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Original Research Article

A follow – Up study on coping strategies and its association with relapse among alcohol dependent patients

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ABSTRACT

Introduction: Alcohol consumption is a major problem in India. Alcohol dependence develops due to various factors, like individuals' characteristics and social factors. The study was done to analyze coping strategies in relation to alcohol dependence and relapse.

Materials and Methods: A follow-up study was conducted among 103 patients who attended the Psychiatry department for de – addiction treatment in a tertiary care centre in Chengalpattu, Tamil Nadu. A validated semi-structured questionnaire was used to collect details of Socio-demographic characteristics. The Severity of Alcohol Dependence Questionnaire and the Brief-COPE questionnaire were administered. The statistical analysis was done using SPSS version 20.

Results: Out of 127 participants, 24 dropped out of the study. 103 patients were followed up for a period of 6 months. At the end of the follow-up period, around 66% of patients relapsed. (N=69). About 64.1% of study participants belong to the age group of 31–50 years. Compared with their counterparts, non-relapsers were practicing adaptive coping strategies and relapsers were practicing maladaptive coping strategies (statistically significant $p < 0.05$). Relapsers were practicing styles like Denial, Substance abuse, and self-blame more than the non-relapsed, and those differences were statistically significant ($p < 0.05$). Nearly 55% of the relapsers had severe Alcohol Dependence when compared to non-relapsers (32.3%), and the difference was statistically significant ($p < 0.05$).

Conclusion: The study showed that poor coping among individuals with alcohol dependence was one of the factors contributing to relapse. Measures to improve Coping skills in de-addiction centres and Rehabilitation units will help dependent individuals to remain abstinent.

1. Introduction

Alcohol consumption is a major problem in India. It is influenced by various factors like socio-cultural practices, government policies, media propaganda, and the emerging trend of social drinking as a result of urbanization. The National Mental Health Survey of India 2015–16 shows that the prevalence of Alcohol use disorders (AUD) in adult men is around 9%. AUD is strongly associated with various mental health problems like depression, anxiety, drug misuse, Nicotine dependence, and self-harm. About 41% of suicides and around 23% of individuals who engaged in deliberate self-harm were associated with Alcohol dependence.[1] Alcohol dependence is chronic in nature and is due to a combination of various factors such as individuals' characteristics, environmental variables, genetic factors, and social factors.[2–4] Novelty seeking can be a predictor of Alcohol dependence.[5,6]

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Relapse is a complex process. According to the social-cognitive behavioural model of Marlatt et al., relapse is due to three categories of stressors. They are conflicts between family members, pressure put forth by society, and negative adverse events.[7] Relapse is followed by a series of behaviour changes where the individual returns to a more severe form of problematic drinking.[8] According to the Relapse Prevention Model by Marlatt et al, various factors precipitate relapses in alcohol-dependent individuals. They include situations like feeling lonely or angry, conflict with family members, problems with coping, lifestyle changes, cravings, etc. Individual temperament, peer pressure, personality, genetic loading, environmental factors, socio-economic factors, craving, stressful events, self-efficacy, and low social support can lead to relapse.[9–11]

Sharma et al. did a study and found that relapse was highly associated with individuals who were less than 30 years of age, had a lower educational status, were from a low socioeconomic class, were not working, had familial risk, and had a previous criminal record.[12] Thomas et al. conducted a study and found that an individual's personal control over substance use was the most common risk factor leading to Relapse.[13] Findings of Suresh Kumar et al. show that Variables like positive family history, more than two Relapses in the past, an early age of onset of Alcohol dependence, and a very short time taken to develop Dependence are highly associated with Relapse.[14]

Patients with AUD used a range of strategies, like getting involved in activities that distract them from drinking, involvement in religious activities, and restricting access to alcohol.[15] Alcohol dependence patients developed a mechanism of emotional regulation that helped them immediately soothe these disturbing emotions rather than alter the stressful circumstances.[16] The way in which an individual exhibits coping in response to stress not only has a short-term effect but, in the long run, also affects their somatic health, mental well-being, and social functioning.[17]

Mattoo et al. concluded that alcohol-dependent individuals who had relapsed were experiencing a greater number of undesirable life events than the non-relapsed.[18] In a study done with homeless people in Poland, a combination of emotion- and avoidance-oriented styles was the most common coping strategy (20.51%)[19]. When exposed to stressors, individuals with problem-focused strategies are highly like to develop Relapse. Avoidant Coping strategies are consistently associated with both heavy drinking and Alcohol-related problems.[20,21]

The present study attempts to address this complex relationship between alcohol dependence, vulnerability to relapse, and coping strategies. The findings would supplement the current relapse prevention and treatment measures.

2. Objectives

1. To assess the coping strategies of alcohol-dependent individuals.
2. To co-relate the coping styles between relapsed and non-relapsed.
3. To compare the severity of alcohol dependence with respect to coping strategies among the relapsed and the non-relapsed.

3. Materials and Methods

The study population consisted of patients attending the De-addiction outpatient department at the Chengalpattu Medical College Hospital, a tertiary care centre situated in the South Indian state of Tamil Nadu. Institutional ethical committee approval and Informed Consent from participants were obtained.

The study was conducted between April 2019 and June 2020. 127 patients visiting the De-addiction OPD who fulfilled the ICD-10 criteria for Alcohol Dependence Syndrome and were under De-addiction treatment were included in the study by convenient sampling method. In a study done by Suresh Kumar et al.,[14] the percentage of Relapses was 53.03%. By applying it to the formula $(1.96)^2 * p * q/d^2$, the Sample size was estimated to be 96. [Z = 1.96; d = 10%; p = 53.03; q = 46.96]. Since this was a Follow-up study, we expected a 30% dropout rate, and thus the sample size was re-estimated and about 127 patients who were attending the psychiatric department for de-addiction management and fulfilling the criteria (Figure 1) mentioned below got selected.

3.1. Study tool

A validated semi-structured questionnaire was used to collect details of Socio-demographic characteristics. The severity of alcohol dependence was assessed using the Severity of Alcohol Dependence Questionnaire (SADQ). SADQ is a self-reporting scale with 20 items that are scored on a Likert scale of 0-4. A score of more than 30 indicates severe alcohol dependence.

The Brief-COPE is a 28-item self-report questionnaire designed to measure effective and ineffective ways to cope with a stressful life event. The scale is often used in health-care settings to ascertain how patients are responding to certain situations. The scale can determine someone's primary coping style as either Approach coping or Avoidant Coping.

Both the SADQ and Brief-COPE questionnaires were self-reporting tools. Considering the fact that a substantial amount of variation might prevail among participants in relation to their educational background, these tools were translated into the local language. Their reproducibility was tested by re-translating into English and then administered among the participants. After assessing the patients through

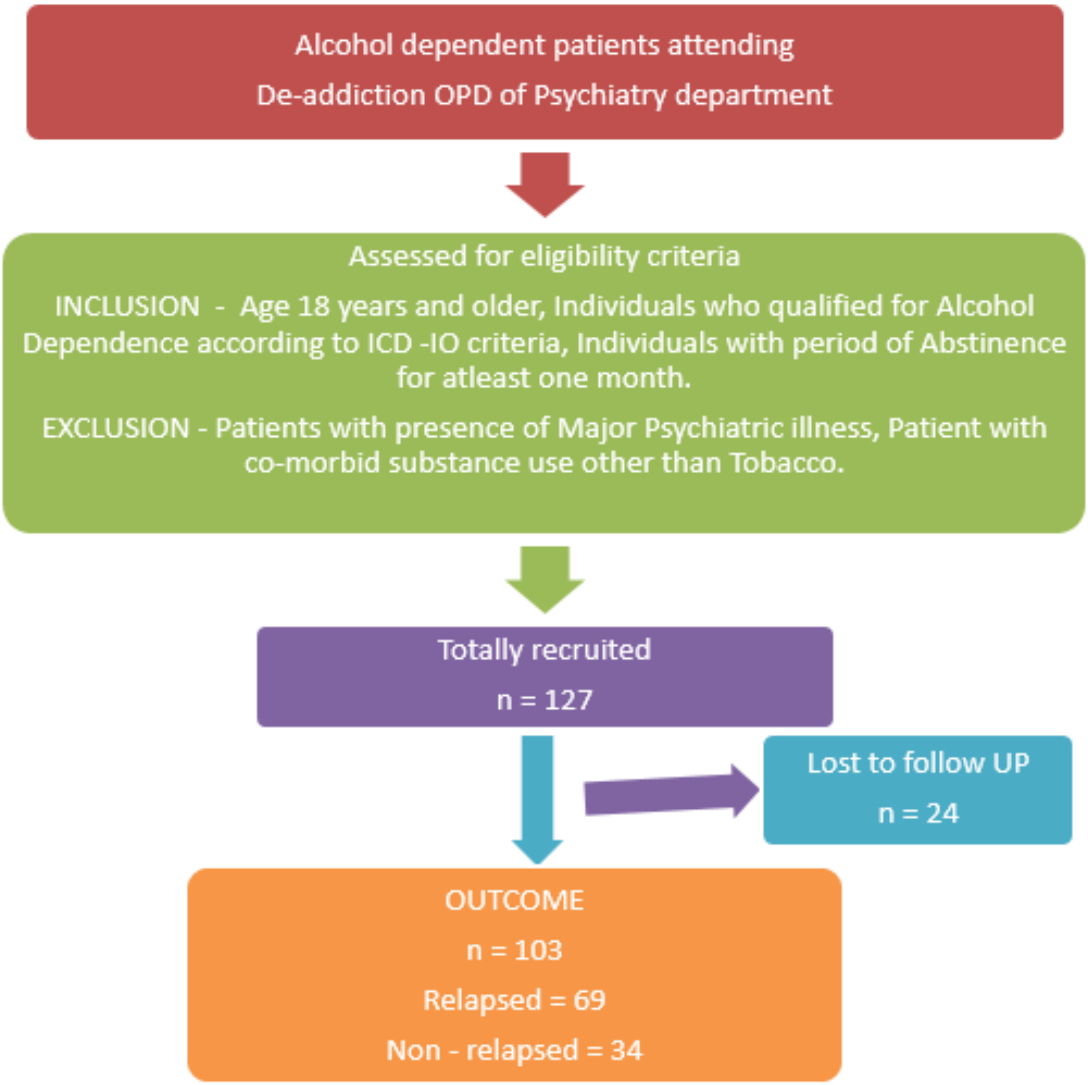

Figure 1: STROBE flow diagram (modified) – recruitment, follow up and outcome of participants.

the above-mentioned tools at baseline, they were followed up monthly for a period of 6 months.

3.2. Statistical analysis

The statistical analysis was done using SPSS version 20. Continuous variables were presented in the form of Mean and Standard deviation, whereas Categorical variables were presented in the form of Frequency distributions and percentages. Associations between categorical variables were tested using the Chi-square test, while continuous variables were analyzed using the Independent t test and Spearman's correlation. The significance was set at a p-value of < 0.05.

4. Results

Out of 127 participants, 24 dropped out of the study. 103 patients were followed up for a period of six months. At the end of the follow-up period, around 66% of patients relapsed (N = 69).

From Table 1, it was evident that about 64.1% of study participants belong to the age group of 31–50 years, and 60.2% of them belonged to the lower socio-economic class.

Non- relapsed participants were practising Adaptive coping strategy more than the Relapsed counterparts and the difference was statistically significant ($p< 0.05$). Regarding styles, Active coping, Informational support, Planning, Acceptance, and humour were significantly more practiced by the non-relapsers than the relapsers ($p < 0.05$) (Table 2).

Table 3 revealed that relapsers were practising Mal-adaptive coping strategy more than the non –relapsers

Table 1: Distribution of Socio-Demographic Variables of Participants:

S.No.	Variables	Frequency (n)	Percentage (%)
1.	Age		
	Up to 30	20	19.4
	31 to 50	66	64.1
	Above 51	17	16.5
2.	Residence		
	Urban	49	47.6
	Rural	54	52.4
3.	Education		
	Primary	32	31.1
	Secondary	52	50.5
	Higher secondary & above	19	18.4
4.	Occupation		
	Unemployed	17	16.5
	Semiskilled	48	46.6
	Skilled	38	36.9
5.	Socio-Economic Status		
	Upper	3	2.9
	Upper Middle	15	14.6
	Lower Middle	23	22.3
	Lower	62	60.2

Table 2: Comparison between relapsed and non-relapsed – adaptive strategy (Brief COPE Scale)

S.No	Coping style	Outcome	N	Mean	Standard Deviation	Standard Error Mean	t value	p value
1	Active coping	Relapsed	69	4.54	1.119	.135	-2.582	**0.008***
		Non – relapsed	34	5.12	.977	.168		
2	Emotional support	Relapsed	69	4.28	1.542	.186	-1.957	**0.044***
		Non – relapsed	34	4.88	1.343	.230		
3	Informational support	Relapsed	69	3.87	1.013	.122	-2.628	**0.017***
		Non – relapsed	34	4.47	1.237	.212		
4	Positive reframing	Relapsed	69	4.65	1.186	.143	-1.818	0.062
		Non – relapsed	34	5.09	1.055	.181		
5	Planning	Relapsed	69	4.38	1.072	.129	-3.614	**<0.001***
		Non – relapsed	34	5.15	0.892	.153		
6	Acceptance	Relapsed	69	4.43	1.182	.142	-2.188	**0.030***
		Non – relapsed	34	4.97	1.141	.196		
7	Humour	Relapsed	69	3.36	1.465	.176	-3.424	**<0.001***
		Non – relapsed	34	4.44	1.580	.271		
8	Religion	Relapsed	69	3.35	1.513	.182	-0.916	0.377
		Non – relapsed	34	3.65	1.649	.283		
Adaptive		Relapsed	69	32.8551	5.64977	.68015	-4.203	**0.01***
		Non -relapsed	34	37.7647	5.41635	.92890		

Statistical test – Independent T test

and difference was statistically significant ($p < 0.05$). Relapsers were practicing styles like Denial, Substance abuse, and self-blame more than non-relapsed people, and those differences were statistically significant ($p < 0.05$).

Nearly 55% of the relapsers had severe alcohol dependence when compared to non-relapsers (32.3%) and difference was statistically significant ($p<0.05$).(Table 4)

A moderate Positive correlation exists between Severity of Alcohol dependence and Maladaptive Coping strategy, and it is statistically significant ($p< 0.05$) (Table 5).

5. Discussion

The 6-month follow-up study was conducted among alcohol dependent patients, and nearly $2/3^{rd}$ (66%) of them developed relapse at the end of the follow-up period.

A study done by Chauhan VS et al.[7] showed that nearly half of the subjects belonged to the age group of 31–40 years. Korlakunta et al. study[22] showed $3/4^{th}$ belonged to the age group of 31–45 years. These findings were similar to the current study, where nearly $2/3^{rd}$ of them belonged to

Table 3: Comparison between relapsed and non-relapsed – maladaptive strategy (Brief COPE Scale)

S.No	Coping style	Outcome	N	Mean	Standard Deviation	StandardError Mean	t value	p value
1	Self-distraction	Relapsed	69	4.32	1.567	.189	0.441	0.655
		Non-relapsed	34	4.18	1.487	.255		
2	Denial	Relapsed	69	3.84	1.975	.238	2.535	**0.005***
		Non-relapsed	34	2.88	1.387	.238		
3	Substance use	Relapsed	69	6.38	1.832	.221	2.508	**0.024***
		Non-relapsed	34	5.32	2.319	.398		
4	Behavioural Disengagement	Relapsed	69	4.20	1.623	.195	1.214	0.224
		Non-relapsed	34	3.79	1.572	.270		
5	Venting	Relapsed	69	4.29	1.446	.174	1.231	0.229
		Non-relapsed	34	3.91	1.505	.258		
6	Self-blame	Relapsed	69	5.26	1.930	.232	2.699	**0.012***
		Non-relapsed	34	4.12	2.199	.377		
Maladaptive		Relapsed	69	28.2899	7.62562	o.91802	2.573	**0.012***
		Non-relapsed	34	24.2059	7.46620	1.28044		

Statistical test – Independent T test

Table 4: Severity of alcohol dependence among relapsed and non-relapsed patients.

Severity of alcohol dependence	Relapsed	Non relapsed	Chi-square	p-value
Severe	38(55.0%)	11(32.3%)	4.714	**0.030***
Mild to moderate	31(44.0%)	23(67.6%)		

Statistical test – Chi – square test

Table 5: Correlation between severity of alcohol dependence and coping strategies

S.No.	Independent variable	Dependent variable	Correlation	Coefficient 'r'	p value
1	Severity of Alcohol Dependence	Coping – Adaptive Strategy	Spearman's	-0.115	0.247
2		Coping-Maladaptive strategy		0.403	**<0.01***

Statistical method - Spearman's correlation

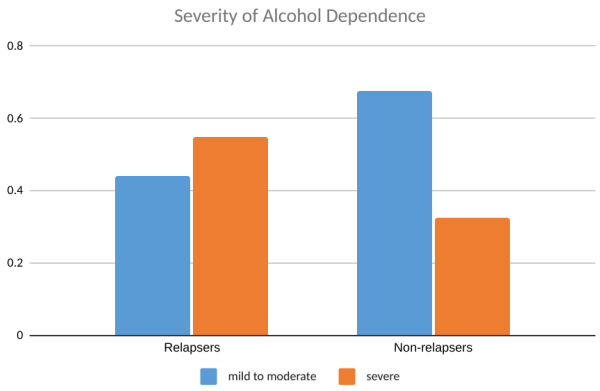

Figure 2: Severity of alcohol dependence among relapsers and non –relapsers.

the age group of 31–50 years. In all the above-mentioned studies, it was obvious that most of them had their age of onset of alcohol use below 25 years. Since they started their substance abuse at a much younger age, the resultant chronic habit of alcohol abuse might be the reason why alcohol dependence is more common among middle-aged participants.

Korlakunta et al. study showed that $4/5^{th}$ of the participants were employed, which was similar to the present study, where nearly $3/4^{th}$ of the participants were employed in either Semi-skilled or Skilled jobs. Most of the alcohol-dependent patients are employed, money holders and not dependent on others for personal expenses, which would have made them procure more substance.[22]

In the present study, non-relapsers practised adaptive Coping strategy and styles especially Active coping, Informational support, Planning, Acceptance, and Humour in order to maintain abstinence. These findings were contrary to the findings of the study done by Nadkarni et al which showed that both adaptive and maladaptive coping strategies and styles such as Avoidance, Substitution, Distraction, Religious activities, Support from family and Anger management were effective to remain abstinent. Inter – related positive factors might have played a vital

role in getting customized to adaptive coping strategy and styles among a portion of alcohol dependent individuals and eventually turning into non – relapsers.[15]

In the current study no statistically significant difference was found between Relapsed and Non – relapsed in practising Emotional support style of coping. This was contradicting with a study done by Miller et al[2] which showed that emotional support was an important factor in determining abstinence from alcohol. In the background of insufficient financial, social and family support, the family members of Alcohol Dependent individuals were unable to receive emotional support and it got reflected in the study.

A study by Vieten et al in 2010[23] suggested an acceptance based intervention model to reduce Relapse in Alcohol Dependence and found it to be promising. In our study, patients who used acceptance as a coping strategy were maintaining abstinence during the follow up period. Acceptance could be an effective style only if it was in sturdy linkage with internal drive to get away from alcoholism and remain abstinent.

In the current study, non-relapsers were practicing adaptive coping strategies, while relapsers practiced maladaptive coping strategies like Denial, Substance abuse, and Self-blame. Factors like education, income, emotional support, family support, accessibility and availability of health care provisions including de-addiction centers, counselling, etc., might have played a role in splitting up of alcohol dependent individuals into relapsers and non-relapsers and the selection of respective coping strategies. The limitation of our study is that it was a hospital-based study. A long-term follow-up would give much more understanding about the relapse and its associated factors.

6. Conclusion

Alcohol Dependence Syndrome is a chronic relapsing disorder. This study showed that poor coping skills among individuals with alcohol dependence were one of the factors contributing to relapse. Measures to improve Coping skills in De-addiction centres and Rehabilitation units would help dependent individuals to understand the illness and remain abstinent, thereby providing better health outcomes.

7. Source of Funding

None.

8. Conflict of Interest

None.

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