

Relationship of Anger with Alcohol use Treatment Outcome: Follow-up Study

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ABSTRACT

Background: Anger is seen as comorbid condition in psychiatric conditions. It has an impact on one's quality of life. It leads to variation in the treatment outcome. The present study is going to explore the relationship of anger with treatment outcome among alcohol users after 1 year of treatment. The data for the present study were taken from the project work on correlates of anger among alcohol users, funded by center for addiction medicine, NIMHANS, Bengaluru, Karnataka, India. **Materials and Methods:** A total of 100 males (50 alcohol-dependent and 50 abstainers) in the age range of 20–45 years with a primary diagnosis of alcohol dependence were taken for the study. They were administered a semi-structured interview schedule to obtain information about sociodemographic details, information about alcohol use, its relationship with anger and its effects on anger control and the State-Trait Anger Expression Inventory. **Results:** 68% of the dependent and abstainers perceived anger as negative emotion and 76% in control perceived it as negative. The presence of significant difference was seen for relapsers group in relation to trait anger and state anger. The group who remained abstinent from the intake to follow-up differs significantly from the dependent group in relation to state anger and anger control out. Mean score was higher on trait anger for the dependent group. **Conclusions:** It has implication for anger management intervention/matching of treatment with users attributes and helping the users to develop the behavioral repertoires to manage anger.

Key words: Alcohol use, anger, outcome, treatment

INTRODUCTION

Anger is seen as a negative phenomenological experience that exists on a continuum (a continuum of healthy-disturbed, adaptive-maladaptive, constructive-destructive, and pragmatic-problematic)

in which the frequency, the intensity and the duration of the experience, along with the expressive (i.e., subjective, physiological, interpretive, and behavioral) characteristics, often leads to significant psychosocial

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impairment.^[1] It is a potential mediator in many psychiatric conditions, including affective disorders, substance use disorders, and posttraumatic stress disorder.^[1-3] Negative affect such as depression, anger, hostility, and aggression were seen as risk factors among pregnant persistent smokers.^[4] Difficulty in controlling anger in interpersonal relations may be seen especially among individuals suffering from alcohol and substance dependence, schizophrenia, bipolar disorder, depression, and generalized anxiety disorder. Alcohol use facilitates episodes of physical aggression. The use of alcohol and cocaine was associated with significant increases in the daily likelihood of male-to-female physical aggression.^[5] The form of anger expression was significantly related to the likelihood and the intensity of anger as well as the type of the consequences associated with the emotional state.^[6] Trait anger was also associated with decreased quality of life and anger expression, whereas state anger was related with better quality of life and anger control among 50 alcohol dependent (as per International Classification of Diseases-10 criteria), 50 abstainers (diagnosed of alcohol dependence but currently maintaining abstinence from alcohol for the last 3 months), and 50 social drinker (no lifetime use of >2 standard drinks per day). Alcohol dependent group had high mean scores for state anger, trait anger, and expression/experience of anger. They had lower anger control. The dependent group had low mean scores in physical health, psychological health, and social relationship beside environment domains. The quality of life has a correlation with anger control (in/out), trait anger, temperament, and reaction in the control and abstainers group, whereas the quality of life has negative correlation with trait anger expression among the alcohol group. Anger was perceived as negative emotion across the three groups. Dependent users and abstainers reported a significant impact of alcohol use on family and occupational functioning.^[7] Anger is also seen to bring variance in the treatment outcome in a 9 months follow-up study.^[8] 1726 participants were assessed for drinking frequency and percentage of days of abstinence and average drinks per drinking day. Pretreatment Beck Depression Inventory scores were associated with more frequent and intense drinking in the year following treatment. The presence of depressive symptoms in the year following treatment was associated with shorter period of abstinence and more intense drinking.^[9] Poor outcome among subjects attending de-addiction service was associated with psychosocial problems, family history of alcoholism were associated with poor outcome.^[10] Higher rates of relapse (i.e., a return to heavy drinking) have been observed among individuals with comorbid affective disorders.^[11] There is dearth of work to assess the relationship of anger with treatment outcome among alcohol users. The present investigation examined the

relationship of anger with treatment outcome at 1-year interval.

MATERIALS AND METHODS

Aim

This study aims to examine the relationship of anger with treatment outcome among alcohol users after 1 year of treatment.

Procedure

The study was reviewed and approved by the NIMHANS Ethics Committee. The data for the present study were taken from the project work on correlates of anger among alcohol users, funded by center for addiction medicine, NIMHANS, Bengaluru. A total of 100 male patients in the age range of 20–45 years with a primary diagnosis of alcohol dependence were taken for the study. It was drawn from the community (the hospital staff, educational institutions, and workplaces) using a snowballing approach. It included two groups: Group I consisted of fifty patients with active alcohol dependence drawn from both outpatient and inpatient settings. Group II consisted of fifty who had been diagnosed of alcohol dependence but maintaining abstinence from alcohol for the past 3 months at the time of intake. Subjects who had organic disorders, polysubstance use (except nicotine), psychosis, or sensory deficits were excluded from the study. They were administered a semi-structured interview schedule to obtain information about sociodemographic details, information about alcohol use, its relationship with anger and its effects on anger control and the State-Trait Anger Expression Inventory. State-Trait Anger Expression Inventory is a 57-item self-report questionnaire. It can be used with adult population. It consists of six scales and an anger expression index. The scales are State anger, Trait anger, Anger expression-out, Anger control-out, Anger control in, and Anger expression index. An overall index of the frequency of anger expression, regardless of direction. Internal consistency reliability has a value of α ranging from 0.73 to 0.95 for the total scale and from 0.73 to 0.93 for the subscales. Each assessment session lasted about 30 min, and all the subjects were assured of confidentiality. They were followed up at 1 year interval (through file records in terms of a regular visit to the de-addiction outpatient department/absence of follow-up/change in their alcohol use/telephone contacts). 76 subjects (37 dependents/39 abstainers) information was available at 1 year follow-up.

Statistical analysis

The relationship of state/trait anger with treatment outcome among alcohol users was assessed through percentage score, mean and standard deviation.

RESULTS

Sixty-eight percent of the dependent and abstainers' perceived anger as negative emotion and 76% in control perceived it as negative. Majority of the dependent and abstainers attributed it to personal reasons (persisting irritation, frustration, negative attitude toward the alcohol users, decrease communication with others). 60% of the dependent and abstainers experienced it significant impact on family (decrease communication with wife, frequent fights) and workplace area (loss of job and conflict with employers). There was no significant difference in relation to age on onset of drinking, occupation, and education.

Table 1 indicates that the relapse rate is higher among the abstinent and it is statistically significant ($P = 0.001$) and in case of dependent subjects, more number of people are abstainers. They are 36 abstainers and 40 relapsers at 1-year follow-up.

From Table 2, the mean scores of Anger expression out, anger expression in, anger expression outside, and anger control inside among the two groups and they are not statistically significant. The mean scores of trait anger and state anger of relapsers are significantly different from the abstainers.

Table 3 indicates the presence of higher mean score on trait anger for dependent group.

DISCUSSION AND CONCLUSIONS

The present study indicates that alcohol dependents group have 69.4% abstainers and 30% relapse, whereas in the abstainers group have 30.6% abstainers and 70% relapse. Group did not differ in relation to age of onset of drinking, occupation, and education. They were 36 abstainers and 40 relapsers at 1 year follow-up as well as the presence of significant difference were seen for relapsers group in relation to trait anger and state anger [Table 2]. The group who remained abstinent from the intake to follow-up differs significantly from the dependent group in relation to state anger and anger control out. Mean score was higher on trait anger for dependent group [Table 3]. It was corroborated by other available studies. The client's high anger and low percentage of days abstinent at baseline was found to predict low percentage of days abstinent at follow-up.^[12] Alcohol facilitates aggression to a greater extent among individuals who are predisposed to behave aggressively.^[13,14] Studies also indicate that higher levels of trait anger,^[15,16] irritability,^[17] and trait anger, as well as lower level of anger control^[18], enhanced the expression of intoxicated aggression. People with high levels of trait anger and alcohol

Table 1: Percentage of abstainers/relapsers among dependent and abstinent group at 1 year follow up

	Dependent at point of data collection (%)	Abstinent at point of data collection (%)	Total
Abstainers at follow-up	25 (69.40)	11 (30.60)	36
Relapsed at follow-up	12 (30.00)	28 (70.00)	40
Total	37 (48.70)	39 (51.30)	76

Table 2: Comparison of groups (abstainer and relapser) on state anger, trait anger, anger expression, and anger control

Dimensions	Abstainers (n=36)		Relapser (n=40)		Significant
	Mean	SD	Mean	SD	
Trait anger	45.44	3.193	49.25	8.148	0.001
State anger	15.92	2.089	18.15	4.594	0.001
Anger expression out	18.61	4.29	18.15	4.447	0.648
Anger expression in	17.92	3.691	18.48	1.801	0.211
Anger control outside	20.53	4.246	21.15	4.481	0.664
Anger control inside	21.78	4.304	20.65	4.726	0.305

SD – Standard deviation

Table 3: Comparison of abstainer and dependent during the study

Anger score	Group	Mean	F	Significant
State anger	Abstainers (22)	41.620	2.974	0.038
	Dependent (30)	13.994		
Trait anger	Abstainers (22)	23.108	0.764	0.518
	Dependent (30)	30.245		
Anger expression out	Abstainers (22)	24.868	1.233	0.305
	Dependent (30)	20.161		
Anger control out	Abstainers (22)	73.354	4.842	0.004
	Dependent (30)	15.150		
Anger expression in	Abstainers (22)	12.366	1.245	0.301
	Dependent (30)	9.936		
Anger control in	Abstainers (22)	27.272	1.261	0.295
	Dependent (30)	21.621		

consumption showed the lowest levels of anger control in intoxicated states.^[19] Trait of general anger is seen as a risk factor for intoxicated aggression.^[16,18] The alcohol along with drug using participants showed significantly more impairments in anger management styles.^[20] Males who abuse alcohol, experience and express more anger than males who do not abuse alcohol. Experience and expression of anger was also related to the poor coping styles and expectancies regarding the effects of alcohol for males who abuse alcohol.^[21] Those with high levels of trait anger and alcohol consumption showed the lowest levels of anger control in self-reported alcohol intoxicated states.^[19] The co-occurrence of high levels of trait aggression and alcohol dependence was mediated by the comorbidity of alcohol dependence with the antisocial personality disorder.^[22] People with high trait anger often felt they

were treated unfairly and felt frustrated and it had impacts on alcohol use.^[23]

The present work provided the information on role of anger on treatment outcome among dependent and abstainers. Dependent group has higher trait anger. Relapsers group differ from the abstainer group in relation to the presence of trait and state anger. It highlights the integration of screening of anger among alcohol users at de-addiction center as well as the use of anger management strategies as a part of psychosocial intervention. It has a limitation in term of findings were based on file records/telephone contacts and other comorbid personality and psychiatric issues were not assessed.

Future research in this area can focus on inclusion of anger management intervention/matching of treatment with patient attributes and helping the patients to develop the behavioral repertoires to manage anger.

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Conflicts of interest

There are no conflicts of interest.

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