

Original Research Article

Factors influencing motivation in alcohol dependence syndrome patients in a tertiary care hospital of Assam

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ABSTRACT

Background: The aim of this study is to study the change in motivation in patients with alcohol dependence syndrome (ADS). Design: 50 consecutive patients admitted for the treatment of ADS in a tertiary care hospital were evaluated. It was a cross sectional observational study.

Methods: The study was done in a tertiary care hospital in the in-patient department of psychiatry. Structured performa for sociodemographic details. Psychiatric morbidity was assessed by structured clinical interview according to ICD10. SAD-Q (severity of alcohol dependence questionnaire) to assess severity of alcohol dependence. The assessment of motivation was done using the University of Rhode Island change assessment scale at baseline and after 10 days of admission. Data was evaluated keeping the aims and objectives in mind with appropriate statistical method using Statistical package social software (SPSS) version 21 and descriptive statistics was used. Chi square and Fisher exact test were used to assess the significance.

Results: A total 64% were in pre-contemplation, 30% in contemplation and 6% were in action stage of motivation at baseline assessment. A significant change was seen in the levels of motivation towards contemplation and action stage after a brief hospital stay of 10 days. Motivation to change had a significant association with education and severity of alcohol dependence.

Conclusions: Pharmacological and non-pharmacological treatment during a short hospital stay results in improvement in readiness for change in patients of alcohol dependence syndrome.

Keywords: Alcohol dependence syndrome, Family therapy, Motivation, Precontemplation, Psychoeducation

INTRODUCTION

Alcohol is one among the leading causes of death and disability globally. About two billion people worldwide consume alcoholic beverages and one-third (nearly 76.3 million) is likely to have one or more diagnosable alcohol use disorders.¹

India being a pluralistic country and housing the second largest population within the world presents an outsized caseload of substance users because of sheer numbers. Substances of use, especially alcohol has shown increasing production and consumption indices in India with the onset of drinking occurring at much younger age.^{2,3}

Motivation and readiness for change are critical concepts that represent complex, dynamic elements that extend throughout the process of stopping or modifying excessive drinking and other addictive behaviors.^{4,5} In recent years, discussion of motivation has been dominated by the stages of change, or trans theoretical model (TTM).^{6,8} This has been extremely influential in theoretical formulations of addiction disorders, as well as in the design and provision of addiction treatment interventions.⁹ The TTM proposed five stages to describe the process of changing problematic health behavior: pre-contemplation, contemplation, preparation, action, and maintenance. Pretreatment stage of motivation has been correlated with the type of intervention and its outcome in the treatment of alcohol

dependence and is known to influence the patient to seek and opt for treatment and as make successful long-term changes.¹⁰⁻¹²

There is no study available of the nature of present study in this part of the country, so we felt the need for such a study to better understand the factors important for our population.

METHODS

We carried out the study in the Department of Psychiatry of a tertiary hospital of Assam. It was carried out between February 2019 to January 2020 after due approval from the Ethical committee of the institution.

Inclusion criteria

Male patients aged between 18-65 years with Alcohol dependent syndrome diagnosed according to ICD-10 and patient giving consent were included in this study.

Exclusion criteria

Patients were excluded from the study based on the following criteria: patient having other substance use disorder and patient with comorbid psychiatric illness.

Materials used

Materials used in the study were as follows: structured performa for sociodemographic data of the patient, clinical proforma to assess the clinical features of the patients, psychiatric morbidity was assessed by structured clinical interview according to ICD10, SADQ (severity of alcohol dependence questionnaire) which is a 20-item questionnaire where the patients respond regarding the pattern of their alcohol use and related problems they face. A score of more than 30 is considered Severe dependence, between 16-30 is moderate dependence and below 16 is considered mild dependence. The total possible score is 60, URICA (University of Rhode Island Change assessment) Scale. The URICA is a 32-item self-report measure that includes 4 subscales measuring the stages of change: precontemplation, contemplation, action, and maintenance. Responses are given on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement).

A total of 50 patients fulfilling the inclusion and exclusion criteria were selected via consecutive serial sampling method. The patients were briefed about the nature of study and informed consent was taken. The sociodemographic and clinical profile were obtained by using the materials mentioned above. The motivation to change was assessed by applying URICA scale on 2 occasion. We waited for the patient to get stabilized and withdrawal symptoms to subside, after which the 1st URICA was applied and considered as baseline. The next URICA was applied after 10 days of inpatient stay. During

the stay the patients underwent motivation enhancement therapy and were taught relaxation techniques. Data was evaluated keeping the aims and objectives in mind with appropriate statistical method using Statistical package for social sciences (SPSS) version 21 and descriptive statistics was used. Chi square and Fisher Exact test were used to assess the significance. Significance level was set at 0.05.

RESULTS

Majority of the patient were in the age group 30-39 years with 42%, followed by 28% in 40-49 years' age group and 24% were 50 years or above. Only 6% were in the 20-29 years' age group. 88% were married. 94% were Hindu by religion and 6% were Muslims. 24% of the patient studied up to primary school, 28% were high school educated and 8% were graduates. About 18% were illiterate. Most of the patient belonged to lower middle-class family with 52%, followed by upper middle class with 24% and 24% belonging to lower class family. 56% lived in a nuclear family and all of the patients were employed prior to admission.

Table1: Frequency distribution of Sociodemographic variables.

Variables	Frequency (%)
Age (in years)	20-29 3 (6.0)
	30-39 21 (42)
	40-49 14 (28)
	50 years or more 12 (24)
Education	Illiterate 9 (18)
	Primary school 12 (24)
	High school 14 (28)
	Higher secondary school 11 (22)
	Graduate 4 (8)
Occupation	Unskilled labour 17 (34)
	Skilled labour 11 (22)
	Self employed 16 (32)
	Government job 6 (12)
Socioeconomic status	Lower 12 (24)
	Lower middle 26 (52)
	Upper middle 12 (24)
	Upper 0 (0)
Type of family	Nuclear 28 (56)
	Joint 22 (44)

Among the studied group, 46% of the patient had a duration of alcohol use more than 15 years, 26% of them had been using for 10-14 years, 22% were using for 5-9 years duration and 6% were recent user with less than 5years of alcohol use. Majority of them i.e. 86% consumed alcohol on regular basis and 14% giving history of binge drinking. Most of the patient had started alcohol consumption at an early age i.e. before 29 years and later became addicted with 54% having moderate dependence

followed by 38% having severe dependence and 8% having mild alcohol dependence.

Table 2: Frequency table of clinical variables.

	Frequency	
Duration of alcohol use	<5 years	3 (6)
	5-9 years	11 (22)
	10-14 years	13 (26)
	15 years or more	23 (46)
Neurological disease	Present	21 (42)
	Absent	29 (58)
SADQ	Mild	4 (8)
	Moderate	27 (54)
	Severe	19 (38)

Table 3: Frequency distribution of stages of Motivation as assessed by URICA.

Variables	URICA1	URICA2
Precontemplation	32 (64)	14 (28)
Contemplation	15 (30)	24 (48)
Action	3 (6)	12 (24)
Maintenance	0	0

42% of the patients reported having symptoms of neurological symptoms like pain, burning and tingling sensation, loss of consciousness, memory impairment etc., while 58% did not have such problems.

URICA scale applied for assessment of motivation revealed that 64% patient were in the pre-contemplation stage, 30% in contemplation and only 6% in action stage of motivation at 1st assessment, considered as pretreatment status. At 2nd assessment 28% were in pre-contemplation, 48% in contemplation and 24% in action stage of motivation, implying significant improvement in the stage of motivation after a brief hospital stay. A significant association was found between education and level of motivation at baseline. Also, severity of alcohol dependence correlated strongly with motivation to change at baseline. However, age occupation, socioeconomic status, type of family, duration of illness and presence of neurological disease were found to have no significant association with motivation to change.

At 2nd assessment only education of the patient was found to have association with the motivation to change and its maintenance. All other sociodemographic factors and clinical variables had no effect on the change of level of motivation and its maintenance.

DISCUSSION

The study was carried out keeping in view the lack of such studies in this part of the country. The patients were treated under the supervision of a Senior psychiatrist. Two close relatives were allowed to attend to the patient during the hospital stay. The patients were treated with both

pharmacological as well as non-pharmacological methods. Non-pharmacological methods included individual psychotherapy, family psychoeducation and Motivational Enhancement Therapy. The patients were also taught relaxation techniques and were encouraged to practice them regularly. The patients were assessed for motivation on 2 occasions, separated by 10 days of hospital stay to evaluate the readiness for change.

The findings of our study in regard to readiness for change were similar to the study done by D'Souza et al whereby we found significant change in the stage of motivation from pre-contemplation to contemplation to action stage.¹³ Even after a short duration of 10 days of hospital stay, motivation level for change showed improvement compared to baseline pretreatment level. Rumpf HJ et al had reported that motivation to change was greater in alcohol dependent person in the general hospital as compared to general population.¹⁴ The present study showed that treatment as an inpatient even for few days leads to improvement of motivation level in patient of alcohol dependent syndrome. This change may be attributed to few obvious factors like unavailability of alcohol in hospital, lack of cues and alleviation of withdrawal suffering by pharmacotherapy. Additionally, psychotherapy and Motivation Enhancement Therapy by trained persons also influences the readiness for change. Moreover, along with the patient, family psychoeducation has a supportive role in maintenance of motivation.

We found that the education of the patient is strongly correlated with the stage of motivation at baseline as well as the readiness to change. Higher the educational qualification, higher the motivation. It is understood that a better education level makes a person amenable to better understanding of the illness, its course and treatment options available. Also, higher education contributes to the effectiveness of psychotherapy and motivation enhancement therapy, thus the rationale of our finding.

Other sociodemographic factors like age, occupation, socioeconomic status and type of family had no association with the level of motivation in the pretreatment period, which is in contrast to previous studies like that of Malbergier et al and D'souza et al.^{13,15} This may be due to the difference in the sample size between these studies.

No association was found in our study between the presence of neurological comorbidities due to alcohol, with motivation level at baseline. This is in contrast to the findings of Forsberg et al and Lau et al.^{16,17} This may be due to the difference in the socioeconomic status, educational level, family dynamics between our study group and the above-mentioned studies. This difference is a cause of lower understanding and realization of the adverse consequences of the illness in the pretreatment period.

The severity of alcohol dependence affects the level of motivation at baseline. The patients with moderate and

severe alcohol dependence have higher motivation according to our study, which agrees with few previous studies.¹⁸⁻²⁰ Barnett et al however found that mild alcohol dependence predicted higher intention for change.²¹ The denial of patient with mild alcohol dependence that problem exists may explain the lower motivation in our group. Also, patient with mild alcohol dependence, due to

lower socioeconomic condition may not find it feasible to continue to seek help and treatment resulting in our finding. Targeting such patients in the community itself to impart psychoeducation and Motivation enhancement lessons will have a positive effect in the overall outcome in treatment of alcohol dependence and related disorders.

Table 4: Association of variables with URICA score.

Variables		URICA (at baseline)				P-value
		Precontemplation	Contemplation	Action	Maintenance	
Age (in years)	20-29	3	0	0	0	0.085
	30-39	11	10	0	0	
	40-49	10	3	1	0	
	50 years or more	8	2	2	0	
Education	Illiterate	5	2	2	0	0.018
	Primary school	8	3	1	0	
	High school	6	4	0	0	
	Higher secondary	7	4	0	0	
	Graduate	4	0	0	0	
Occupation	Unskilled labour	12	3	2	0	0.061
	Skilled labour	7	4	0	0	
	Self employed	8	7	1	0	
	Government job	5	1	0	0	
Socioeconomic status	Lower	7	3	2	0	0.106
	Lower middle	18	7	1	0	
	Upper middle	7	5	0	0	
	Upper	0	0	0	0	
Type of family	Nuclear	20	7	1	0	0.082
	Joint	12	8	2	0	
Duration of alcohol use	<5 years	2	1	0	0	0.094
	5-9 years	6	5	0	0	
	10-14 years	8	4	1	0	
	15 years or more	16	5	2	0	
Neurological disease	Present	13	6	2	0	0.158
	Absent	19	9	1	0	
SADQ	Mild	3	1	0	0	0.010
	Moderate	14	11	2	0	
	Severe	15	3	1	0	

In our study we found no association between the duration of alcohol use and level of motivation which corroborates the findings of previous studies.

Most of the patients in our study group were brought by family members with patient in withdrawal state. After admission, the 1st URICA was administered as baseline. Initially 64% were in pre-contemplation, 30% in contemplation and 6% were in action stage of motivation. A 2nd URICA was administered to observe change in motivation level after 10 days of medical intervention as an inpatient. At 2nd assessment, only 28% were in pre-contemplation, 48% in contemplation and 24% had

reached action stage of motivation. The study thus corroborates the finding of previous studies that treatment of patient of alcohol dependence syndrome, as an inpatient in a hospital has a significant positive effect for motivation to change. Education and severity of alcohol dependence has a significant association with the motivation at baseline. However, after the hospital stay only level of education has a strong association with the level of motivation and its maintenance.

A small sample size and relatively homogenous group of patients pertaining to a specific region and selection of patient who came to seek treatment in the tertiary care

center, are few of the limitations of the study. The assessment of the patient was not free from bias because of the nature of the scales used. To be able to generalize the results, further studies involving larger sample, from different regions and blind approach, can be conducted to explore the motivation to change and treatment outcomes.

CONCLUSION

The management of an alcohol dependent patient as an inpatient in a hospital with arrangements for pharmacotherapy as well as imparting of psychoeducation and motivation enhancement therapy results in definite improvement in the motivation to change in the patients. Moreover, education level of the patient and severity of the dependence affects the help seeking behavior of the patient and also, education affects the outcome of the intervention. However, keeping in view, the small sample size and limited geographical area of the study involved, further studies must be conducted in this regard in different settings to better generalize the results.

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