A STUDY OF FACTORS CONTRIBUTING RELAPSE IN ALCOHOL DEPENDENCE AND INTRA GROUP COMPARISON FOR FACTORS INFLUENCING DELAY IN TREATMENT SEEKING AFTER RELAPSE

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ABSTRACT

Background: Alcoholism is one of the major health issues in India characterized by much significant psychological, physiological and social dysfunctions associated with excessive and persistent use of alcohol. One study states that relapse following treatment reaches 75% in first 3 – 6 months period. Many studies found that adults with alcohol related problems postpone their treatment and they underutilize the resources. It is very important to understand the factors contributing to relapse and delay in seeking treatment in alcohol dependence.

Objectives : To study various factors contributing relapse in alcohol dependence and intra- group comparison for factors influencing delay in treatment seeking after relapse. To compare those factors among early and late treatment seekers.

Methodology: This is a cross sectional study conducted at the Institute of mental health, Chennai, a tertiary care hospital of Madras Medical College in 2017. 100 alcohol dependent patients who relapsed after treatment were included with informed consent and after approval by the institutional ethics committee. The participants after clinical diagnosis by consultants were assessed using semi-structured pro-forma for socio demographic details, Severity of alcohol dependence questionnaire(SADQ), Alcohol relapse risk scale(ARRS) and Duke's social support and stress scale(DUSOCS)

Results: 49% people presented for the treatment with 6 – 12 months delay.

84 % presented for the treatment within a year. 16% presented only after 1 year. 75% report social influence especially other social networks as reason for the delay. 56% report psychological influence especially not decided to stop drinking yet as a factor for their delay. 20% and 40% report situational influence and access barriers for the delay in treatment.

Conclusions: The following were the first 3 reasons for relapse elicited in our study- Family problems (57%), Peer pressure (39%), Craving (19%). While delaying treatment after relapse, only 27% reported within 3 months of relapse; nearly half of the people report by 3 – 6 months. Nearly 50% delay their treatment for more than 6 months after relapse. Person related factors like doubting the need for treatment, public stigma were the important factors delaying the treatment rather than treatment related factors. Those who seek treatment within 6 months of relapse have more social support and less stress.

KEYWORDS

Alcohol dependence, Relapse, Treatment barriers.

INTRODUCTION

Alcoholism or alcohol dependence is one of the major health issues in India and is a chronic and progressive disease characterized by much significant psychological, physiological and social dysfunctions associated with excessive and persistent use of alcohol. Consumption of alcohol has been rising greatly over the past 4 decades and accompanied by rise in the physical, social and psychological problems related to the use of alcohol.¹ NIMHANS in the year 2006 did a study in Bangalore sponsored by WHO – SEARO (World Health Organization – South East Asia Regional Office). They found that 33% of adult males consume alcohol regularly and brought into the light the drinking pattern in women. They said 2% of women consume alcohol regularly.² According to WHO, almost 2 billion people worldwide consume alcoholic beverages and approximately 76.3 million (nearly 1/3rd) have diagnosable disorder due to use of alcohol.³ And also alcohol as a cause of death in nearly 3.2% of all mortality and also resulted in 4% loss of total DALYs (i.e around 58 million).⁴ WHO also estimated that ¼ th to 1/3 rd of male population consume alcohol in south east Asian countries⁵ and the trend of alcohol use increasing among females.⁶ In India 62.5 million people consumed alcohol as per an estimate by WHO in 2005. In that 17.4% were dependent to alcohol use.⁷ And also 20 – 30% people admitted in hospital were due to problems related to alcohol.⁸

There are several factors identified related to the relapse of alcohol drinking. Alcohol dependence was characterized by the prolonged use and problems related to alcohol and persistent relapse vulnerability. The most important challenging aspect in assessing the outcome of treatment and the rate of relapse will be the lack of clarity regarding the relapse definition. Exploring these gaps is very important to make a uniform pattern of treatment and to develop relapse prevention strategies. Relapse following treatment reaches 75% in first 3 – 6 months period and important to understand the barriers to treatment by people with alcohol dependence. Saunders et al categorized barriers as person-related and treatment-related barriers.¹¹ In our study we tried to find various demographic factors associated with the risk of relapse in

alcohol use and also to find various factors contributing to delay in their treatment seeking after relapse. At last, we compared the various risk factors associated with the relapse between people who present early to treatment with the late treatment seekers.

METHODS

Setting: The study was conducted at the Institute of Mental Health, Madras Medical College, Chennai, a tertiary care center in Tamil Nadu after approval from institutional Ethics Committee from March to June 2017.

Study population: Adults who qualified for Alcohol dependence syndrome and got de-addiction treatment but relapsed were taken into the study, both in-patients and out-patients.

Sample size: A total of 100 subjects (by consecutive sampling) of alcohol dependence syndrome with relapse were taken. (as per sample size calculation with prevalence at 6-8%)

Study Design: Cross sectional study

INCLUSION CRITERIA:

1. Age 18 years and older, who gave consent
2. Individuals who qualified for alcohol dependence according to ICD-10 criteria.
3. Individuals who relapsed after alcohol de-addiction program.

EXCLUSION CRITERIA:

1. Patient with presence of major psychiatric illness.
2. Patient with history of head injury, neurological disease or hearing problems.
3. Alcohol dependent subjects who maintained abstinence after deaddiction program.

Operational Design:

After obtaining the written informed consent from the participants as

required by the intuitional Ethics committee, the following questionnaire and scales were employed:

1. Semi structured pro-forma for socio demographic details
2. Severity of addiction assessed by severity of alcohol dependence questionnaire (SADQ)
3. Alcohol relapse risk scale (ARRS)
4. DUSOCS (Duke's Social Support and Stress Scale) Mood symptoms assessed using
5. Hamilton's rating scale-Depression (HAM-D)
6. Young Mania Rating scale (YMRS)

The operational design is as below:

Fig.1. OPERATIONAL DESIGN

1. Socio demographics
2. Alcohol relapse risk scale
3. Duke's social support and stress scale.

STATISTICAL ANALYSIS:

The study design is cross-sectional descriptive study. Most of the variables used in our study are categorical in nature. Hence frequency and prevalence was calculated. Pearson's chi square test also known as Chi square test for independent variables and Chi square test of association was used to find any relationship between two categorical variables. P value of less than 0.05 was taken as significant.

RESULTS AND OBSERVATION

- 43% were between the age group 31 – 45 years.
- 92% of alcohol dependents were males.
- 52% of alcohol dependents belong to semiskilled labourers.
- 75% of alcohol dependence were below 10th standard.
- 69% belongs to urban and urban slum.
- 67% were married and 22% were single.

Table 1 : SOCIO DEMOGRAPHIC STATISTICS		
Variables	Frequency	Percentage
Age distribution		
16-30yrs	19	19
31-45yrs	43	43
Above 45yrs	38	38
Gender distribution		
Male	92	92
Female	7	7
Transgender	1	1
Educational status		
Illiterate	11	11
Primary school	14	14
High school	50	50
Higher secondary	23	23
Graduate	2	2
Occupational status		
Unskilled worker	19	19
Semi skilled	52	52
Skilled	29	29
Residential area		
Rural	31	31
Urban	56	56
Urban slum	13	13
Marital status		
Single	22	22
Married	67	67
Divorced	8	8
Widowed	3	3

Alcohol dependence related parameters are as below:

- 68% of alcohol dependents had their first drink before the age of 20 years
- 76% of alcohol dependents met the ICD 10 criteria for dependence before the age of 30 years.
- 61% has more than 5 year's duration of dependence on alcohol.
- 55% in our study group belong to severe alcohol dependent people. [SADQ > 30 denotes severe dependence.]
- 68% people relapsed into use of alcohol in less than 1 year. Only 8% maintained abstinence for more than 2 years.
- 57% people said family problems as their reason for relapse 39% as peer pressure, 19% said that they relapsed due to alcohol craving.
- 84% presented for the treatment within a year; 16% presented only after 1 year.
- 75% report social influence ;56% report psychological influence especially not decided to stop drinking yet as a factor for their delay; 20% and 40% report situational influence and access barriers for the delay in treatment.

In reasons for relapse 57% people said family problems as their reason ; 39% as peer pressure and 19% as craving

Chart 1

Table.2 Distribution of various factors influencing treatment delay

Social influence		Psychological influence	
Factors	Frequency (%)	Factors	Frequency (%)
Spouse	4 (4%)	Not a serious problem	12 (12%)
Other social network	58 (58%)	Denial	2 (2%)
Attitude towards Drinking	13 (13%)	Not decided to stop	24 (24%)
None	25 (25%)	Personal stigma	18 (18%)
		Lack of control	56 (56%)

75% report social influence especially other social networks as reason for the delay; 56% report psychological influence especially "lack of control" as a factor for their delay. Situational influence (20%) and access barriers (40%) were also reported.

COMPARISON OF ALCOHOL RELAPSE RISK SCALE BETWEEN EARLY AND LATE TREATMENT SEEKERS.

Alcohol Relapse Risk Scale (ARRS)	DURATION OF DELAY	N	Mean	Std. Deviation	Std. Error Mean	t value	p value
Stimulus Induced Vulnerability	>1 Yr	16	2.4544	1.0997	.02749	0.332	0.74
	<1 yr	84	2.8912	5.23535	.57122		
Emotional Problems	>1 Yr	16	2.7688	3.8810	.09703	3.922**	p<0.001
	<1 yr	83	2.2318	5.1942	.05701		
Compulsivity Alcohol	>1 Yr	16	1.8950	.73299	.18325	1.914	0.058
	<1 yr	84	1.5436	.66156	.07218		
Negative Expectancy	>1 Yr	16	1.2813	3.1458	.07864	2.535*	0.014
	<1 yr	84	1.5726	.76805	.08380		
Positive Expectancy	>1 Yr	16	2.8313	5.1861	.12965	3.077**	p<0.001
	<1 yr	84	2.1739	.82192	.08968		
Insight	>1 Yr	16	1.5625	4.4553	.11138	1.496	0.138
	<1 yr	84	1.8310	.68950	.07523		

Table 3. Total mean score in early treatment seeker – 12.2441 and in late treatment seekers – 12.775; The mean score of alcohol relapse risk is more or less the same between the groups. But in subscales, there is a statistically significant difference between two groups in emotional problem, negative expectancy and positive expectancy.

Table 4.

COMPARISON OF DUKE'S SOCIAL SUPPORT AND STRESS SCALE BETWEEN EARLY AND LATE TREATMENT SEEKERS.

Dukes social support and stress scale (DUSCOS)	DURATION OF DELAY	N	Mean	Std. Deviation	Std. Error Mean	t value	p value
Family_support	>1 Yr	16	30.3544	14.16462	3.54115	3.654*	p<0.001
	<1 yr	84	48.0696	18.35039	2.00219		
Non_Family_support	>1 Yr	16	23.7500	19.95829	4.98957	0.079	0.937
	<1 yr	84	24.1429	17.79071	1.94113		
Social_support	>1 Yr	16	30.1100	13.05443	3.26361	2.693*	0.003
	<1 yr	84	42.5146	17.48708	1.90800		
Family_stress	>1 Yr	16	52.6750	23.30858	5.82714	4.193*	p<0.001
	<1 yr	84	31.0767	17.96686	1.96034		
Non_Family_Stress	>1 Yr	16	43.1250	26.00481	6.50120	5.483*	p<0.001
	<1 yr	84	13.5714	18.40919	2.00861		
Social_Stress	>1 Yr	16	52.8381	12.29701	3.07425	7.893*	p<0.001
	<1 yr	84	26.7854	12.06508	1.31641		

Chart 2

DISTRIBUTION OF SUPPORT

There were statistically significant scores on family and social support which were high among early treatment seekers. i.e. < 1 year.

Chart-3.

STRESS SCORES ON DUSCOS

Similarly there is statistically significant difference on stress scale, that

family stress, non family stress and social stress were high among late treatment seekers(>1yr).

Chart 4. Comparison Of Sociodemographics And Alcohol Related Variables Between Early And Late Treatment Seekers

Those who seek treatment beyond 1 year of relapse belong to the age group 16 – 30 years. The higher the age, early the treatment seeking habit. Similarly, these who seek treatment beyond 1 year were skilled labourers and educated more i.e. higher secondary and graduates. Those who seek treatment early were married compared to those who delay their treatment.

Table 5.

COMPARISON OF SOCIO DEMOGRAPHICS AND ALCOHOL RELATED VARIABLES BETWEEN EARLY AND LATE TREATMENT SEEKERS.

Variables	<1 year N = 84	>1 year N = 16	η	P
Age group	16 – 30	9(10.7%)	23.938	< 0.001
	31 – 45	41(48.8%)		
	>45	34(40.5%)		
Gender	Male	76(90.5%)	1.656	0.437
	Female	7(8.3%)		
	Transgender	1(1.2%)		
Occupation	Unskilled	19(22.6%)	15.574	< 0.001
	Semiskilled	47(56.0%)		
	Skilled	18(21.4%)		
Education	Illiterate	9(10.7%)	26.082	< 0.001
	Primary	14(16.7%)		
	High school	47(56.0%)		
	Higher secondary	14(16.7%)		
	Graduate	0		

Residence	Rural	27(32.1%)	4(25.0%)	0.369	0.832
	Urban	46(54.8%)	10(62.5%)		
	Urban slum	11(13.1%)	2(12.5%)		
Marital status	Single	12(14.3%)	10(62.5%)	20.270	< 0.001
	Married	63(75%)	4(25%)		
	Divorced	6(7.1%)	2(12.5%)		
	Widow	3(3.6%)	0		
Type of family	Nuclear	56(66.7%)	9(56.2%)	0.947	0.623
	Joint	27(32.1%)	7(43.8%)		
	Extended	1(1.2%)	0		
Age at first drink	<20	56(66.7%)	12(75%)	0.549	0.760
	20 – 30	27(32.1%)	4(25%)		
	30 – 40	1(1.2%)	0		
Age at dependence	<20	16(19%)	10(62.5%)	13.303	0.004
	20 – 30	46(54.8%)	4(25.0%)		
	30 – 40	20(23.8%)	2(12.5%)		
	>40	2(2.4%)	0		
Duration of dependence	<5	29(34.5%)	10(62.5%)	6.300	0.098
	6 – 10	14(16.7%)	2(12.5%)		
	11 – 15	18(21.4%)	0		
	>15	23(27.4%)	4(25%)		
Severity of dependence	0 – 15	3(3.6%)	0	11.598	0.003
	16 – 30	41(48.8%)	1(6.2%)		
	>30	40(47.6%)	15(93.8%)		

Regarding alcohol use, individuals with earlier the age at dependence and more severe dependence delay the treatment when compared to others. There was no statistically significant difference in gender, residence, family type, age at first drink and duration of dependence between the two groups.

DISCUSSION

The socio demographic profile and the pattern of alcohol consumption not only help us to understand the patient's background but also their influence on relapse. The Bangalore study stated that 67.4% of alcohol users were between the ages 26 – 45 years; has low educational level when compared to the control population and major proportion were unskilled workers and married. These findings were replicated in our study also, as we found that 62% belong to the age group 16 – 45 years, nearly 71% were below 10th standard, 67% were married.²

Korlakunta et al also confirmed majority were middle aged and married; 94.7% of their sample was also men. In our study also 92% were males. This showed that the problem due to alcohol relapse was common in males. In their sample 78.9% of patients hailed from rural background.²⁷ But in our study only 31% were from rural area and the rest from urban and urban slums as the selected location of our study center was an urban location.

Regarding duration of alcohol use, the Bangalore study found that 72.1% of people using alcohol for 5 years and more. In our study also we found that 61% has dependent pattern of use for 5 years and more.² Korlakunta et al²⁷ reported the age group range at first drink as 41.6% started alcohol between 21 – 25 years, 27.4% in less than 20 years and 20% at 30 years and above and in our study it was 68% in less than 20 years and 31% in 20–30 years range. And also they found 38.4% became dependent on alcohol at 30 years & above and it was 50% at 20–30 years in our study.

John et al did a study with 245 men, they found that the mean age of presentation was 42.2% years, the mean schooling was 7.6 years, 71.9% were married and 54.2% were in nuclear families and the findings correlated well with our study that 67% married, 65% in nuclear family, 75% below 10th standard.²⁹

Korlakunta et al stated that 44% patients admitted that craving as their reason for relapse and according to Connors et al also in 1998, they found that the factors contributing to relapse were desire to drink, psychological cravings, spouse or partner's factors and feeling down. In our sample, we found that only 19% accept craving as reason for their relapse and stated that family problems (57%) and peer pressure (39%) were the main reasons for relapse.

In a study done by Nagaich et al stated that 97.9% of their samples were married the more responsibilities and less bonding with family cause them to restart their drinking habit.⁹ Our study confirmed this that 57% admitted that their family problems were being the reason for their relapse.

Regarding delay in treatment seeking 58% stated other social network delayed their treatment; majority stated their own psychological influences particularly lack of control (56%) delayed their presentation to treatment. Only 28% stated that treatment related belief as barriers and another 12% stated the service proximity as their barrier to seek treatment and it correlated well with a study by Saunders et al on assessing treatment barrier which concluded that the important factors were 'person-related' rather than treatment related delay factors.²³ The person related belief that their alcohol drinking is 'not a concern' or 'not a problem' was the important factor for delayed treatment in this study by Cunningham et al in 1993.²²

Similarly in DUSOCS scales' comparisons, "social supports" were better among early treatment seekers and this finding was supported by various other studies by Vijayan et al³² and another study by Dixit et al on social support.³³

On comparing socio-demographic features between early and late treatment seekers, we found there were only significant differences noted in age and occupation status.

CONCLUSION

Alcohol relapse is more common in the age group 31– 45 years, more among males, majority were unskilled and semiskilled workers and belonging to lower educational status.

And majority of the subjects who relapse were married and live in nuclear family.

Many started to consume alcohol below the age of 20 years, become dependent in the next 10 years i.e. 20 – 30 years.

Those who relapse after treatment were severely dependent on alcohol as per SADQ scores

Nearly half of the subjects maintained abstinence after de-addiction treatment only for 6 months. About 2/3rd maintained abstinence for a year. Only 8% maintained abstinence for more than 2 years.

The first 3 reasons for relapse elicited in our sample were Family problems (57%), Peer pressure (39%) and Craving (19%)

Nearly 50% delay their treatment for more than 6 months after relapse.

Person related factors like doubting the need for treatment, stigma were the important factors delaying the treatment rather than treatment related factors.

Those who seek treatment within 6 months of relapse have more social support and less stress.

Similarly emotional problem and positive expectancy to alcohol more among late treatment seekers.

STRENGTH OF THE STUDY:

Adequate sample and well validated scales were used in this study; majority of findings were similar to the previous studies and significant in understanding the reasons for relapse and delay for treatment seeking so as to focus our intervention targeting those factors.

LIMITATIONS

The treatment details, comorbid other substance use, psychopathology and personality factors were not taken into consideration in this study. Impairments in their personal, occupational or social functioning were not considered in this study.

FUTURE DIRECTIONS

This study can be done prospectively following the subjects after deaddiction treatment and the course of their abstinence. Also this can be done with various treatment modalities during deaddiction and their effectiveness during abstinence.

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