, accommodating.	Dominant, assertive, aggressive, stubborn.
F (liveliness)	Sober, restrained, prudent, serious.	Enthusiastic, spontaneous, heedless, expressive, cheerful.
G (rule consciousness)	Expedient, disregards rules, self-indulgent.	Conscientious, conforming, moralistic, rule-bound.
H (social boldness)	Shy, threat sensitive, timid.	Bold, venturesome, uninhibited.
I (sensitivity)	Tough-minded, self-reliant, rough, realistic.	Tender minded, sensitive, over protected.
L (vigilance)	Trusting, accepting condition, easy to get on with.	Suspicious, hard to fool, distrustful, skeptical.

Factor	Low Sten score description	High Sten score description
M (abstractedness)	Practical, careful, steady, conventional.	Imaginative, absent minded, impractical.
N (privateness)	Forthright, unpretentious, open, genuine, artless.	Shrewd, polished, socially aware, diplomatic.
O (apprehension)	Self-assured, secure, feels free of guilt, untroubled, self-satisfied.	Apprehensive, self-blaming, guilt-prone, insecure, worrying.
Q1 (openness to change)	Conservative, respecting traditional ideas.	Experimenting, liberal, critical, open to change.
Q2 (self- reliance)	Group-oriented, affiliative, listens to others.	Self-sufficient, resourceful, prefers own decisions.
Q3 (perfectionism)	Lax, careless of social rules, impulsive, uncontrolled	Socially precise, compulsive.
Q4 (tension)	Relaxed, placid, tranquil, torpid, patient, composed low drive.	Tense, high energy, impatient, driven, frustrated, over wrought, time driven.

Data analysis was done using the univariate technique. The Two-tailed test was applied for all analysis.

RESULTS

Table 1, Comparison of socio-demographic variables of cases and controls

Demographic variable	Cases	Controls	p-Value
Mean age	35.4	36.6	0.54
Education			
Primary	19	15	
Secondary	8	10	0.25
Higher secondary	3	5	
Occupation			
Unskilled	18	14	0.30
Skilled	12	16	
Marital status			
Married	26	28	
Separated	2	1	0.45
Unmarried	2	1	
Family type			
Nuclear	3	7	0.17
Joint	27	23	
Religion			
Hindu	25	24	
Muslim	2	4	0.74
Christian	3	2	
Family history	23	14	0.01

Table 2, Mean STEN score comparison of cases and controls' personality profile in 16 PF

16 PF PROFILE	CASES	CONTROLS	P VALUE
A	4.03	3.88	0.44
B	4.03	3.90	0.48
C	3.83	3.53	0.41
E	**6.70**	**5.02**	**0.002**
F	4.40	4.21	0.32
G	**3.88**	**4.97**	**0.01**
H	**4.86**	**5.57**	**0.007**
I	4.96	5.06	0.69
L	**6.06**	**5.13**	**0.01**
M	4.60	4.38	0.16
N	4.13	3.90	0.47
O	4.66	4.36	0.19
Q1	5.70	5.56	0.57
Q2	5.60	5.36	0.38
Q3	**4.43**	**6.00**	**0.03**
Q4	**6.70**	**5.80**	**0.001**

Table 2 shows the mean Sten scores of the two groups. It shows that the cases as a group, score lower than average on the factors G, H, Q3 when compared to controls. They also score significantly higher than average on factors E, Q4, and L when compared to controls.

Table 3, Comparison of the proportion of cases and controls on low scores (1-3) on the 16 PF

16 PF PROFILE	CASES(n)	CONTROLS(n)	P VALUE
A	9	13	0.66
B	8	9	0.29
C	6	9	0.33
E	3	4	0.59
F	4	5	0.34
G	18	9	0.001
H	10	3	0.007
I	0	0	-
L	3	5	0.78
M	10	8	0.13
N	12	10	0.29
O	4	6	0.22
Q1	3	2	0.35
Q2	4	3	0.54
Q3	27	15	0.03
Q4	4	3	0.54

Table 3 shows the low scores (1-3) of the two groups which indicate that significantly more number of cases score low on factors G, H, and Q3.

Table 4, Comparison of the proportion of cases and controls on high scores (8-10) on the 16 PF

16 PF	CASES(n)	CONTROLS(n)	P VALUE
A	3	4	0.59
B	2	3	0.92
C	0	0	0.67
E	11	4	0.002
F	3	3	0.59
G	3	2	0.35
H	2	1	-
I	5	4	0.43
L	6	1	0.01
M	1	2	0.92
N	3	5	0.78
O	0	0	
Q1	5	4	0.33
Q2	3	2	0.35
Q3	2	4	0.22
Q4	11	3	0.001

Table 4 shows the high scores (8-10) of the two groups. It turns out that significantly more number of cases score high on factors E, L, and Q4.

DISCUSSION

In the present study, alcohol relapse patients did not differ significantly from the non-relapse patients in their socio-demographic profiles. There was no statistically significant difference in terms of age, education, occupation, marital status, type of family and religion. However, these findings are not concordant with that of Cronkite and Moos (1980) who point out that patients with a higher socio-demographic status are more likely to possess less severe intake symptoms, are more likely to enter treatment, and are more likely to participate actively in treatment which may lead to a better outcome. Individuals from the lower socioeconomic levels are more likely to return to relapse.

In this study, when compared to patients who did not relapse to alcohol dependence, patients who relapsed to alcohol dependence, as a group, deviate significantly towards low scores on factors G, H, Q3 and towards high on factor E, L, Q4.

Patients who relapsed to alcohol dependence score low on factor G (rule consciousness). They tend to be unsteady in purpose. They are often casual and lacking in effort for group undertakings and cultural demands. Their freedom from group influence may lead to antisocial acts. These findings are supported by Rounsaville et al. (1987), who concluded that antisocial personality disorder as such appears to be a good predictor of early relapse. Sellman et al. (1997), found that when compared with those who did not relapse after 6 months of treatment, subjects who relapsed had lower TPQ persistence scale scores.

Patients who relapsed to alcohol dependence score low on factor H (social boldness). They are timid, threat sensitive, hesitant and intimidated. They usually have inferior feelings and tend to be slow and impeded in speech and in expressing themselves. They prefer one or two close friends to large groups. These findings are supported by the findings of Tarnai and Young et al. (1983), who found that being introverted generally predicts relapse and poor prognosis. The findings are also supported by Janowsky et al. (1999) who found that patients who score high on tridimensional personality questionnaire harm avoidance and on shyness with strangers' subscale are less likely to attend group therapy sessions on follow up

Patients who relapsed to alcohol dependence score low on factor Q3 (perfectionism). They are lax, careless of social rules. They are not bothered with will control, impulsive and have little regard for social demands. They are impetuous and not overly considerate, careful or painstaking. The finding is supported by Neeliyara et al. (1985) and McGue et al. (1997), who had stated that alcohol relapse patients scored significantly higher on all indicators of negative emotionality and consistently lower on indicators of constraints. The findings also corroborate with that of Schuckit et al. (2009), who has confirmed the influence of traits related to impulsivity and sensation seeking, in alcohol relapse.

Patients who relapsed to alcohol dependence score high on factor E (dominance). They are dominant, aggressive, stubborn, competitive and bossy. They tend to be austere, a law unto themselves, hostile, authoritarian and disregarding of authority. These findings are consistent with that of Christina et al. (2009), who states that individuals with antisocial personality disorder (ASPD) were found to be twice as likely to relapse in response to life stressors compared to individuals.

Patients who relapsed to alcohol dependence score high on factor L(vigilance). They tend to be mistrusting and doubtful. They are often involved in their own egos. Usually, they are deliberate in their actions, unconcerned about other people and poor team members. These findings are supported by that of Kiran et al. (1984), who state that patients who drop out of treatment appeared to be less symptomatic, more skeptical and tolerant of inconvenience and change as compared to those who completed treatment.

Patients who relapsed to alcohol dependence score high on factor Q4 which stand for tension. They are tense, frustrated, overwrought, restless and hard driving. They are often fatigued, but unable to remain inactive, extremely high tension level may disrupt work performance. These findings are consistent with that of Scheier et al (1997) wherein neuroticism traits appear as a predictor of alcohol relapse in adolescents. Fisher et al. (1998), in a study on alcohol-dependent individuals, showed that neuroticism was a significant predictor of relapse.

In addition, both the relapse patients and non-relapse patients score lower than average on factors A, B, C, F, M, N, and O but they did not attain any statistical significance. It might be interpreted that both the cases and controls may share these personality traits in common.

Another important finding in this study is that subjects had a family history of alcohol dependence in 76.7 % of cases and in 46.6% of controls. It was statistically significant. Even though no structured interview was done to elicit information about family history of alcohol dependence, the interview was one to one and cross-checked with the relatives wherever possible. The finding suggests that patients with family history of alcohol dependence were more prone to relapse.

LIMITATIONS

The study was done only with male patients. The female population could not be included because of the scarcity of the samples. The study was conducted in a tertiary care hospital and hence it may not be representative of the population. Since this is not a prospective study it is difficult to discern whether the observed variations in personality traits are the cause or result. Abstinence in control groups was assessed only from the history given by the controls and relatives. No objective measure was used.

CONCLUSION

The personality trait deviations of the alcohol relapse patients turned out to be significant as compared to abstinent individuals both on mean scores and on proportions. This finding indicates some degree of association between these traits and alcohol relapse.

These findings may have significance on the interventional strategies against alcohol relapse. For example, in planning interventional strategies, those with low superego strength and low frustration tolerance may benefit from coping skills program. This may help in conserving and effectively utilizing the resources available.

It helps to predict at-risk group for relapse and hence to plan effective strategies for early identification and treatment of relapsing individuals.

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