



Relationship between Socio-Demographic Variables and Motivation for Change among Alcohol Dependence Syndrome Inpatients

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ABSTRACT

In a year India's annual alcohol intake increased by 38% from 4.3 to 5.9 per liters between 2010 and 2017, total volume of alcohol consumed globally per year has risen by 70% since 1990. The aim of the study was to investigate the relationships among various socio-demographic variables with motivation for change among alcohol dependence syndrome inpatients. **Methods:** subjects included in the study are 60 male in patients who are assessed with the ADS scale and URICA scale and also, socio-demographic information about the inpatients has been taken. **Results:** There is a significant relationship between some demographic subscales with alcohol dependence syndrome and motivation for change. Also, it is found that patients with a past history of hospitalization for alcoholism have significant relationships. The Alcohol dependence syndrome level is lower to moderate such as level-II to level-III, as well as the motivation for change level is higher in inpatients score 8-11 respectfully. **Conclusion:** Patients with severe alcohol dependence syndrome are better motivators even though this is not statistically significant. Hence it would be right to say that motivation enhancement therapy should be initiated while the patients are still admitted indoors for de-addiction.

Introduction

Alcohol misuse is a serious problem. It is a pattern of drinking too much alcohol. It interferes with daily life. It is also a big problem to harm relationships and unable to function at work and in other areas of human life. Alcohol misuse during adolescence greatly increases the risk of developing an alcohol use disorder in adulthood due to changes in neurocircuitry that alcohol misuse causes in the vulnerable adolescent brain.

According to the TU Dresden researcher published in the

Lancet Journal the study of 189 countries alcohol intake between 1990 to 2017 is that "India's annual alcohol intake increased by 38% from 4.3 to 5.9 liters per adult per year between 2010 and 2017, total volume of alcohol consumed globally per year has risen by 70% since 1990". Alcohol is the most commonly used psychoactive substance leading to significant disability and death globally. Alcohol contributes to nearly 3.2% of all deaths and 4% of total disability-adjusted life years globally [1]. In India, the National Household Survey of drug use showed the prevalence of 21.4% for alcohol use and about 4% for alcohol dependence [2].

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Motivation refers to the driving force that results in behaviour directed toward particular goals. The process of motivation to change also referred to as readiness to change can be conceptualized as a differentiated personal pathway that individuals traverse to modify or stop a habitual pattern of behaviour [3]. According to the [4] in terms of liquor consumption in national average, 4.9% males and 0.5% females under the age between 15 and 29 years were consuming liquor and 13.6 percent males and 0.7 percent females in the age group between 30 and 44 years were liquor consumers in the country. While 14.3 percent males and 0.9 percent females at the age group of 45-59 years were consuming alcohol, 10.8 percent males and 1.1 percent females above the 60 age group were consuming alcohol in the country. As per the report, among the age group between 15 and 29 years, 8.5 percent males and 0.9 percent females were consuming alcohol in Odisha. In the State, 19.1% males and 0.9 percent females in the age group of 30-44 years were alcohol consumers. Similarly, 18.9 percent males and 1.5 percent females in the age group between 45 and 59, 12.2 percent males and 1.3 percent females above 60 years were consuming alcohol in the State. The percentage in Odisha is higher than the States like Gujarat, Rajasthan, and Bihar.

Objectives

- Assess the relationship among various socio-demographic variables with motivation for change among alcohol dependence syndrome inpatients.
- Explore the level of motivation for change and severity of alcohol dependence syndrome inpatients.

Hypothesis

- There will be significant and positive correlation of various socio-demographic variables with alcohol dependence syndrome and motivation for change among inpatients.
- Lower the level of severity of alcohol dependence syndrome will lower the range of motivation for change among inpatients.

Rationale

From the review of literature given above relating to studies on the relationships between alcohol dependence and level of motivation among post-traumatic stress patients in de-addiction centers, it may be the same that several studies have investigated different aspects of these variables in post-traumatic stress patients. Present study has been addressing the relationships of motivation in an effort to identify how these risk factors or behavior varies by patients. Now a day's alcohol addiction has become a highlighted syndrome. Therefore, alcohol dependence and level of motivation that might be associated with each other frequently made a topic for research. Though the motivation among these variables has been studied for other patients, lack of studies for motivational factors is found within the literature. It is necessary to evaluate alcohol dependence and level of motivation particularly on

patients of the rehabilitation center. In this context, the research is conducted on patients of de-addiction centers. Aim of this study was to explore motivation for change in inpatients with alcohol dependence syndrome (ADS) and to evaluate the relationship between motivation and certain socio-demographic along with clinical variables in an attempt to facilitate a better understanding of this dynamic process.

Methodology

Participants

The present study samples consisted of 60 consecutive patients admitted for the treatment of alcohol dependence syndrome in a de-addiction center selected for the data collection. Age mean and the standard deviation ($M=34.10$, $SD=12.17$) for total samples. This is a cross-sectional study. Data collection started from different rehabilitation centers of Odisha state.

Inclusion Criteria:

- Age of the participants between 18-65 years
- Participants out of severe and withdrawal states
- Only male participants are included
- Participants who gave consent for the study
- Participants who could understand Odia, and Hindi to communicate.

Exclusion Criteria:

- Participants who disagree with the study.
- Participants with comorbid Cannabis or opioid dependence.
- Participants who had severe visual or auditory impairment.

Measures

Socio-demographic Proforma: It is included with name, age, gender, education, employment status, current living status, income, previous history of treatment status for alcohol misuse, and hospitalisation for treatment of alcohol misuse.

ADS Scale: ADS is originally determined by [5]. ADS has 25 items that are scored on a 2-point item scale (0 or 1), 16 scored on a 3-point item scale (0, 1, 2), and 3 scored on a 4-point item scale (0, 1, 2, or 3). Internal consistency reliability was estimated with Cronbach's alpha coefficient of 0.86. The ADS was significantly related to other measures of severity of dependence, craving for and preoccupation with drinking, temptation to drink and confidence in the ability to not drink in high-risk relapse situations, heavy and sustained drinking patterns, concerns about negative alcohol-related consequences, and awareness of problematic drinking.

URICA Scale: The University of Rhode Island Change Assessment Scale (URICA) is a 32-item, self-report inventory yielding four summary scores assessing participants' attitudes on the pre-contemplation, contemplation, action, and maintenance stages of

change originally proposed by [6-9]. There are eight Likert-type items per stage or subscale, each ranging from 1 to 5, with higher scores indicating greater endorsement of particular attitudes or behaviors. The subscales can be combined arithmetically ($C + A + M - PC$) to yield a second-order continuous readiness to change score that can be used to assess readiness to change at entrance to treatment. The intraclass correlation coefficient for measuring motivation at the beginning and end of sessions was 0.96.

Procedure

Prior to data collection the investigator has obtained common permission from conserved authorities of de-addiction centers for this procedure have explained to each psychologists, counselors as well as to participants individually with comfort and privacy is taken into consideration. Every participants, regularly

accompanying diagnosed as having ADS (Alcohol Dependence Syndrome) as per the DSM-V criteria and on regular follow up inpatients centers of different de-addiction centers of Odisha state, for the past 8-6 months and on medication, were asked to give written consent to participate in the study. The participants are selected according to the inclusion and exclusion criteria. It is being conducted by open-ended interviews with structured questionnaire responses that have been carefully recorded.

Data Analysis

In order to present information in additional intelligible and interpreted form, Statistical Package for social science (SPSS) Version 22 is used. Descriptive statistics like percentage mean and variance were conjointly used. Data has also been calculated using Pearson's coefficient correlation.

Results

Table 1: Socio-demographic variables and different parameters of alcohol dependence syndrome inpatients (N=60).

Variables	N	Percentage
Age		
18-35	35	58.3%
36-45	13	21.7%
46-55	08	13.3%
56-65	04	6.7%
Education		
Illiterate	04	6.7%
Primary to 10th	23	38.3%
12th to Graduation	29	48.3%
PG	04	6.7%
Marital Status		
Unmarried	19	31.7%
Married	8	13.3%
Divorced	3	5%
Separated due to Alcohol	30	50%
Employment Status		
Full Time Employed	36	60%
Part Time Employed	19	31.7%
Unemployed	4	6.7%
Student	1	1.7%
Current Living Status		
Joint Family	31	51.7%
Nuclear Family	23	38.3%
Alone	6	10%
Monthly Income		
0.25,000	42	70%
25,000-50,000	11	18.3%
50,000-75,000	07	11.7%
Concurrent Psychiatric Illness		
YES	7	11.7%
NO	53	88.3%

Concurrent Medical Illness		
YES	21	35%
NO	39	65%
Previous Treatment of Alcohol Misuse		
Have taken treatment	19	31.7%
Have not taken treatment	41	68.3%
Ever Hospitalized For Treatment of Alcohol Misuse		
YES	9	15%
NO	51	85%

Table 1:

The present investigation is a descriptive clinical study, carried out on 60 consecutive male patients admitted for the treatment of Alcohol Dependence Syndrome in a de-addiction unit for receiving pharmacotherapy along with group discussions, education about effects of alcohol, family meetings, and individual therapy whenever required. Assessing and measuring a patient's motivation to change has been of great interest to therapists and researchers in a variety of fields.

Age: In the present study, 60 inpatients between the ages of 18 to 65 years old (SD = 12.17). The mean age of patients is 34.10. Similarly, the age group uses alcohol 18-35 (58.3%), 36-45 (21.7%), 46-55 (13.3%), and 56-65 (6.7%). The higher to lower rate of alcohol uses in the age groups are 18-35 and followed by 36-45 years old. In the same way [10] found out that 92% of the patients had initiated alcohol use below 25 years of age. A majority of patients had late onset of alcohol dependence, i.e., onset of dependence after the age of 25 years (70%).

Education: Alcohol drinking most of the illiterate have 6.67% primary to secondary 38.3%, higher secondary to graduation 48.3% and PG 6.67% have used alcohol. In this study report shows, more educated people have used alcohol. D'Souza, PC and Mathai PJ [10] found that 34% had high school education, while only 4% were illiterate.

Marital Status: In the present study unmarried participants of alcohol dependence syndrome are 31.7%, married 13.3%, divorced 5% whereas 50% are separated due to drug misuse. Similarly the findings of [10] reported that 62% of the patients were being married.

Employment Status: The analysis in this paper shows men who are full time employed 60%, part time employed 31.7% unemployed 6.7%, student 1%. Findings of [10] suggested from their study 99% were employed before admission to the de-addiction facility.

Current Living Familial Status: With more than half of all alcohol users in India they have faced many problems and family

problems in their lifespan. The category of family in the joint family alcohol misuse rate is 51.7%, whereas nuclear family is 38.3%, and alone is 10%.

Monthly Income: In the present study less than 25000 monthly income people use alcohol is 70%, 25000-50000 use alcohol percentage is 18.3%, and 50000-75000 people use 11.7%. Findings of [10] in support of the present study, suggested most of the patients had a monthly income between 5000 and 10,000 Indian rupees (39%).

Different parameters of alcohol dependence syndrome:

Concurrent Psychiatric Illness: In the present study inpatients of alcohol dependence syndrome and their other concurrent psychiatric illness rates response Yes are 11.7% whereas No is 88.3%. It means most of the alcohol dependence syndrome inpatients have no current psychiatric illness.

Concurrent Medical Illness: In the present study inpatients of alcohol dependence syndrome and their other concurrent medical illness rates response Yes are 35% whereas No is 65%. It means here also, most of the alcohol dependence syndrome inpatients have no current medical illness.

History of Treatment: it shows that 31.7% of people have medical history related to drug addiction and other health related problems and 68.3% have not any medical health issues related to illegal drug use before habituated drinking and also have not admitted in their past due to addiction at de-addiction center.

Ever Hospitalized For Treatment of Alcohol Abuse: The present study indicates that patients who sought treatment willingly have higher levels of motivation compared to those admitted by family or others, and their high level of motivation has sustained till the end of treatment. This implies that motivating patients to seek treatment willingly before admission may promote better outcomes than forcible admissions. Our findings suggest a role of the family in providing an initial momentum to motivate the unwilling patient to seek treatment.

Table 2: Correlation between Socio-demographic variables and of alcohol dependence syndrome inpatients and motivation for change (N=60).

Variables	Mean	SD	Age	Edu	Ms	Ce	Mi	Cls	Cmi	Cpi	Pta	Hosp	Ads
Age	34.10	12.17	1										
Education	2.55	.72	.26*	1									
Marital Status	2.92	1.17	.15	-.09	1								
Current Employment	1.50	.70	-.22	.05	-.13	1							
Monthly Income	1.42	.69	.27*	.31*	.15	-.19	1						
Current Living Status	1.58	.67	-.06	.27*	-.02	-.13	0.5	1					
CMI	1.65	.48	-.24	.17	-	.03	.04	.01	1				
CPI	1.68	.47	-.09	-.23	.14 .26*	.03	.10	-.21	.18	1			
Previous Treatment of Alcohol Misuse	1.85	.36	-.11	-.07	.09	-.17	.12	.16	.38**	.32*	1		
Ever Hospitalized For Treatment of Alcohol	1.88	.32	.03	-.01	.15	-.04	.14	-.07	.06	-.14	.14	1	
Misuse Alcohol Dependence Syndrome	18.47	8.60	-.09	-.28*	-.09	-.12	-.04	-.08	-.21	-.29*	-.05	-.05	1
URICA (Motivation)	8.41	1.51	.022	.176	-.19	-.21	.00	-.07	.25	-.02	.35**	.12	.13

Table 2:

The above table abbreviation stands for ads (alcohol dependence syndrome), urica, (motivation for change), edu (education), ms (marital status), ce (current employment), cls (current living status), mi (monthly income), cpi (concurrent psychiatric illness), mci (concurrent medical illness), pt (previous treatment of alcohol misuse) and hosp (ever hospitalized for treatment of alcohol misuse). Result indicates insignificant relationship between alcohol dependence syndrome and motivation to change among inpatients ($r = 0.13$). It could be the reason most of the participants are already separated due to alcohol misuse from their partners and they have no

hope to change. Thus, the inpatients are suffering from alcohol dependence syndrome. They have mild interest in motivation to change therefore an insignificant relationship with ADS and URICA is not in the expected direction. It can also be observed that there exists a negative and positive significant relationship between ADS and education as well as previous treatment of alcohol misuse of demographic variables are ($r = -0.28^*$, $p < 0.05$) and ($r = -0.29^*$, $p < 0.05$). Similarly in the part of motivation for change is highly significant with the demographic variable of ever hospitalized for treatment of alcohol misuse is ($r = 0.35^{**}$, $p < 0.05$) so that significant relationship with socio-demographic variables and motivation for change among alcohol dependence syndrome is partially in the expected direction. Therefore, here the result partially supports the hypothesis “there will be significant and positive correlation of various socio-demographic variables with motivation for change among alcohol dependence syndrome

inpatients” directional hypothesis has proved.

The sample of the present study may not be representative of the general population as the population of this study is a selected group of inpatients. The patients have been recruited by consecutive sampling which eliminates sampling bias, with specific inclusion and exclusion criteria, thus ensuring a homogenous group. In our study, baseline assessment representing motivation level at admission is done 1st week after admission since most patients experienced withdrawal symptoms in the 1st week. However, it may not represent an accurate assessment of motivation level at admission. The relation of motivation levels to treatment outcome is not assessed in this study. This is one of the few studies on motivation levels and associated factors, with substantial sample size and assessment of motivation on in patients of alcohol dependence syndrome.

Table 3: Level of alcohol dependence syndrome among inpatients (N=60).

Levels	ADS Score	N	%
Level I	1-13	17	28.3
Level II	14-21	21	35
Intensive Level III	22-30	17	28.3
Level IV	31-47	5	8.3

Table 3:

In the present study, patients are more falling to suffer from alcohol dependence syndrome level II which is 35% among total participants and moreover in the level of II & III equal percentage of participants are suffering from alcohol dependence syndrome but here in level III which is very intensive to motivate for change. One of the researches of [10] suggested the severity of alcohol dependence was mild in 25%, moderate in 50%, and severe in 25% of the patients.

Table 4: Level of motivation for change among inpatients (N=60).

Levels	URICA Score	N	%
PC-Pre-contemplation	8 or lower	24	40
C-Contemplation	8-11	34	56.7
A-Action	11-14	2	3.3
MMaintenance	14 and above	0	0

Table 4:

It shows that the stages of motivation assessed using the URICA scale most of the participants are under the level of contemplation (score is 8-11) whose value is 56.7% among total participants. It represents participants are aware about their condition and they are

more prone to change their behaviour by themselves as well as help others which are our expected direction. Similarly one of the related studies of [10] suggested from their review that baseline, 60% of the patients were in the PC stage, 38% in contemplation stage, and 2% in action stage. The second assessment showed that 34% of the patients were in the PC stage, 57% in the contemplation stage, and 9% in the action stage.

As per the hypothesis two lower the level of severity of alcohol dependence syndrome will be lower the range of motivation for change among inpatients has been proved and our research hypothesis partially accepted due to the inpatients increasing trends for dependency motivating to change their behaviour.

Conclusion

It can be concluded from the present study that patients with severe alcohol dependence syndrome are better motivated even though this is not statistically significant. Also, it has been found that patients with a past history of hospitalization for alcoholism are better motivator factors for changing their behavior. Hence it would be right to say that motivation enhancement therapy should be initiated while the patients are still admitted indoors for de-addiction.

Conflict of Interest

The Author declares that there is no conflict of interest.

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