Original Research Article

Evaluation Of Various Psychosocial And Clinical Factors Associated With Relapse In Patients With Alcohol Dependence At A Tertiary Care Hospital: An Observational Study

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Abstract

Introduction: Alcohol abuse is an alcohol use disorder characterized by continued drinking despite negative consequences and the inability to fulfil responsibilities. Alcohol dependence, also known as alcoholism, is characterized by a craving for alcohol, possible physical dependence on alcohol, an inability to control one's drinking on any given occasion, and an increasing tolerance to alcohol's effects.

Methods: It was an observational study. Sample consisted of sixty patients of alcohol dependence who following treatment for their condition had remained in a remitted state for at least four weeks, and had at least one relapse. The eligible patients fulfilled inclusion and exclusion criteria and given written informed consent were enrolled in the study.

Observations and Results: Average time from treatment to lapse was 75.0 ± 16.82 days, while time taken from treatment to relapse was 131.17 ± 33.35 days. Average mean severity of alcohol dependence questionnaire score was 9.52 ± 3.76, the total score of relapse precipitant inventory was 16.02 ± 3.59, and average value of coping behaviour inventory, total score was 1.03 ± 0.18. On the presumptive stressful life events scale the total stress score was 199.53 ± 17.48. The Self-Efficacy Scale of the patients, the average SES total scores was 61.02 ± 8.54.

Conclusions: Clinical factors like number ofprevious relapses and positive family history of substance use developed as critical determinants of previous relapse related psychosocial elements and seemed, by all accounts, to be of more prominent significance in deciding previous relapses.

Key words: Alcohol Dependence, Psychosocial Factors, Relapse.

Introduction

Alcohol in beverage form is among the most widely used psychoactive drugs in the world. Nonetheless, its complex pharmacologic actions, including panoply of psychoactive effects, have led societies throughout the world to surround alcoholic beverages with a variety of rules and regulations governing their use. Despite these efforts at control, excessive drinking, with its adverse effects is widespread.[(1)]Alcohol abuse is an alcohol use disorder characterized by continued drinking despite negative consequences and the inability to fulfil responsibilities. Alcohol dependence, also known as alcoholism, is characterized by a craving for alcohol, possible physical dependence on alcohol, an inability to control one's drinking on any given occasion, and an increasing tolerance to alcohol's effects (DSM-V).[(2)]

In India prevalence of alcohol abuse is high in lower and lower middle sections of the society and among lesser educated. General population studies conducted in different parts of India suggest prevalence rates of use of alcoholic beverages

ranging from 23% to 74% in males. Women constitute over 90% of abstainers, though among tribal groups and tea plantation workers, there are a substantial number of alcohol users in women, with prevalence rates ranging from 28% to 48%. India is likely to face the heavy burden of medical and social problems due to increased alcohol consumption.[3]

Alcohol use disorders develop against a genetic, psychosocial and environmental background. Life-time prevalence estimates for all alcohol use disorders in the general population in Europe range from 12 to 24%. The prevalence of alcohol dependence was estimated to be 5-6% in men and 1-2% in women in Europe; however, the number of alcohol dependent women has been increasing recently. The average time of progression from initial problem drinking to alcohol dependence has been reported to be in the 6 to 8 year range. Relapse appears to remain the norm rather than the exception in substance use disorders treatment. Although widely researched for an extensive period of time, little is actually known and documented about the exact causes of relapse. Even less is known about the effect of personal and demographic contributors to relapse.[4] In general, alcohol dependent patients are a very heterogeneous population with respect to genetic factors, personality disorders, co-morbidities, severity, cognitive impairment, age of onset, gender, motivation concerning readiness to change, social support for drinking or abstinence, craving and other factors.[5]

In the present study we had attempted to look at the relationship between different statistic factors and clinical parameters with different measures to survey affiliations like relapse precipitants, coping strategies, self-efficacy, stressful life events, perceived social support, and relapse among patients with alcohol dependence.

Aims & Objectives:

- To assess the association of relapse among patients with alcohol dependence syndrome with various sociodemographic andpsychosocial variables.

Material &Methods:

Study design and Set up:

The study was conducted at department of psychiatry, Indira Gandhi Medical College, Shimla-1, Himachal Pradesh which is also a tertiary care centre of the state. The study was conducted from May, 2014 to August, 2015. It covers the majority of population of the state. It was a retrospective observational study. The study protocol was approved by Indira Gandhi Medical College ethical committee, Shimla, Himachal Pradesh.

Study population and selection process: Patients presented with alcohol dependence syndrome attending out-patient department were screened for enrolment in the study. Study included sixty patients of alcohol dependence syndrome with relapse. The sample consisted of sixty patients of alcohol dependence who following treatment for their condition had remained in a remitted state for at least four weeks, and had at least one relapse. The eligible patients fulfilling inclusion and exclusion criteria after obtaining written informed consent were enrolled in the study. In the our study relapse was defined as re-emergence of alcohol dependence syndrome as per International Classification of Disease tenth revision (ICD-10)[6] (WHO-1992) diagnostic criteria after a period of abstinence of at least one month. The inclusion criterion included; Patients within the age range of 18-70 years, fulfilling the criteria for alcohol dependence as per ICD-10, remaining abstinent for at least four weeks in the past with or without treatment, having at least one relapse and showing willingness to participate in the study. The

exclusion criterion included; patients with any comorbid psychiatric and/or personality disorders, having major physical illnesses, organic brain syndrome or mental retardation and patients with multiple substance abuse/dependence except for nicotine dependence.The age of initiation of alcohol consumption was assessed using the definition described by Grant et al.[7] which defines the age of initiation, as the "age at which they first started drinking, not counting small tastes or sips of alcohol."

Baseline data collection: All eligible patients had duly signed written informed consent form before participating in the study. Assessment was done when patients were in the sober state. A detailed history from the patient and/or his/her relatives who knew the patient well was taken as per a pretexted recording format. Socio-demographic and clinical data was obtained from patients/family members/or relatives and recorded using self-structured proforma. After history, physical and general examination, subjects were assessed by using severity of alcohol dependence questionnaire (SADQ), relapse precipitant inventory (RPI), presumptive stressful life events scale (PSLES), coping behaviour inventory (CBI), social support questionnaire (SSQ), self-efficacy scale (SES), and health promoting lifestyle profile scales II (HPLP II). Routine blood investigations like haemoglobin, total leucocyte count, differential leucocyte count, erythrocyte sedimentation rate, and blood sugar etc. were carried out. Other relevant investigation like computed tomography head, thyroid function tests etc. were done whenever required.

Statistical analysis: In our study various sociodemographic and drug related variables were compared using appropriate statistical tools. The continuous and categorical variables were reported as mean ± standard deviation and percentages, respectively. 2 tailed value of <0.05 was taken as statistically significant. Data was analysed using statistical software Epi Info version 3.4.7.

Observations and Results:

Baseline clinical characteristics of the study groups: Table-1 describes the distribution of socio-demographic characteristics of the study population;

- **Clinical characteristics of the patients:**
  - **Age at initiation of alcohol intake:** 72% of our patients initiated alcohol drinking between 15-25 years. The mean age of starting alcohol consumption was 22.90 ± 6.65 years.
  - **Duration of alcohol Intake:** Mean duration of alcohol use in our study was 9.92 ± 2.54 years and 53% were consuming alcohol for 6-10 years.
  - **Family history of alcohol use:** Family history of alcohol use was evaluated in parents and grandparents only. Family history of alcohol use disorder was found in 58.3% of patients.
  - **Family history of alcohol dependence:** In the present study, around 55% patients had a family history of alcohol dependence.
  - **Time to develop dependence and duration of alcohol dependence:** In our study, average time to develop alcohol dependence was 5.0 ± 1.33 years and the average duration of alcohol dependence was 5.27 ± 1.21 years.
  - **No. of previous relapses:** In the present study, 56.7% patients had one relapse and 43.3% patients had two relapses in the past. The

average of relapses was 1.45 ± 0.50.

- **Relapse profile of patients with alcohol dependence:**
    - In the present study, average time from treatment to lapse was 75.0 ± 16.82 days, while time taken from treatment to relapse was 131.17 ± 33.35 days. Average time taken by the patients to develop relapse was 79.33 ± 17.06 days, while average time taken by the patients to seek help after relapse was 399.3 ± 119.06 days.
    - **Severity of Alcohol Dependence Questionnaire scores (SADQ).**Average mean SADQ score was 9.52 ± 3.76.
- **Relapse Precipitant Inventory scores (RPI):** In our study, the scores of relapse precipitant inventory, the mean value of negative mood states were 7.85 ± 1.77, External situations/Euphoric States were 3.85 ± 1.07, Lessened cognitive vigilance were 2.48 ± 2.75 and RPI total score was 16.02 ± 3.59.
- **Scores on the Coping Behaviour Inventory (CBI):** In the present study, on the coping behaviour inventory, mean value of patient's positive thinking was 0.85 ± 0.16, Negative thinking was 0.98 ± 0.06, Avoidance was 1.57 ± 0.50, and the mean value of patients seeking social support was 1.52 ± 0.50. The average value of the CBI total score was 1.03 ± 0.18.
- **Scores on the Self-Efficacy Scale (SES):** In our study, on the Self-Efficacy Scale of the patients, General self-efficacy score was 39.92 ± 8.31, Social self-efficacy score was 12.35 ± 2.11 and the average SES total scores was 61.02 ± 8.54.
- **Scores on the Presumptive Stressful Life Events Scale (PSLES):** On the presumptive stressful life events scale, average score of desirable events was 0.88 ± 0.11, undesirable events was 0.80 ± 0.10, total events was 4.90 ± 1.05, and the total stress score was 199.53 ± 17.48. The Lifetime stress score of the patients was 381.50 ± 39.31.
- **Scores on the Social Support Questionnaire (SSQ):** Total SSQ scores in our study were 43.13 ± 9.06.
- **Scores on the Health promoting lifestyle profile II (HPLP II):** Total HPLP II scores in our study were 26.88 ± 4.06.

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Table 1: Sociodemographic variables of the patients.

Variables	**No. of patients (percentage)**
Age (years) (Mean ± SD)	44.36 ± 8.67
Sex	100% (male)
Rural/Urban:	
Rural	44 (73.3%)
Urban	16 (26.7%)
Marital status:	
Single	10 (16.7%)
Married	49 (81.7%)
Divorced	1 (1.7%)
Type of family:	
Nuclear	45 (75.0%)
Joint	15 (25.0%)
Education:	
Illiterate	1 (1.7%)
Matriculate	16 (26.7%)
Graduate	43 (71.7%)
Occupation:	
Unemployed	3 (5.0%)
Govt. employee	12 (20.0%)
Self-employed/Businessman	35 (58.3%)
Farmer	10 (16.7%)
Socioeconomic status: (Modified Kuppuswamy's scale)	
Upper	0
Upper middle	11 (18.3%)
Lower middle	31 (51.7%)
Upper lower	12 (20.0%)
Lower	06 10.0%)

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Table 2: Clinical variables of the patients.

Alcohol related variables:	**No. of patients (%)**
Age of initiation of alcohol intake (years) (mean ± SD)	22.90 ± 6.65
Duration of alcohol Intake (years) (mean ± SD)	9.92 ± 2.54
Family history of Alcohol use:	
Present	35 (58.3%)
Absent	25 (41.7%)
Family history of Alcohol dependence:	
Present	33 (55.0%)
Absent	27 (45.0%)
Time to develop dependence (years)	5.0 ± 1.33
Duration of alcohol dependence (years)	5.27 ± 1.21
No. of previous relapses:	
1	34 (56.7%)
2	28 43.3%)

Table 3:Relapse profile of the patients.

Relapse variables	**(Mean ± SD)**
Time from treatment to lapse (days)	75.0 ± 16.82
Time from treatment to relapse (days)	131.17 ± 33.35
Duration of relapse (days)	79.33 ± 17.06
Time taken to seek help after relapse (days)	399.3 ± 119.06
SADQ scores	9.52 3.76

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Table 4: Scores on the Relapse Precipitant Inventory (RPI), Coping Behaviour Inventory (CBI), Presumptive Stressful Life Events Scale (PSLES), Self-Efficacy Scale (SES), Social Support Questionnaire (SSQ) and the Scores on the Health promoting lifestyle profile II (HPLPII).

	(Mean ± SD)
Relapse precipitant inventory:	
Negative mood states	7.85 ± 1.77
External situations/Euphoric States	3.85 ± 1.07
Lessened cognitive Vigilance	2.48 ± 2.75
RPI total score	16.02 ± 3.59
Coping behaviour inventory:	
Positive thinking	0.85 ± 0.16
Negative thinking	0.98 ± 0.06
Avoidance	1.57 ± 0.50
Seeking social Support	1.52 ± 0.50
CBI total score	1.03 ± 0.18
Presumptive Stressful Life Events Scale (stressful life events for the past year):	
Desirable events	0.88 ± 0.11
Undesirable events	0.80 ± 0.10
Total events	4.90 ± 1.05
Total stress score	199.53 ± 17.48
Lifetime stress score	381.50 ± 39.31
Self-Efficacy Scale:	
General self-efficacy	39.92 ± 8.31
Social self-efficacy	12.35 ± 2.11
SES total scores	61.02 ± 8.54
Total SSQ scores	43.13 ± 9.06
HPLP II score	26.88 ± 4.06

Discussion:

In our study, mean age of the patients was 44.36 ± 8.67 and 69% of the patients were over 40 years of age. There was no female patient, this likely mirrors female drinking is less predominant in this area and has all the earmarks of being socially unsatisfactory practice. It is additionally conceivable that because of shame appended to female liquor utilization (because of a social element) less number of female patients must bevisiting general hospital setting for treatment.[8-10] Our study demonstrated that specific clinical and

psychosocial factors were dependably and reliably connected with previous relapses among patients with alcohol dependence. Accordingly, it adds to the past research around there which has exhibited that comparative clinical/social factors are vital associates of previous relapses. Besides, clinical parameters, for example, the quantity of past previous relapses s and positive family history of substance abuse developed as determinants of previous relapses among patients with alcohol dependence, while a shorter time to dependence was related with previous relapses among patients of alcohol dependence. These perceptions are in accordance with past recommendations that seriousness/result of substance dependence could be one of the critical relates of relapse.[11-14] Similarly, psychosocial variables, for example, previous relapse precipitants (or high risk situations), adapting, self-viability and distressing life occasions gave off an impression of being of more noteworthy significance in deciding previous relapses . Patients who had previous relapse will probably have been presented to a higher aggregate number of high risk situations.

These outcomes are not just steady with proposition in regards to the significant part of presentation to high risk situations in the onset of previous relapses, additionally bolstered by the consequences of various prior studies.[15-17] Patients with alcohol dependence who stayed abstinent tended to abuse more number of adapting procedures including versatile methodologies, for example, ‘positive thinking', while the individuals who had previous relapseabused maladaptive systems, for example, 'negative thinking' all the more regularly. It has likewise been accounted for already that the number and viability of adapting procedures among patients are critical in deciding relapse.[12,18-19]

Therefore, patients who had previous relapse in this study had encountered a higher number of undesirable life occasions, which is in accordance with a portion of the prior study which have reported such an association.[12,20-22] likewise, the present study develops the outcomes in regards to relates of previous relapses further by exhibiting the operation of to a great extent comparative systems of previous relapses among patients with alcohol dependence. This is important on the grounds that there is lack of writing on research on previous relapses among patients with alcohol dependence in our area which is tended to just sporadically. Eventually, the models of previous relapses alluded to before have been created in the West and a significant part of the examination confirm additionally began from the Western countries.[12,20-21]

Along these lines, the present results are helpful in expounding the general way of previous relapses in substance dependence and its proposed components. On the off chance that the factors recognized in the present and prior study are for sure essential associates of previous relapses in substance dependence, these could be of significant help in foreseeing previous relapses, as well as in distinguishing key ranges to be focused keeping in mind the end goal to keep this normal and upsetting events because of alcohol dependence disorder.

Conclusion:

In ourstudy we may conclude that there is significant association of previous relapses among patients with alcohol dependence disorder with clinical and psychosocial factors. Clinical parameters, for example, the number ofprevious relapses and positive family history of substance use emerged as noteworthy determinants of relapse. Different psychosocial elements like, relapse precipitants (or high risk situations), coping behaviour, stressful life events and self-efficacy,by

all accounts, to be of more prominent significance in deciding previous relapse.

Limitations:

History of alcohol use was based as reported by patient/family member so factor of recall bias cannot be ruled out. The study was an observational one. A prospective study design should be planned to see the association between demographic and psychosocial variables with relapse. Due to a small sample size, the findings of this study need to be corroborated in larger sample studies.

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