International Journal of Research and Review
www.ijrrjournal.com E-ISSN: 2349-9788; P-ISSN: 2454-2237

Original Research Article

A Cross Sectional Study on Motivation to Quit and Abstain From Alcohol and Factors Affecting Relapse in Alcohol Use Disorders

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ABSTRACT

Introduction: Alcohol-related problems account for over a fifth of hospital admissions in India. Successfully handling and treating unmotivated patients continues to be a daunting challenge faced by clinicians across the globe. This study was planned to assess motivation to quit and abstain from alcohol and factors affecting relapse in alcoholics.

Material and method: A cross sectional study was conducted among 30 patients in outpatient unit and inpatient unit of Department of Psychiatry, Subharti Medical College, Meerut. Patients were selected on the basis of convenience sampling criteria attending psychiatry OPD, aged between 18-65 years, diagnosed by a consultant psychiatrist in accordance with ICD 10. Scales used to record subjects responses were URICA, AUDIT and the Aware Questionnaire.

Results: The mean age of the participants was 39.27±7.40 years. Most subjects(93.33%) in current study have audit score of >15 putting them at a serious risk for alcohol abuse and addiction while only a few (6.67%) scored between 8-10 putting them at some risk and none scored below 8. Mean pre-contemplation and contemplation scores were highest in the age group of 18-30 year old participants, the mean action score was highest in the age group of 41-50 years(2.61) and the mean maintenance score was the highest in the age group >50 years(2.57).

Conclusion: Most substance abuse treatment programs and self-help initiatives are designed to assist patients who are motivated and address their problems. However, people who are not ready to change or who are in the early stages of change are also admitted into these programs. Therefore, most clinicians need to know how to handle poorly motivated or ambivalent patients.

Keywords: Alcohol, Abuse AUDIT, URICA

INTRODUCTION

Alcoholism is a problem faced by most countries across the globe. [1] Alcohol-related problems account for over a fifth of hospital admissions in India, but are under recognized by primary care physicians. [2] The National Family Health Survey 4 conducted by the Ministry of Health and Welfare of India in 2014-2015 reported prevalence of alcohol consumption being 29% among men, of these 12 % had a pattern of daily consumption. Among women it was found only 1% of women is consuming alcohol and interestingly rates of daily consumption among this group is higher than males at 18%. [3]

There has been a gradual trend towards a steady increase in alcohol consumption as time passes and the last century has seen the consumption of alcohol almost doubling among the adult population. As the rates of morbidity and mortality linked with alcohol use disorders continue to increase there is an urgent need to address the issue in an effective and expansive manner. [4]

A major roadblock faced while treating alcohol addiction is the lack of an efficient and productive long term treatment plan. While most de-addiction strategies manage to successfully tackle short term alcohol addiction they fail to produce long lasting results. Most of the patients successfully detoxified relapse within less than 3 months of starting treatment. [5] These high rates of prevalence of relapse have forced some clinicians to adopt a somewhat fatalistic approach and accept its inevitability. [6]

Motivation is the key to changing any habit including drinking alcohol. It is extremely challenging to treat unmotivated patients as a majority of them never visit clinics unless in association with some health related problems that in most cases have a direct connection to their alcohol consumption. Hence these medical comorbidities and alcohol related problems serve as major motivating factors for such patients. [7,8] The importance of motivation is gradually being acknowledged and understood and multiple de-addiction programmes are now actively incorporating strategies to improve motivation, but much is yet to be learned. Successfully handling and treating unmotivated patients continues to be a daunting challenge faced by clinicians across the globe. [9] Hence to gain a more comprehensive understanding this study was planned to assess motivation to quit and abstain from alcohol and factors affecting relapse in alcoholics.

MATERIAL AND METHOD

A cross sectional study was conducted among 30 patients in outpatient unit and inpatient unit of Department of Psychiatry, Subharti Medical College, Meerut. The study protocol for all procedures was approved by the Institutional Review Board for Ethical Clearance of Chattrapati Shivaji Subharti Hospital and was performed in accordance with the Code of Ethics of the World Medical Association according to the Declaration of Helsinki of 1975, as revised in 2000. All patients were asked to sign a written consent form prior to commencement of the study. Patients were selected on the basis of convenience sampling criteria attending psychiatry OPD, aged between 18-65 years, diagnosed by a consultant psychiatrist in accordance with ICD-10.The subjects were selected according to the following inclusion and exclusion criteria:

Inclusion Criteria

1. Patients fulfilling ICD-10 criteria for Alcohol dependence F10.
2. Capable of giving informed consent

Exclusion Criteria

1. Patients having other major psychiatric diagnoses.
2. Patients unable to answer proforma due to their psychiatric or medical conditions
3. Patients with language impairment or mental retardation.

Data collection: The data was collected by a preformed semi-structured interviewer-administered questionnaire consisted of socio demographic profile, clinical profile, alcohol use profile and personality questions. The Modified Kuppuswamy Scale [10] for Socio Economic Class was used to measure SES in urban and peri-urban communities.ICD 10 criteria was used to make the diagnosis of alcohol dependence.

University Of Rhode Island Change Assessment Scale (URICA): [11] URICA; 32-item self-report measure has been used. It includes 4 subscales measuring the stages of change, namely, Pre-contemplation, Contemplation, Action, and Maintenance. Responses are given on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement).

The Alcohol Use Disorders Identification Test (AUDIT): [12] is a 10-item screening tool developed by the World Health Organization (WHO) to assess alcohol consumption, drinking behaviors, and alcohol-related problems. A clinician-administered version was used. AUDIT consists of 10 questions scored individually from 0 to 4. The questionnaire contains 10

questions; three questions on use, four on dependence and three questions about problems related to use. A total score of >8 is an indication of alcohol abuse, a score of >15 indicates serious abuse/addiction whilst a score between 8 and 10 is an indication of being at risk.

The Aware Questionnaire: [13,14] was designed as a measure of the warning signs of relapse. This questionnaire comprised of 28-item scale (version 3.0) (Miller & Harris, 2000)101. This is a self-report questionnaire that can be filled out by the subject. Be sure that the subject understands the 1-7 rating scale. The higher the score, the more warning signs of relapse are being reported by the client. The range of scores is from 28 (lowest possible score) to 196 (highest possible score).

Data was collected in semi-structured data collection forms. All the findings and observations were coded and entered in Excel master sheet.

Statistical analysis: The means and standard deviations of the measurements per group were used for statistical analysis (SPSS 22.00 for windows; SPSS Inc, Chicago, USA). For each assessment point, data were statistically analyzed using factorial ANOVA. Difference between two groups was determined using student t-test as well as fisher exact test and the level of significance was set at $p < 0.05$.

RESULTS

All the participants were male. The mean age of the participants was 39.27±7.40 years. The age wise distribution shows that maximum participants were from the age group of 41-50 years (46.67%) followed by 31-40 year age group (43.33%) as shown in table 1.

Table 1: Gender and age distribution of subjects

Variables	N	%
Gender		
Male	30	100
Female	0	0
Age group (in years)		
18-20	1	3.33
21-30	2	6.67
31-40	13	43.33
41-50	14	46.67
>50	0	0
	Mean	SD
Age (in years)	39.27	7.40

Table 2: The Alcohol Use Disorders identification Test score, AWARE test score and URICA scale distribution among the study population

Variables	N	%
AUDIT		
>8 (Alcohol abuse)	0	0
8-10 (Being at risk)	2	6.67
>15 (serious abuse/addiction)	28	93.33
AWARE test score		
56-70	2	6.67
71-100	14	46.67
101-130	12	40
>130	2	6.67
URICA scale		
Pre-contemplation	10	33.33
Contemplation	11	36.67
Action	4	13.33
Maintenance	5	16.67

Table 3: Association of Socio Demographic factors with URICA scale stages of change

Socio-Demographic Factors		Pre-contemplation	Contemplation	Action	Maintenance
Age group (years)	18-30	3.73	3.52	1.84	1.52
	31-40	2.94	2.97	2.48	2.22
	41-50	2.96	2.89	2.61	2.08
	>50	2.97	2.64	2.58	2.57
	F-value	0.93	0.88	1.05	1.58
	p-value	0.56	0.59	0.5	0.31
Marital status	Married	3.1	3.05	2.27	2.08
	Separated	2.72	2.43	2.9	2.37
	Single	2.64	2.71	2.84	2.33
	F-value	1.44	2.09	4	0.69
	p-value	0.31	0.19	0.08	0.59
Socio economic status	I	2.71	3.3	2.6	2.13
	II	3.18	3.05	2.19	2.12
	III	2.97	2.97	2.51	2.1
	IV	2.99	2.6	2.56	2.4
	V	2.96	2.86	2.44	2.12
	F-value	0.26	0.7	0.37	0.35
	p value	0.57	0.71	0.33	0.36

Table 4: Association of clinical profile with URICA scale stages of change

Factors		Pre-contemplation	Contemplation	Action	Maintenance
Presentation	Came own	2.85	2.94	2.45	1.99
	Brought by his relatives/social worker/referral agencies	2.97	1.02	2.49	2.04
	t test	0.19	1.29	0.24	0.13
	p-value	0.81	0.22	0.73	0.80
Reason to start	Alone	2.99	3.01	2.12	2.35
	Peer Group	2.97	2.88	2.46	2.15
	Forcibly Offered	2.64	2.64	3.11	2.05
	F-value	0.23	1.04	1.25	0.29
	p-value	0.72	0.28	0.23	0.65
Duration of increased intake	<1	2.74	2.96	2.54	1.91
	1-2	2.74	2.67	2.34	2.39
	3-5	3.18	2.77	2.21	1.83
	>5	2.6	2.8	2.51	2.27
	F-value	1.6	0.09	0.59	1.37
	p-value	0.8	0.89	0.55	0.17
Binge	Present	2.78	2.79	2.57	2.42
	Absent	3.04	2.93	2.45	2.11
	t test	0.97	0.54	0.55	1.22
	p-value	0.44	0.7	0.69	0.32
Drinking style	Solitary	2.54	2.75	2.55	2.45
	With Others	2.94	2.79	2.41	2.12
	Both	3.02	3.25	2.25	1.69
	F-value	0.52	0.55	0.19	1.02
	p-value	0.59	0.57	0.82	0.36
Intoxication during work hours	Present	3.16	3.14	1.98	1.71
	Absent	2.83	2.74	2.42	2.11
	t test	1	0.87	1.52	1.1
	p-value	0.27	0.27	0.1	0.2
Frequent Job Changes	Present	2.89	2.87	2.46	2.28
	Absent	2.98	2.85	2.42	2.04
	t test	0.41	0.12	0.22	1.09
	p-value	0.73	0.95	0.87	0.32
Family History	Present	2.99	2.98	2.51	1.93
	Absent	2.86	2.77	2.39	2.29
	t test	0.36	0.70	0.46	1.63
	p-value	0.73	0.47	0.61	0.10
Precipitating factors	Present	2.83	2.74	2.47	2.19
	Absent	2.98	2.93	2.35	2.04
	t test	0.41	0.91	0.57	0.63
	p-value	0.64	0.59	0.56	0.52

Table 5: Manner of presentation in relation with quantity of alcohol consumed per day at present, drinking style and pattern of consumption

Variables	Come on his own (8)		Brought by his relatives/social worker/referral agencies (22)	
	N	%	N	%
Quantity of alcohol consumed at present				
<60 ml	0	0	0	0
60-100	1	12.5	2	9.09
>100-200 ml	3	37.5	4	18.18
>200 ml	4	50	16	72.73
Chi square	7.48			
p value	0.02*			
Drinking style				
Solitary	4	50	14	63.64
With others	1	12.5	3	13.64
Both	3	37.5	5	22.73
Chi square	4.12			
p value	0.21			
Binge				
Present	2	25	18	81.82
Absent	6	75	4	18.18
Chi square	7.57			
p value	0.01*			

*: statistically significant

Most subjects(93.33%) in current study have audit score of >15 putting them at a serious risk for alcohol abuse and addiction while only a few (6.67%) scored between 8-10 putting them at some risk and none scored below 8. Almost half the subjects (46.67%) had aware score between 71-100 and 40% scored between 101-130 while very few (6.67%) scored above 130.Approximately one third subjects (36.67%) were in contemplation stage,33% in pre-contemplation stage, 16.67% in maintenance and 13.33% in action stage (table 2).

Table 3 shows the comparison of various age groups in relation to URICA scale reveals that the mean pre-contemplation and contemplation scores were highest in the age group of 18-30 year old participants (Pre Contemplation score=3.73 and Contemplation score=3.52), the mean action score was highest in the age group of 41-50 years (2.61) and the mean maintenance score was the highest in the age group >50 years (2.57). Stage wise analysis across the marital status variables shows that the mean pre-contemplation score and mean contemplation score was highest in the married category. However the mean action and maintenance score was highest in the separated category. Analyzing the mean scores across the socio-economic classes it is evident that socio-economic status category II had the highest pre-contemplation mean score (3.18). In the contemplation and action stage, category I had the highest mean scores (3.3 and 2.6 respectively).In the maintenance stage, the category IV had the highest mean score (2.40).

Table 4 shows the comparison of manner of presentation of subjects i.e. came by themselves or brought by others revealed pre-contemplation scores were higher in the group of participants brought by others(2.97).The mean contemplation however, was greater in subjects who came on their own (2.94).Comparing the stages of change with reason to start, duration of increased intake, pattern of consumption, intoxication during work hours , history of frequent job changes, family history of alcohol abuse and presence of precipitating factors revealed statistically insignificant results (p>0.05).

Statistically significant correlation between subjects brought by others and increasing quantities of per day consumption were noted (p=0.02). Binge pattern of consumption was found more in subjects brought by others and this relationship was statistically significant (p=0.01) as shown in table 5.

DISCUSSION

The present study was done to assess motivation to quit and abstain from alcohol and factors affecting relapse in 30 alcoholic (alcohol dependent) in and outpatients attending the psychiatry department of a tertiary care hospital in Western UP.

All the 30 subjects were males in the current study. Similarly a study conducted by Pandey et al found only male participants. Korlakuntaet al [15] revealed 94.7% of men and 5.3% of women in their study. The National Family Health Survey conducted by the Ministry of Health and Welfare of India in 2014-2015 reported prevalence of alcohol consumption being 29% among men and 1 percent among women. As our hospitals catchment area is mostly comprised of rural population, it is likely that even if possible female alcohol consumption is prevalent in the area due to the stigma attached, they are unlikely to seek formal treatment, hence patients presenting for de-addiction are predominantly male. [16,17]

In the present study, mean age of the participants was 39.27±7.40 years. The age wise distribution shows that maximum participants were from the age group of 41-50 years (46.67%) followed by 31-40 year age group (43.33%). Approximately similar results were reported by Pandey et al[14] who noted in his study that majority of patients were in the age group of 31 to 50 years (76%) with a mean age of 42.64 years. Trivedi et al [18] in a study in rural

population of Uttar Pradesh found maximum alcohol abusers seeking medical help were in the age group of above 30 years (51.43%) with a mean age of 37.20 years. Korlakuntaet al [15] 2014 stated that majority of the sample belonged to middle age group, which is similar to findings of the current study. Sharma et al [19] in contrast found majority (56.7%) of substance abusers were in age group of 18-30 years.

We used URICA scale in our study to access various stages of change achieved by our subjects and found 33.33% were at pre-contemplation,36.67% at contemplation, 13.33% action and 16.67% in maintenance stage respectively. D'Souza et al [7] found that on presentation 60% of the patients were in pre contemplation stage, 38% in contemplation and 2% in action stage. Pandey et al [8] found majority of the participants were in pre- contemplation (35%) and contemplation stages (32%). One can probably assume that given low percentage of subjects in action and maintenance stages, most patients presenting for de-addiction do not share high levels of motivation to change.

Age wise correlation showed that the mean precontemplation and contemplation scores were high in younger age groups while action and maintenance scores were higher in older age groups. Hence it can be said that the factor of age did not affect stages of motivation. Similar results were reported by Pandey et al [8] in their study.

Multiple factor analysis shows that manner of presentation, age of onset, reason to start, duration of increased intake, drinking pattern, drinking style and reason to restart do not appear to significantly affect the stages of change($p>0.05$).Factors such as presence of intoxication during work hours and frequent job changes also did not affect motivation. Although, family history of alcoholism has been described in literature to affect various aspects related to alcohol dependence including clinical profile, relapse, and severity of alcohol related complications, in this study it was found to have no significant effect on motivation ($p>0.05$). These findings were in accordance with the study done by Pandey et al. [8]

Correlation between manner of presentation i.e. came by himself or brought by others and quantity of alcohol consumed by subjects at present was statistically significant (p value =0.02) showing that patients brought by others consumed significantly higher quantities of alcohol as compared to those who came by themselves. It can be possibly deduced that subjects consistently consuming larger quantities lacked insight and motivation to seek treatment as compared to those consuming smaller quantities and hence had to be externally motivated.

Association between manner of presentation i.e. came by himself or brought by others and pattern of alcohol consumption was statistically significant (p value=0.01) showing that probably patients brought by others had a much higher propensity for binge drinking patterns as compared to those who came by themselves. This again possibly reiterates the previous deduction that patients consuming larger quantities of alcohol in short durations of time often lack insight and motivation to seek treatment and hence require external motivation in the form of family relatives or interventions by others.

The present study had certain limitations like small sample size and its cross-sectional design. The relation of motivation levels to treatment and outcome was not assessed in this study. Separate research on these topics could be very useful in dealing with alcohol dependent subjects.

CONCLUSION

Most substance abuse treatment programs and self-help initiatives are designed to assist patients who are motivated and address their problems. However, people who are not ready to change or who are in the early stages of change are also admitted into these

programs. Therefore, most clinicians need to know how to handle poorly motivated or ambivalent patients. Few of the studies have attempted to do a comprehensive assessment with semi structured tools including Alcohol Use Disorder Identification Scale, the Advanced Warning of Relapse Questionnaire and the University Of Rhode Island Change Assessment Scale. Hence the present study had tried to fill this void.

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How to cite this article: Sandhu M, Choudhary S, Kumar V. A cross sectional study on motivation to quit and abstain from alcohol and factors affecting relapse in alcohol use disorders. International Journal of Research and Review. 2019; 6(12):442-448.

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