# Comparative Assessment of Factors Contributing to Relapse in Alcohol Dependence

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**Abstract:**

**Introduction:** Alcoholism is a mental condition characterised by a combination of physiological, psychological, and social challenges, and it often follows a pattern of recurring episodes. Relapse is a multifaceted and ever-changing issue in the field of therapeutic concern, which seems to be influenced by biological, psychological, and social variables. The current research aimed to evaluate the risk variables associated with relapse in individuals diagnosed with alcohol dependency.

**Materials and Methods:** A total of 60 subjects, who were over 21 years of age and had alcohol dependency were considered. Based on their alcohol dependence level participants were randomized into group A (n=30) who had a recurrence of alcohol dependency after appropriate treatment and Group B (n=30) diagnosed with alcohol dependence who used alcohol during the last 12 months, as determined by the International Classification of Diseases, 10th edition (ICD-10) and also followed to determine personality disorders among the participants.

**Results:** The comparison of age, economic status, educational status, and occupational status yielded statistically significant results (p<0.05). The SDAQ score depicted that 56.67% & 67.67% had severe grade, 30% & 20% had moderate and 13.33% each had mild alcohol dependence in group A and group B respectively. The main reason for relapse is cravings on alcohol (36.67%), familial disturbances (23.33%), unemployment (23.33%), and financial disturbances (16.67%).

**Conclusion:** Relapsed group members were shown to have significant predictors that included cravings on alcohol, familial disturbances, unemployment, and financial disturbances. Increasing one's sense of self-efficacy and fostering social support should be the primary focuses of individual and family counselling activities.

**Keywords:** SDAQ score, Alcohol dependence, Relapse, Personality disturbances, stress.

## Introduction

Alcoholism is a major public health hazard globally, accounting for 4% of all deaths [1]. According to the World Health Organisation (WHO), around 2 billion people drink alcohol and associated goods. Approximately 76.3 million persons were at risk for alcohol-related problems [2]. In India, 62.5 million individuals use alcohol, and 90% of alcoholics have at least one relapse in the four years after de-addiction [3].

Alcohol dependency is a prevalent psychiatric condition that causes major social and physical issues. It is defined by psychological, physiological, and social dysfunctions linked with excessive and chronic alcohol consumption [4].

Relapse is defined as resuming drug usage after a period of sobriety. Several variables, including alcohol cravings, positive family history, stress and social issues, have been linked to relapse [5,6].

Several studies from United Stated and India reported that factors such as age, unemployment, religion, marital disturbances, early initiation, undesirable events, and prolonged duration of abuse are linked to relapse [7,8]. Clinicians must have a thorough understanding of the variables associated with recurrence in order to develop effective methods to mitigate relapse [9].

Several studies found that the outcomes varied depending on geographic location, race, and culture. Assessment of risk factors for relapse in the Indian setting may be fascinating owing to its diverse cultures, people, and features [10,11]. Due to the limited availability of literature in the present research settings, this study was conducted to analyse the risk factors for relapse among instances of alcohol dependence at tertiary care hospital.

## Material and Methods

This comparative research was carried out at the Department of Psychiatry at Fatima Institute of Medical Sciences, Kadapa, from April 2021 to March 2022. A total of 60 volunteers, who were over 21 years of age and had alcohol dependency, were included in the study. Individuals who did not meet the criteria for alcohol dependency, were categorised under substance misuse other than alcohol, and had a history of mental disease were excluded from the study.

Research participants provided written informed permission, and the research methodology underwent evaluation and approval by the institutional ethics committee. Participants were randomly assigned to two groups based on their alcohol dependence level. Group A consists of 30 individuals who had a recurrence of alcohol dependency after appropriate treatment. Group B comprises 30 individuals diagnosed with alcohol dependence who used alcohol during the last 12 months, as determined by the International Classification of Diseases, 10th edition (ICD-10). The comprehensive patient information was collected using a semi structured patient proforma.

The diagnosis of alcohol dependency was made based on the criteria outlined in the International Classification of Diseases-10 (ICD-10) recommendations. The individuals' stressful experiences were evaluated using the probable stressful life event scale. Personality disorders were evaluated using the ICD-10 International Personality Disorder Examination.

The statistical analysis was performed using SPSS version 26.0. A comparative analysis was performed using the chi-square test, with the results provided in terms of frequency and percentage. A p-value of less than 0.05 was regarded as a statistically significant result.

**Results**

### Table 1: Distribution of cases based on sociodemographic characteristics

| Demographic variables | Group A (n=30) Frequency (%) | Group B (n=30) Frequency (%) | p-value |
|---|---|---|---|
| **Age** | 38.26±3.08 | 37.68±2.12 | 0.026 |
| **Gender** | | | |
| Male | 26 (86.67%) | 28 (93.3%%) | 0.952 |
| Female | 04 (13.33%) | 02 (6.67%) | |
| **Economic status** | | | |
| ≤30000 | 20 (66.67%) | 21 (70%) | 0.025 |
| >30000 | 10 (33.33%) | 09 (30%) | |
| **Residential status** | | | |
| Urban | 26 (68.42%) | 29 (76.32%) | 0.655 |
| Rural | 12 (31.58%) | 09 (23.68%) | |
| **Educational status** | | | |
| Illiterate | 12 (40%) | 13 (43.33%) | 0.0384 |
| Primary & upper grade | 14 (46.67%)) | 15 (40%) | |
| Graduation & above | 04 (13.33%) | 02 (6.67%) | |
| **Occupation** | | | |
| Unemployed | 15 (50%) | 12 (40%) | 0.001 |
| Daily wage workers | 10 (33.33%) | 04 (13.33%) | |
| Skilled workers | 01 (3.33%) | 08 (26.67%) | |
| Professional | 04 (13.33%) | 06 (20%) | |

### Table 2: Details of Alcoholic dependence and family history of study participants

| Details of Alcohol dependence | Group A (n=30) Frequency (%) | Group B (n=30) Frequency (%) | p-value |
|---|---|---|---|
| **SADQ score** | | | |
| Severe | 17 (56.67%) | 20 (67.67%) | - |
| Moderate | 09 (30%) | 06 (20%) | |
| Mild | 04 (13.33%) | 04 (13.33% | |
| **Age at onset of drinking** | | | |
| <21 years | 10 (33.33%%) | 13 (43.33%%) | 0.0126 |
| >21 years | 20 (66.67%%) | 17 (57.67%%) | |
| **Family history** | | | |
| Positive | 22 (73.33%5%) | 09 (30%) | 0.001 |
| Negative | 08 (26.67%%) | 21 (70%) | |

| Alcohol consumption per day (in ml) | | | |
|---|---|---|---|
| 250-500 | 18 (60%) | 16 (53.33%) | 0.001 |
| Above 500 | 12 (40%) | 14 (36.67%) | |
| Duration of alcoholism | | | |
| <15 years | 13 (43.33%) | 14 (36.67%) | 0.0261 |
| >15 years | 17 (56.67%) | 16 (53.33%) | |

**Table 3: Adverse events of personality in study groups**

| Variables | Group A (n=30) | Group B (n=30) |
|---|---|---|
| | Frequency (%) | Frequency (%) |
| Anxious disorders | 10 (33.33%) | 10 |
| Paranoid personality | 10 | 12 |
| Impulsive personality | 10 | 08 |
| Dependent personality | 08 | 08 |
| Anankastic personality | 01 | 02 |

## Discussion

In group A, the average age was 38.26 years, whereas in group B it was 37.68 years, with a male predominance. In group A, 66.67% of families had an income below thirty thousand, while 33.33% had an income over thirty thousand. In group B, 70% of families had an income below thirty thousand, while 30% had an income beyond thirty thousand. The majority of participants resided in urban areas. In group A, 46.67% of individuals possess elementary and upper grade education, 40% are illiterate, and 13.33% have attained a graduate level education or above. Within group B, 43.33% of individuals lack literacy skills, 40% have completed elementary and upper grade education, and 6.67% have attained a graduate degree or higher.

The majority of individuals in both study groups were unemployed. Subsequently, there are daily wage labourers, skilled workers, and professional personnel. The comparison of age, economic status, educational status, and occupational status yielded statistically significant results (p<0.05). However, the variables of gender and residence status do not show statistical significance (p>0.05) (Table 1). A study conducted by Rampure R et al. revealed that the age group most often seen was between 31 to 40 years. This finding is consistent with the research conducted by York JL et al., who reported that alcohol consumption reaches its highest point around the age of 40 years [12,13]. According to the International Society for Biomedical Research on Alcoholism (ISBRA), there is a positive correlation between age and alcohol use [14]. Similarly, the majority of participants in our research were aged 40 years or older.

The SDAQ score indicated that 56.67% of individuals in group A and 67.67% of participants in group B had severe grade alcohol dependence. 30% of individuals in group A exhibited a moderate grade, while 20% of subjects in group B had the same level of severity. Additionally, 13.33% of participants in both group A and group B showed mild alcohol dependence. In group A, the age at which alcohol use began was below 21 years for 33.33% of individuals and over 21 years for 66.67% of individuals. In group B, the corresponding percentages were 43.33% and 57.67% respectively. Group A had a 73.33% occurrence of alcohol dependence in their family history, whereas group B had a 30% occurrence. In group A, 60% of patients drank between 250-500 ml of alcohol per day, while 40% used more than 500 ml. In group B, 53.33% consumed between 250-500 ml per day, while 36.67% consumed more than 500 ml. The statistical analysis revealed a significant correlation (p<0.05) between the age at which alcoholism began, family history of alcoholism, length of alcoholism, and the amount of alcohol consumed (Table 2). A study by Rampure R et al. revealed that 39.3% of the individuals began alcohol use prior to reaching the age of 20, with a mean age of 20.9±6.3 years [12]. Chauhan et al., discovered that the average age at which individuals begin using alcohol is 26.12 years [15]. In a cohort study conducted in Japan, Suzuki et al. found that three significant factors associated with the development of early alcohol dependence syndrome in adolescents were: a younger age at the first drink, a tendency to not refuse friends' invitations to drink, and limited communication with parents [16].

Relapse is most often caused by curiosity, lack of desired life events, intense desires, inadequate interpersonal support, and peer pressure, according to Rampure R et al. [12]. Chauhan VS et al. found that positive family history of drug addiction, familial conflicts, personal conflicts, social anxiety, social problems, negative mood states, and unwanted life events were linked with relapse [15]. Jayaseelan and Bakyaraj found that stressful life situations often caused relapses [17]. Relapse is caused by intense desires, weak motivation, family disputes, and peer pressure, according to Korlakunta et al. [18]. According to Vijayan V et

al., psychological, social, and family variables are the main risk factors for relapse [19]. According to Markose A et al., factors such as high alcohol cravings (82%), enjoyable experiences (77%), family difficulties (85.5%), financial issues (63.9%), and loss of loved ones (41.2%) trigger relapse [20]. Kumar P et al. found that desire (98%) and weak motivation (84%) caused alcohol dependency relapse, followed by stressful situations (76%), peer pressure (54%), and withdrawal (24%) [21]. Vihram R et al. found that family issues, peer pressure, and desire cause alcohol dependency relapse [22]. According to Afkar A et al., individual, familial, cultural, societal, and economic issues were key causes of addiction relapse [23]. In present study, majority participants were under stress in group A. The main reason for relapse is cravings on alcohol (36.67%), familial disturbances (23.33%), unemployment (23.33%), and financial disturbances (16.67%). This research includes few participants and is confined to tertiary care hospitals. The community level research must be expanded to discover alcohol dependency relapse variables.

## Conclusion

Alcohol dependence is the primary factor in the development of a number of diseases and impairments. Relapsed group members were shown to have significant predictors that included cravings on alcohol, familial disturbances, unemployment, and financial disturbances. The findings led to the conclusion that these factors were important predictors. Increasing one's sense of self-efficacy and fostering social support should be the primary focuses of individual and family counselling activities.

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