

## Research Article

# Alcohol Abstinence and Relapse in ALD Patients, Predicting the Unpredictable

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### Abstract

**Objectives:** Alcoholism is a chronic relapsing disorder. Alcoholism is common, and continues to be the source of great cost to afflicted individuals, their families and the community at large. Alcohol dependence is characterized by a prolonged course of alcohol-related problems and a persistent vulnerability to relapse. Even though there is an improvement in multiple domains of life after alcohol treatment, the risk of relapse remains high following treatment. This prospective and retrospective study of 451 patients with alcohol use disorders was done with an intent to assess various factors affecting remission and relapse and improve outcome for individuals with alcohol dependence. Demographic variables, clinical parameters and certain psychosocial factors were evaluated. Early identification of risk factors may help us in defining a more rigorous follow up protocol in these sub group of patients.

**Methods:** Patients with ethanol related liver disease and alcohol dependence were enrolled after their presentation in gastroenterology clinic and followed thereafter at 1, 3, 6, and 12 months. Initial assessments included USG abdomen LFT RFT, UGI Endoscopy and other relevant investigations. Semi structured clinical interviews, the Symptom Checklist 90-Revised (SCL90-R), Addiction Severity Index (ASI), the Beck Depression Inventory (BDI) were recorded. High-Risk Alcoholism Relapse Scale based score was calculated. 2 Patients were reassessed at six and twelve months to determine treatment outcome (abstinence status and duration of continuous abstinence). Data were coded, validated and analyzed using descriptive statistics.

**Results:** A majority of the sample 70 percent (n=315) had significant psychiatric symptoms at intake: 22 percent (N=70) presented with depressive symptoms, 17 percent (N=15) with anxiety symptoms, and 41 percent (N=192) with combined depressive and anxiety symptoms. Forty percent of patients who presented with combined depression and anxiety symptoms were abstinent at six months. These patients had worse prognosis than less symptomatic cohort at intake, including those who presented with depression symptoms alone; in the latter group, 60 percent were abstinent at six months. Key predictor variables included days in treatment, primary drug of abuse, frequency of drug use, and report of concurrent depression or anxiety symptoms at intake.

**Conclusions:** Concurrent depression or anxiety symptoms low education, lack of motivation for abstinence had a significant negative predictive effect on treatment outcome. Craving was noted as most common cause for relapse in alcohol dependent patients. Higher relapse rate was seen in concomitant opioid dependence, high risk' situations, previous relapses Positive predictors were more number of coping strategies, principally adaptive ones. There is significant association between age at first drink, age at dependence, duration of dependence, other Co-morbid diagnosis of patients and relapse. Early consideration of these risk factors and more rigorous follow up can help in reducing incidence of relapses.

## Introduction and Objective

Alcoholism is common, and continues to be the source of great cost to afflicted individuals, their families and the community at large. Alcoholism is a chronic relapsing disorder. Alcohol dependence is characterized by a prolonged course of alcohol-related problems and a persistent vulnerability to relapse. Even though there is an improvement in multiple domains of life after alcohol treatment, the risk of relapse remains high following treatment. that requires mental effort and is limited by a person's cognitive capacity [1]. Relapse is common following treatment and thus research into the nature and determinants of alcoholic relapse is highly relevant clinically. Cases of nonproblem drinking in patients treated for alcohol dependence are recorded in the literature, so the lack of abstinence should not be considered the only legitimate way of considering relapse, an approach consistent with DSMIII-R/DSMIV descriptions of remission. Six months is considered a good compromise for a follow-up time period for treatment outcome research.

Relapse is a multifactorial phenomenon and most likely to result from a combination of factors. like characteristics of the patient, the drug and environmental reinforcers [2]. One prominent feature noted before relapse in abstinent patients is craving or urge for alcohol. This urge may contribute to the risk of relapse. In alcohol dependents an unconscious learning process can lead to alcohol drinking in order to re-experience the positive mental state [3]. According to the cognitive processing model, alcohol use becomes a habit that requires little conscious effort or attention and craving is a non-automatic process. Alcohol dependence is a chronic disease, characterized by craving, tolerance, a preoccupation with alcohol, and continued drinking in spite of harmful consequences [4,5]. In human alcoholics, abstinence is often self-imposed, despite alcohol availability, because of the negative consequences of excessive use. During abstinence, relapse is often triggered by exposure to contexts associated with alcohol use. In addition to conditions wholly attributable to alcohol (e.g., alcoholic liver cirrhosis or alcoholic gastritis), alcohol is a contributory cause for many other diseases (e.g., various forms of cancer or cardiovascular disease, or epilepsy) and almost all forms of injuries [6]. The World Health Organization (WHO) recently reported that alcohol consumption was identified as an important risk factor for more than 60 different major disorders or injuries [7].

Predictive factors for relapse in alcoholism include treatment drop out, anxiety symptoms, depressive symptoms and high craving for alcohol [6]. One of the most challenging aspects of assessing treatment outcomes and relapse rates is the lack of consensus regarding the definition of "relapse." In general, characterizations of relapse vary between researchers, clinicians, and, more importantly, among clients. The term has typically been used to indicate the return to previous levels of symptomatic

behaviour, but definitions range from: a dichotomous outcome based on a single transgression, [8] to a continuous process defined by a series of transgressive behaviours [9].

Some have differentiated between lapse, relapse, and prolapse, to provide some indication of direction or severity of the transgression [10]. A "lapse" has been defined as an initial set-back, whereas a "relapse" could be described as a more severe return to previous behaviour, and a "prolapse" would indicate behavior that is consistent with getting back on track in the direction of positive behaviour change. The ways in which clinicians quantify and qualify relapse may have major implications on the client's attributions of their behaviour, particularly when the term "relapse" is associated with failure. Furthermore, the quantification of relapse may influence the evaluation and determination of treatment outcomes [11].

Several authors have proposed relapse precipitant categorizations that incorporate the timing of the risk factor in relation to the transgressive behaviour. Shiffman (1989) argued that distal risk factors in combination with intermediate background factors identify who will relapse, but not when the relapse will occur [12]. The when is determined by proximal precipitating factors. Distal risk factors may include: family history of alcoholism, the nature and severity of the alcoholism, co morbid psychiatric and substance abuse diagnoses, impaired cognitive capabilities, or a tendency to be reactive towards alcohol related cues [13]. Proximal risk factors may include: situational threats to self-efficacy, craving, social cue reactivity, affective states, stressful life events, the rapid deterioration of social support (e.g. loss of a friend), or acute psychological distress [13]. Thus, relapse as a central issue of alcoholism treatment warrants further study [14]. With this back ground we have conducted a study to find the various reasons for relapse in alcohol dependence patients attending the gastroenterology department of four hospitals in Jaipur.

This prospective and retrospective study of 354 patients with alcohol use disorders was done with an intent to assess various factors affecting remission and relapse and improve outcome for individuals with alcohol dependence. Demographic variables, clinical parameters and certain psychosocial factors were evaluated. Early identification of risk factors may help us in defining a more rigorous follow up protocol in these subgroups of patients.

## Materials and Methods

Patients with ethanol related liver disease were enrolled after their presentation in gastroenterology clinic and followed thereafter at 1, 3, 6, and 12 months. An informed consent was obtained. 354 patients, were selected based on inclusion criteria and accordance to ICD-10 criteria. The data was statistically analyzed employing the chi square test to find association between different variables and reasons for relapse.

Initial assessments included USG abdomen LFT RFT, UGI Endoscopy and other relevant investigations. Semi structured clinical interviews, the Symptom Checklist 90-Revised (SCL90-R), Addiction Severity Index (ASI), the Beck Depression Inventory (BDI) were recorded.

Patients were reassessed at six and twelve months to determine treatment outcome (abstinence status and duration of continuous abstinence). Data were coded, validated and analyzed using descriptive statistics. Furthermore, the quantification of relapse may influence the evaluation and determination of treatment outcomes [11].

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## Discussion

The socio demographic profile of the patient helps to understand their background and their possible influence on the relapse. Majority of the sample belonged to middle age group, this could be due to the reason that, most of them get married by this age and due to their family pressure, they come to seek treatment for alcohol relapse. Among the sample, 94.7 % were men and 5.3 % were women. This shows that alcohol relapse is more common in men compared to women. In terms of mood, positive emotional states may be a risk factor and also a consequence of relapse among men, relative to women.

The employment status of alcohol relapse patients shows that majority (88.4%) were employed, this could be due to their independent lives and free availability of money to buy drinks. Majority of the patient were married and have families. This is similar to a study done by Mattoo, et al. where 83.4% of patients undergoing treatment for substance dependence were married [15]. In family type, majority (97.9 %) belonged to nuclear

families. This could be due to more responsibilities; low bonding in family can cause a person to go back to drinking. Majority of the patients were dependent at above 35 years of age. In a study done by Hingson in which it was found that Individuals who began drinking at younger ages were more likely to experience multiple relapse [16]. In duration of dependence majority were dependent for less than 4 years, this could be due to the late age at dependence (after 35 year) in our sample. Hingson also found that among ever drinkers, 14% first became dependent within 10 years of drinking onset, 45% experienced an episode exceeding 1 year, and 33% had at least 6 of 7 potential dependence diagnostic criteria [16]. Similar findings were found in a study where 29.2 percent of alcohol dependents had a mood disorder, 27.9 percent had major depressive disorder and 36.9 percent met the criteria for an anxiety disorder among people with alcohol dependence [14]. Majority of the sample (56.3 %) had abstinence for 2-6 months, 38.9 % were abstained for 7-12 months, 2.1 % for 13-18 months, 1.1 % 19-24 months and 1.6 % had abstinence for above 2 years. It shows that duration of abstinence was less than a year for most of the sample. Most of the patients (44%) indicated craving as the reason for relapse. Similar findings with Monti et al. showing higher levels of craving assessed in role play and cue reactivity are known as a risk factor for a worse outcome in alcoholism, [17] and O'Connor et al. (1991) have reported a higher dropout rate during alcohol withdrawal among out patients with an increased craving [18]. Significant association was found between age, gender & occupation and reasons for relapse. But for patient educational level and reasons for relapse no significant association was found. This finding is similar to a study done by Glenn and Parsons (1991) which showed that Men were significantly more likely to relapse (48%) than women (29%) [19]. Four studies reported that, women were less likely to relapse to substance use following treatment [20]. Graham, 1998 suggested that differences also are seen in the effects of alcohol and drugs by gender [21]. There is significant association between marital status of the patient and the reasons for relapse and no significant association was found between the patient's family type and the reasons for relapse. Similar findings were reported by of Connors et al.'s (1996), it was found that Marital and family issues are background characteristics as well as potential stressors, in terms, suggesting that marital functioning and partner drinking are influential in treatment outcome [22].

Significant association was found between age at first drink, age at dependence, duration of dependence and reasons for relapse. Similar findings by Glenn and Parson showed that, younger the age at which people started to drink, the greater their likelihood of developing alcohol dependence within 10 years of drinking onset and before age 25 years and stronger the subsequent association with chronic relapsing dependence, characterized by multiple episodes, past-year dependence, and, among dependent persons, episodes of longer duration and a wider range of symptoms [19].

There was significant association between the reasons for relapse and comorbid diagnosis of patients under study. This could be due to the reason that patient with co-morbid anxiety and depressive disorders when exposed to social situations, self-medicate themselves by drinking alcohol as a coping strategy to stress. The self-medication hypothesis' Quitkin et al. suggest that alcohol reduce the aversive anxiety symptoms, thereby increasing persistent and escalating use via negative reinforcement [23]. A large community-based Epidemiological Catchment Area (ECA) study by Regier et al. reported that 12.2% of the population with an alcohol dependence had a comorbid anxiety disorder (OR = 1.8) [24]. Kushner et al. concluded that anxiety disorder and alcohol disorder could each initiate the other, and that the former can contribute to the maintenance of, and relapse into, pathological alcohol use [25].

Depressed mood increases the relapse risk of abstinent alcoholics. Stroung reported that depressive symptoms were the most frequently endorsed relapse determinants reported retrospectively by men treated for alcohol addiction. Driessen et al. concluded that severe trait anxiety persisting after 3 weeks of abstinence, co-morbid depressive and anxiety disorders, and combinations of these with moderate or severe current anxiety and depressive states are associated with increased risk of relapse in alcoholics [7]. Potash et al. concluded that co morbidity of alcohol dependence with affective disorders has a negative impact upon prognosis measured in terms of rates of remission, relapse and risk of suicide [26].

No significant association was found between the duration of abstinence and reasons for relapse. This is in association with other studies which showed that abstinence is associated with increased alcohol self-administration and increased. According to LaBounty et al. a self-medicating style of drinking, appearing before or after alcoholism is established, can contribute to a relapse to problem drinking after a period of abstinence among co-morbid individuals [27].

## Results

A majority of the sample 70 percent (n=315) had significant psychiatric symptoms at intake: 22 percent (N=70) presented with depressive symptoms, 17 percent (N=15) with anxiety symptoms, and 41 percent (N=192) with combined depressive and anxiety symptoms. Forty percent of patients who presented with combined depression and anxiety symptoms were abstinent at six months. These patients had worse prognosis than less symptomatic cohort at intake, including those who presented with depression symptoms alone; in the latter group, 60 percent were abstinent at six months. Key predictor variables included days in treatment, primary drug of abuse, frequency of d There is significant association between age (p value= 0.000), gender (p-value= 0.0039) & occupation

(p value=0.0086) and reasons for relapse. But no significant association was found between educational level (p-value = 0.084) and reasons for relapse drug use, and report of concurrent depression or anxiety symptoms at intake.

## Conclusions

Concurrent depression or anxiety symptoms, low education, lack of motivation for abstinence had a significant negative predictive effect on treatment outcome. Craving was noted as most common cause for relapse in alcohol dependent patients. Higher relapse rate was seen in concomitant opioid dependence ,high risk' situations , previous relapses Positive predictors were more number of coping strategies, principally adaptive ones. There is significant association between age at first drink, age at dependence, duration of dependence, other Co-morbid diagnosis of patients and relapse. Early consideration of these risk factors and more rigorous follow up can help in reducing incidence of relapses.

The following conclusion may be derived on the basis of the observations of the present study, i) craving was found to be the most common cause for relapse in alcohol dependent patients, ii) craving is more commonly seen in patients who are in the age group of 31 to 45 years, belong to male gender, married, having above intermediate level education, had their first drink between 21 to 25 years, whose age at dependence was above 30years, duration of dependence was less than 5 years and in patients who had comorbid psychiatric disorders like depression, generalized anxiety disorder, Bipolar affective disorder.

Our study signifies the need for development of focused strategies to enhance the patient compliance in those with alcohol dependence syndrome. Future studies should focus on the treatment of craving and subsequently to develop more effective clinical interventions.

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