



A STUDY ON IMPACT OF LOCUS OF CONTROL AND COPING TO STRESSORS IN PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME

Psychiatry

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ABSTRACT

Background: Alcohol use is widely prevalent in India. Alcohol use IS one of the leading causes of mortality and morbidity globally. Alcohol dependence is a chronic and progressive disorder characterized by a loss of control over the use of alcohol with subsequent social, legal, psychological and physical consequences. Alcohol consumption has risen dramatically during the last four decades and was accompanied by changes in locus of control. Addiction behavior is guided not only by reinforcement along with plans, goals, and expectations of success. Individuals with a history of success are likely to have a generalized expectancy that they can control their lives and will be having internal locus of Individuals with external locus of control experience outcomes as being the result of external or impersonal forces such as luck. **Aim:** To study on impact of locus of control in alcohol relapse and remission patient and to assess alcohol relapse factors **Methodology:** The present study is a Cross sectional study using convenient sampling method and the study sample consisting of 72 patients with a diagnosis of alcohol dependence syndrome and were diagnosed as per ICD-10 All the persons included in the study were attending to Government hospital for mental care, Visakhapatnam as both outpatients and inpatients. Semi structured Performa for sociodemographic data, Drug Related Internal External Locus of control scale and Coping Behavior Inventory (CBI) were the tools used in our study **Results:** The mean age of the total sample is 36.34 years (SD: 9.34). 57% of the sample has family history of alcohol dependence. The mean age of initiation of alcohol in relapsed group is 20.78 years and in abstinent group is 20.74years. The mean duration of intake of alcohol in relapsed group is 13.92 years and abstinent group is 18.28 years. The mean external locus score in relapsed group is 15.23 and in abstinent group is 8.45. The mean internal locus of score at relapsed individuals is 7.84 and in abstinent group is 15.00. ON aplying independent t -test there is a significant difference between the 2 groups **Conclusion:** Subjects with family history of alcohol dependence are more prone to initiate alcohol at earlier age. High scores of external loci of control observed in relapse patients compared to abstinent persons. High internal factors led for their abstinence in abstinent patients. The most prominent factor that led for their abstinence in abstinent group is that taking alcohol how it affected their family.

KEYWORDS

alcohol, relapse, abstinent, locus of control, coping factors

INTRODUCTION

Alcohol use is widely prevalent in India. Alcohol use is leading causes of mortality and morbidity globally, and the same is valid for our country India.

Alcohol dependence is a chronic and progressive disorder featured by a loss of control over the use of alcohol with subsequent social, legal, psychological & physical consequences. Alcohol consumption has risen dramatically during the last four decades and was accompanied by an increase in the social, psychological and physical problems.⁽¹⁾ 3.2% of worldwide deaths were caused by alcohol every year also resulted in 4% loss of total DALYs.⁽²⁾

Extent and prevalence of alcohol problem in India For a definite diagnosis of dependence 3 or more of the following present together at sometime during the previous year.

- A strong desire to take the substance
- Difficulty in controlling substance-taking behavior regarding onset, termination or levels of use.
- A physiological withdrawal state when substance use has ceased or been reduced.
- Tolerance, increased doses of the psychoactive substance are required to achieve effects originally produced by lower doses.
- Progressive neglect of alternative pleasures because of psychoactive substance use.
- persisting substance use despite clear evidence of overtly harmful consequences.⁽⁶⁾

Alcohol use widespread in India in rural and urban areas with prevalence rates generally varying from 23% to 74% in males and it is not that common in females but in certain sections and communities, alcohol use is found to be prevalent at the rate of 24% to 48 % in females. In 2005 surveys in India showed 62.5 million people using alcohol. Of them 17.4% (10.6 million) had an alcohol use disorder and among hospital admissions, 20-30% are due to alcohol-related problems.⁽³⁾

According to the World Health Organization One fourth to One-third

of the male population drinks alcohol in India and neighboring South Asian countries, and amongst women, the use is increasing.⁽⁴⁾ Alcohol dependence is characterized by craving, compulsion and the primacy of drinking over other activities and a state of neuronal adaptation leading to physical and mental disturbances on withdrawal.⁽⁵⁾

Alcohol Use Disorder is continuous use of alcohol despite repeated attempts to cut down the use. Alcohol use disorder includes tolerance to alcohol which means taking a higher amount progressively to have a similar effect and a characteristic cluster of behavioral and mental symptoms appearing when one does not take alcohol, i.e., withdrawal.⁽⁶⁾ Alcohol use disorder results in damage to both physical and mental health, affects the individuals functioning at work and results in relational conflicts and social and legal problems.

LOCUS OF CONTROL

Rotter's theory proposes that human behavior is guided not only by the actual history of reinforcement, but also by plans, goals, and expectations of success.

Individuals with a history of success are likely to have a generalized expectancy that they can control their lives; they are described as having an internal locus of control.

- At the opposite extremes are those whose prior efforts have been generally unsuccessful; they come to believe that rewards and punishments are a matter of luck or the arbitrary decisions of powerful others. Such individuals are said to have an external locus of control.
- Thus he defines internal versus external control as "the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that reinforcement is a function of chance, luck or fate, is under the control of powerful others, or is simply unpredictable".

- Thus, for some individuals, outcomes are experienced as being

dependent on the effort expended in their pursuit (internal control). Others experience outcomes as being the result of external or impersonal forces such as luck, prayer, fate, or powerful others (external control).⁽⁷⁾

- Other research also concluded that when the degree of problematic drinking was severe, the patient's locus of control apparently tended to be external, and alcohol-dependent patients in the remission stage tended toward internal locus of control. Findings indicated that, during a relapse, the alcohol-dependent patient would go back to an external locus of control.

Therefore, drinking related locus of control is commonly used by researchers as an indicator to forecast the outcome of alcoholism treatment.

REVIEW OF LITERATURE

- Abbott observed a shift toward internality in patients who successfully responded to alcoholism treatment.⁽⁸⁾
- Caster and parson examined that locus of control in alcohol dependent patients and treatment outcome, they found that these patients were high on external locus of control, they also respond poorly in the treatment and outcome is failure.⁽⁹⁾
- Donovan and O'Leary found alcoholics more external in their perception of control than matched social drinkers, and among alcoholics external DRIE scores were associated with more sustained, compulsive drinking.⁽¹⁰⁾
- Koski-Jannes revealed externals to be more likely to relapse sooner and more severely in the first year following treatment, compared to internals.⁽¹¹⁾
- As there is inconsistent results which factor act for abstinence and the locus of control between the groups, this study aims at finding which locus of control factors influence more among the two groups for their behavior

AIMS AND OBJECTIVES

- To study on impact of locus of control in alcohol relapse and abstinence group.
- To assess coping behavior patterns in abstinence groups.

HYPOTHESIS

Locus of control is more internally related in successfully treated individuals.

METHODOLOGY

- **Study population:** In-patients and out-patients attending Government Hospital for Mental Care, Visakhapatnam diagnosed as alcohol dependence syndrome for a duration 6 months.

- **Study Design:** cross-sectional study
- **Sampling:** convenient sampling

A total of 72 alcoholic patients will be selected on the basis of selective sampling with a diagnosis of alcohol dependence

Inclusion criteria

1. Patients who are between 18 and 70 years of age
2. Patients who fulfill ICD-10 criteria for research for alcohol dependence who had relapsed and who are currently abstinent.
3. Patients who have given valid informed written consent to the study.

Exclusion criteria

1. Patients with co-morbid psychiatric disorders, major physical illnesses, organic brain syndrome.
2. Patients with multiple substance abuses except for nicotine use.
3. Patients who had not consented.
4. Patients who are diagnosed with intellectual disability.

Study tools:

1. Consent form
2. A General Information Sheet to collect the socio-demographic features and basic clinical details
3. The Drinking-Related Locus of Control (DRIE) Scale.
4. Coping behavior inventory scale (CBI) was used

Informed consent form:

A self-designed informed consent form, which explained the nature of the study, the contents of which were explained in vernacular language, was read out to the subjects and for those who were willing to participate in the study, signature was obtained.

General information sheet:

A self-designed form to collect personal and socio-demographic details of the subjects has been used. This contains details about identification data like name, age, place of origin, marital status, religion, education, occupation, and income. Details about clinical variables like age of initiation alcohol intake, duration of intake of alcohol, family history of alcoholism, time to develop alcohol dependence, duration of dependence are noted.

Procedure

1. This is a cross sectional study using convenient sampling method.
2. Study sample consists of 72 patients with a diagnosis of alcohol dependence syndrome according to the ICD-10 for research and were attending to Government hospital for mental care, Visakhapatnam as both outpatients and inpatients.
3. The study was conducted after taking permission from the institutional ethics committee and valid written and informed consent from the study participants.
4. The study sample was divided into 2 groups- relapse group and abstinence group.
5. Study population of both the groups were assessed using following scales-
 - a. drug related internal-external locus of control scale (DRIE)
 - b. coping behavior inventory scale
6. Comparison of scores was done between the two groups and the data was analyzed using unpaired t-test.

Statistical Analysis

1. For all statistical analyses, a statistical package for social sciences, version 21 (SPSS) will be used.
2. MS Excel 2021 will be used for data entry. Values will be presented as means $\pm$ standard deviation, percentages, data also graphically represented and tabulated
3. Unpaired t-test analysis will be used for the analysis of categorical data.
4. For all statistical analyses, $P < 0.05$ will be considered significant.

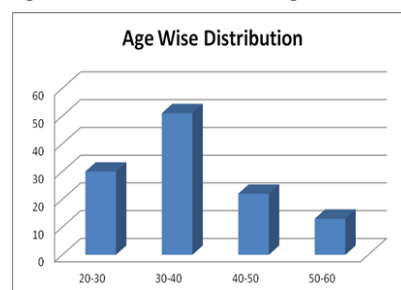
OBSERVATIONS AND RESULTS

A total of 72 subjects diagnosed as alcohol dependence with relapse after 1 month of abstinence and abstinence for 3 months were included in the study.

Age wise distribution of the sample:

The mean age of the total sample is 36.34 years (SD: 9.34). 26% (n=19) were in the age group of 20-30 years, 44% (n=32) in the age group of 30-40 years, 19% (n=13) in the age group of 40-50 years and 11% (n=8) in the age group of 50-60 years.

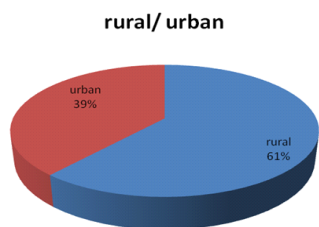
Figure 1 - Age wise distribution of the sample



Distribution of domicile:

Majority of the subjects belonged to rural area 61% (n=44), and the remaining to urban area 39% (n=28).

Figure 2 - Geographical distribution of the sample



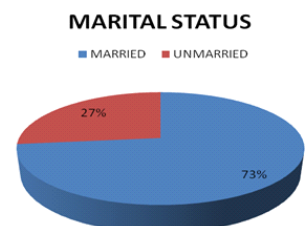
Religion wise distribution of the sample:

Majority of the sample were Hindu by religion 60% (n=43), 31% (n=22) belonged to Christianity and 9% (n=7) were Muslims

Marital status:

63% (n=46) of the sample comes from nuclear family, remaining 37% (n=26) of the sample comes from joint family.

Figure 3 - Distribution of the sample according to the marital status.



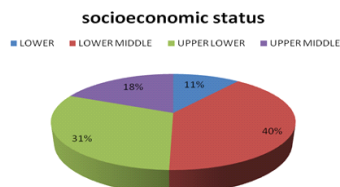
Employment status:

26% (n=19) of the samples were unemployed whereas the remaining 74% (n=53) were employed across various professions.

Socio – economic status:

18% (n=13) of the sample belonged to upper middle class, 31% (n=22) of the sample belonged to upper lower class, 40% (n=29) of the sample belonged to lower middle class, 11% (n=8) of the sample belonged to lower class.

Figure 4 - Distribution of sample according to socio economic status



Clinical Variables:

The mean age of initiation of alcohol is 21.78 years with SD of ± 3.32 , and about 55% (n=40) were in between 14 -20 years, 25% (n=18) were in between 21-25, 6% (n=4) were in between 26-30 and about 4% (n=3) were in between 30-35. So Majority of individuals initiated drinking alcohol between 14-20 years of age.

Family history of alcohol:

Out of the total sample n=72, 57% (n=41) of the sample has family history of alcohol dependence. Remaining 43% (n=31) has no family history of alcohol dependence.

The time to develop dependence of 53% (n=62) of the sample is <10 years, 43% (n=51) of the sample is 10-20 years, 2% (n=2) of the sample is 20-30 years, 2% (n=2) of the sample is 30-40 years. So majority developed dependence within the age of 10 years with slight variation who developed between 10-20 years.

The mean age of initiation of alcohol in relapsed group is 20.78 years and in abstinent group is 20.74 years. The mean duration of intake of alcohol in relapsed group is 13.92 years and abstinent group is 18.28 years. The mean time to develop dependence in relapsed patients is 11.14 years and abstinent group is 14.14 years.

Comparison of clinical variables among relapsed group and abstinent group.

	Relapsed group (39)	Abstinent group(33)	Mean difference
Age of initiation of alcohol	20.78	20.74	0.04
Duration of intake of alcohol	13.92	18.28	-4.36
Time to develop dependence	11.14	14.14	-3.00

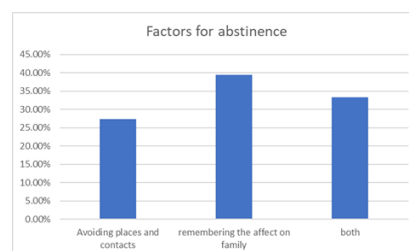
Comparison of means of locus of control external vs internal between abstinent and dependent group

	Group	N	Mean	Std. Deviation	Std. Error Mean
LOC EXT	D	39	15.23	2.241	.359
LOC EXT	A	33	8.45	2.451	.427
LOC INT	D	39	7.87	2.949	.472
LOC INT	A	33	15.00	2.151	.374

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference			
							Lower		Upper	
loc_external	Equal variances assumed	.009	.926	12.246	70	.000	6.776	.553	5.673	7.880
	Equal variances not assumed			12.154		.000	6.776	.558	5.663	7.889
loc_internal	Equal variances assumed	2.851	.096	-11.529	70	.000	-7.128	.618	-8.361	-5.895
	Equal variances not assumed			-11.830		.000	-7.128	.603	-8.330	-5.926

On applying independence t test between the groups of dependant and abstinence; there is significant difference found less than P Value of 0.05 in the locus of control.



It was found that remembering the affect of alcohol on family members is the most prominent factor for abstinence in the abstinent group.

Discussion:

- Study is done only on male population
- The study was conducted in the subjects of alcohol dependence
- Donovan and O'Leary found alcoholics have more external in their perception of control than matched social drinkers, and among alcoholics external DRIE scores were associated with more sustained, compulsive drinking. Similar findings were reflected in our study.
- In this study more external scores in DRIE were found to be more in relapsed individuals
- In our study sample, majority of relapses are seen in subjects

between 30 to 40 years as they were employed which led to more spending in procuring alcohol.

- Our study setting is a government hospital where most of the patients attending belong to Lower Socio-Economic Status and from rural back-ground, the same had been reflected in our study
- Subjects with family history of alcohol dependence are more prone to initiate alcohol at earlier age and they have more chances of relapse after treatment.
- In the abstinent group, internal factors for control are more preventing relapse.

Conclusion:

- External cues should be minimized in relapsed individual to control their intake behavior
- Avoiding contact with people who drink alcohol, avoiding the places which trigger the alcohol intake behavior and remembering how it affected family act as good coping strategies for abstinence.
- Further follow-up prospective studies needed to compare and analyze the patients factors before and after treatment to find the cause for relapse in treated individuals and factors related to abstinence.

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