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Research Article

Assessment of psychosocial factors associated with relapse in patients with alcohol dependence: a retrospective observational study

Purshottam K. Kaundal[1], Indrajeet Sharma[2]*, Tulika Jha[1]

[1]Department of Pharmacology, Indira Gandhi Medical College, Shimla-1, Himachal Pradesh, India
[2]Department of Pharmacology, AIMS, Rajsamand, Rajasthan, India

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*Correspondence to:
Dr. Indrajeet Sharma,
Email: indi040787@gmail.com

ABSTRACT

Background: 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 are widespread.
Methods: It was a one year retrospective observational study. The sample consisted of fifty 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 and giving written informed consent were enrolled into the study.
Results: Average time from treatment to lapse was 76.40±17.35 days, while time taken from treatment to relapse was 138.40±31.38 days. Average mean severity of alcohol dependence questionnaire score was 9.49±3.89, the total score of relapse precipitant inventory was 15.94±3.86, and the average value of coping behaviour inventory total score was 1.04±0.19. On the presumptive stressful life events scale the total stress score was 200.84±17.78. The self-efficacy scale (SES) of the patients, the average SES total scores was 60.10±8.77.
Conclusions: Clinical parameters like number of previous relapses and positive family history of substance use emerged as significant determinants of relapse related psychosocial factors and appeared to be of greater importance in determining relapse.

Keywords: Alcohol, Psychosocial factors, Psychoactive effects, Relapse

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 (DSM-V).[1]

Alcohol dependence is in general accepted as a psychiatric disorder with harmful physical, mental and social consequences and a high probability of a chronic relapsing course. It is considered a major public health problem in most societies. The view of addiction as a chronic relapsing disorder makes the prevention of relapse as one of the critical treatment elements for both the clinician and the consumer.[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%.[4] 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. 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 the present study we had examined the association between demographic variables, clinical parameters, relapse precipitants, coping strategies, self-efficacy, stressful life events, perceived social support and relapse among patients with alcohol dependence.

METHODS

Study design and set up

The study was conducted at Indira Gandhi Medical College, Shimla, India which is a tertiary care centre of Himachal Pradesh from July 2014 to June 2015, located in North India and caters to the majority of population of the state. It was a retrospective observational study.

Study population and selection process

Patients with alcohol dependence syndrome attending out-patient department (OPD) and in-patient department (IPD) services were screened for enrolment in the study. Study included fifty patients of alcohol dependence syndrome with relapse. The sample consisted of fifty 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 present study relapse was defined as re-emergence of alcohol dependence syndrome as per international classification of disease tenth revision (ICD-10) (WHO-1992) diagnostic criteria after a period of abstinence of at least one month.[5] An inclusion criterion included; patients within the age range of 18-65 years, fulfilling the criteria for alcohol dependence as per ICD-10, remaining abstinent for at least 4 weeks in the past with or without treatment, having at least one relapse and showing willingness to participate in the study. An exclusion criterion included; patients with any comorbid psychiatric and/or personality disorder(s), patients having major physical illnesses, organic brain syndrome or mental retardation and patients with multiple substance abuse/dependence except for nicotine dependence.

Baseline data collection

All eligible patients had signed written informed consent form before participating in the study. Assessments were done when patients were in sober state.

A detailed history from the patient and/or a reliable person who knew the patient well was taken as per a pre-designed recording format. Socio-demographic and clinical data was obtained from patients, family members, or relatives and recorded using self-devised semi-structured proforma. After history and examination, subjects were assessed by using severity of alcohol dependence questionnaire (SADQ), relapse precipitant inventory (RPI), coping behaviour inventory (CBI), self-efficacy scale (SES), presumptive stressful life events scale (PSLES), social support questionnaire (SSQ), health promoting lifestyle profile scales II (HPLP II). Routine blood investigations like Hb, TLC, DLC, ESR, and blood sugar were carried out. Other relevant investigation like CT Head, thyroid function test etc. were done if needed.

Statistical analysis

In the study various sociodemographic and drug related variables were compared using appropriate statistical methods. The categorical and continuous variables were reported as percentages and mean±standard deviation, respectively. 2 tailed value of <0.05 was taken as statistically significant. Data was analysed using statistical software Epi Info version 3.4.3.

RESULTS

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

Clinical profile of the patients

Age at initiation of alcohol intake

The age of initiation of alcohol consumption was assessed using the definition described by Grant et al.[6] which defines the age of initiation, as the "age at which they first started drinking, not counting small tastes or sips of alcohol." 70% of our patients initiated alcohol drinking between 14-25 years. The mean age of starting alcohol consumption was 22.96±7.08 years.

Duration of alcohol intake

Mean duration of alcohol use in our study was 10.32±2.48 years and 52% were consuming alcohol for 7-10 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 56% of patients.

Family history of alcohol dependence

In the present study, around 52% 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 4.98±1.42 years and the average duration of alcohol dependence was 5.26±1.15 years.

No. of previous relapses

In the present study, 56% patients had one relapse and 44% patients had two relapses in the past. The average of relapses was 1.44±0.50.

Relapse profile of patients with alcohol dependence

In our study, average time from treatment to lapse was 76.40±17.35 days, while time taken from treatment to relapse was 138.40±31.38 days. Average time taken by the patients to develop relapse was 82.40±16.35 days, while average time taken by the patients to seek help after relapse was 420±119.31 days. Severity of alcohol dependence questionnaire scores (SADQ). Average mean SADQ score was 9.49±3.89.

Relapse precipitant inventory scores (RPI)

In our study, the scores of relapse precipitant inventory, the mean value of negative mood states were 7.92±1.90, External situations/euphoric states were 4.04±1.02, lessened cognitive vigilance were 2.10±0.54 and RPI total score was 15.94±3.86.

Scores on the coping behaviour inventory (CBI)

In the present study, on the coping behaviour inventory, mean value of patient's positive thinking was 0.84±0.17, negative thinking was 0.98±0.04, avoidance was 1.60±0.49, and the mean value of patients seeking social support was 1.54±0.50. The average value of the CBI total score was 1.04±0.19.

Scores on the self-efficacy scale (SES)

In our study, on the self-efficacy scale of the patients, general self-efficacy score was 39.20±8.47, social self-efficacy score was 12.00±2.01 and the average SES total scores was 60.10±8.77.

Scores on the presumptive stressful life events scale (PSLES):

On the presumptive stressful life events scale, average score of desirable events was 0.87±0.10, undesirable events was 0.80±0.09, total events was 5.00±1.06, and the total stress score was 200.84±17.78. The lifetime stress score of the patients was 390.20±35.25.

Table 1: Socio-demographic characteristics of the patients.

Variables	No. of patients (percentage)
Age (years) (Mean ± SD)	43.66 ± 6.23
Sex	100% (male)
Rural/Urban	
Rural	38 (76.0%)
Urban	12 (24.0%)
Marital status	
Single	7 (14.0%)
Married	42 (84.0%)
Divorced	1 (2.0%)
Type of family	
Nuclear	37 (74.0%)
Joint	13 (26.0%)
Education	
Illiterate	1 (2.0%)
Matriculate	18 (36.0%)
Graduate	31 (62.0%)
Occupation	
Unemployed	3 (6.0%)
Govt. employee	10 (20.0%)
Self-employed/ Businessman	30 (60.0%)
Farmer	7 (14.0%)
Socioeconomic status modified Kuppuswamy's scale	
Upper	0
Upper middle	11 (18.3%)
Lower middle	20 (33.3%)
Upper lower	17 (28.3%)
Lower	12 (20.0%)

Table 2:Clinical profile of the patients.

Alcohol related variables	No. of patients (percentage)
Age of initiation of alcohol intake (years) (Mean±SD)	22.96±7.08
Duration of alcohol intake (years) (Mean±SD)	10.32±2.48
Family history of Alcohol use	
Present	28 (56.0%)
Absent	22 (44.0%)
Family history of Alcohol dependence	
Present	26 (52.0%)
Absent	24 (48.0%)
Time to develop dependence (years)	4.98±1.42
Duration of alcohol dependence (years)	5.26±1.15
No. of previous relapses	
1	28 (56.0%)
2	22 (44.0%)

Scores on the social support questionnaire (SSQ)

Total SSQ scores in our study were 44.34±9.44.

Scores on the health promoting lifestyle profile II (HPLP II)

Total HPLP II scores in our study were 26.56±4.23.

Table 3: Relapse profile of patients.

Relapse variables (days)	(Mean ± SD)
Time from treatment to lapse	76.40±17.35
Time from treatment to relapse	138.40±31.38
Duration of relapse	82.40± 6.35
Time taken to seek help after relapse	420.00±119.31
SADQ scores	9.49±3.89

Table 4: Scores on the relapse precipitant inventory (RPI), coping behaviour inventory (CBI), self-efficacy scale (SES), presumptive stressful life events scale (PSLES), social support questionnaire (SSQ) and the scores on the health promoting lifestyle profile II (HPLPII).

	(Mean ± SD)
Relapse precipitant inventory:	
Negative mood states	7.92±1.90
External situations/ euphoric states	4.04±1.02
Lessened cognitive vigilance	2.10±0.54
RPI total score	15.94±3.86
Coping behaviour inventory:	
Positive thinking	0.84±0.17
Negative thinking	0.98±0.04
Avoidance	1.60±0.49
Seeking social support	1.54±0.50
CBI total score	1.04±0.19
Self-Efficacy Scale:	
General self-efficacy	39.20±8.47
Social self-efficacy	12.00±2.01
SES total scores	60.10±8.77
Presumptive stressful life events scale (stressful life events for the past year):	
Desirable events	0.87±0.10
Undesirable events	0.80±0.09
Total events	5.00±1.06
Total stress score	200.84±17.78
Lifetime stress score	390.20±35.25
Total SSQ scores	44.34±9.44
HPLP II score	26.56±4.23

DISCUSSION

In the present study, mean age of the patients was 43.66±6.23 and 68% of the patients were more than 40 years old. There was no female patient, this probably reflects that female drinking is less prevalent in this region and appears to be culturally unacceptable practice. It is also possible that due to stigma attached to female alcohol consumption (a cultural factor) less number of female patients must be visiting general hospital setting for treatment.[7-10] The present study showed that certain clinical and psychosocial variables were reliably and consistently associated with relapse among patients with alcohol dependence. Thus, it adds to the previous research in this area which has demonstrated that similar clinical/social variables are important correlates of relapse. Consequently, clinical parameters such as the number of previous relapses and positive family history of substance use emerged as determinants of relapse among patients with alcohol dependence, while a shorter time to dependence was associated with relapse among patients of alcohol dependence. These observations are in line with previous suggestions that severity/outcome of substance dependence could be one of the important correlates of relapse.[11,13-15] At the same time, psychosocial factors such as relapse precipitants (or high risk situations), coping, self-efficacy and stressful life events appeared to be of greater importance in determining relapse. Patients who had relapsed were more likely to have been exposed to a higher total number of high risk situations. These results are not only consistent with proposals regarding the pivotal role of exposure to high risk situations in the onset of relapse, but also in accordance with the results of a number of earlier studies.[11,15-19] Patients with alcohol dependence who remained abstinent tended to use more number of coping strategies including adaptive strategies such as 'positive thinking', while those who had relapsed used maladaptive strategies such as 'negative thinking' more often. It has been reported previously that the number and effectiveness of coping strategies among patients are important in determining relapse.[11,13,15,20]

Furthermore, patients who had relapsed in this study had experienced a higher number of undesirable life events, which is in line with some of the earlier studies which have documented such an association.[11,21-23] In addition, the current study extends the results regarding correlates of relapse further by demonstrating the operation of largely similar mechanisms of relapse among patients with alcohol dependence. This is noteworthy because there is paucity of literature on research on relapse among patients with alcohol problems in our region which is addressed only occasionally. Finally, the models of relapse referred to earlier have been developed in the west and much of the research evidence also originated from the Western countries.[11,17,23-25]

Thus, the present findings are useful in illustrating the universal nature of relapse in substance dependence and its proposed mechanisms. If the variables identified in the current and earlier studies are indeed important correlates of relapse in substance dependence, these could be of considerable help not only in predicting relapse, but also

in identifying key areas to be targeted in order to prevent this common and distressing occurrence.

In the present study we may conclude that there is significant association of relapse among patients with alcohol dependence syndrome with demographic and psychosocial variables. Clinical parameters such as the number of previous relapses and positive family history of substance use emerged as significant determinants of relapse psychosocial factors such as relapse precipitants (or high risk situations), coping behaviour , self-efficacy and stressful life events appeared to be of greater importance in determining relapse.

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

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