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Comparative Assessment of Motivation between Treatment-Naïve and Other Patients in Alcohol Dependence

Dr. Subramanyam M[1], Dr. Aruna G[2]

[1]PG Resident, Department of Psychiatry, Father Muller Medical College, Mangalore, Karnataka, India

[2]Associate Professor, Department of Psychiatry, Father Muller Medical College, Mangalore, Karnataka, India

Abstract: ***Background: Alcohol is one of the major drugs of abuse in India. Life term risk involved in the development of alcohol dependence in Indian men is around 10-15%. Motivation is one of the prime steps towards changing the life style or behavior, which plays a major role in the recovery from alcohol related problems. There exists a variation in the degree of motivation among people who participate or seek treatment for alcohol related problems. Therefore, the need to assess level of motivation in alcohol dependence treatment-naïve and other patients is of a greater significance which can shed light on the importance of motivation in de-addiction management. Aim: To assess the level of motivation in treatment naïve alcohol dependence patients [group-1] and in ADS patients getting professional treatment for second or subsequent time (includes patients who have relapsed) [group-2] and to compare the levels of motivation among these two groups. Methodology: A consecutive sample of 100 patients meeting inclusion and exclusion criteria admitted in family/de-addiction ward were included in the study. Details of Socio-demographic status were enquired into. URICA scale was administered to assess the level of motivation in both the groups, once the patient had completed detoxification treatment and was clinically out of delirium. Results: The assessment of motivation showed a mean URICA score of 8.24 and 8.11 in group 1 and group 2 respectively; with a P value of 0.294 using T-test. There was a difference in level of motivation among treatment naïve and other ADS patients though not statistically significant. Conclusion: The study indirectly implies the role of motivation as one of the important factors in relapse and provides us with an area for enforcing better treatment towards relapse prevention. Hence motivation enhancement should be given utmost importance while considering treatment for de-addiction, even from the first contact with the professional.***

Keywords: Alcohol dependence syndrome, Motivation, URICA scale

1. Introduction

Alcohol is one of the major drugs of abuse in India. Life term risk involved in the development of alcohol dependence in Indian men is around 10-15%.

Motivation acts as a driving force to bring in a change In behavior directed towards particular goal. Motivation to change is a dynamic process wherein an individual traverses through a differentiated personal pathway to change a habitual pattern of behavior[1]. Prochaska and DiClemente's "transtheoretical model" proposed that process of motivation to change consists of five stages; namely, precontemplation, contemplation, preparation, action, and maintenance.

There exists a variation in the degree of motivation among people who participate or seek treatment for alcohol related problems. Along with the motivation, there are others factors which can cause relapse of alcohol dependence in patients[2]. Therefore, the need to assess level of motivation in alcohol dependence treatment-naïve and other patients is of a great significance which shed light on the importance of motivation in de-addiction management.

Our aim was to assess the level of motivation in alcohol dependence patients; treatment naïve [group-1] and patients getting admitted for second or subsequent time(includes patients who have relapsed) [group-2] and to compare the levels of motivation among these two groups. Also a secondary objective to assess socio-demographic variations in both groups, which may affect motivation.

2. Materials and Methods

This study was conducted at department of psychiatry, at a tertiary care center in South India, from May to July 2017. The study was approved by the institutional ethical committee. The study population included all of male patients aged more than 18 years with International Classification of Disease 10th Revision (ICD‑10) Diagnostic Criteria for Research diagnosis of ADS, out of which 100 consecutive patients were selected as the sample for the study. Patients admitted and diagnosed as alcohol dependence according to ICD -10 diagnostic guidelines and had never been on professional treatment till date for ADS was included in to group 1 (treatment naïve); whereas those who have taken treatment in the past and getting admitted second or subsequent time (includes patients who have relapsed) were included into group 2 (relapse group). Patients with other substance use disorders (other than nicotine), current or past co-morbid psychiatric illness and patients not willing to give an informed consent were excluded from the study.

Materials

1) Socio-demographic and clinical variables was recorded in a specific proforma prepared by the authors for this study.
2) Kuppuswamy's socio-economic status scale[3] was used to collect the socio economic data.
3) ICD‑10 AM symptom checklist[4]; Australian modification of the WHO ICD‑10 symptom checklist for mental

disorders was used to screen for the presence of psychiatric disorders.

4) University of Rhode Island Change Assessment (URICA) scale was used to assess motivation in participants. URICA is a 32-item self-report scale developed by McConnaughy et al. in 1983 which includes four 8-item subscales measuring the stages of change: pre-contemplation (PC), contemplation (C), action (A) and maintenance (M)[5].

Procedure

The design and nature of the clinical study was explained and the written informed consent was obtained from all the participants. All participants underwent a thorough clinical examination and required investigations was done to consider and to rule out other psychiatric and medical co-morbidities. Specific proforma for socio demographic and clinical variables and kuppuswamy's scale was administered. URICA scale was administered to assess the level of motivation in both the groups, once the participants completed detoxification treatment and clinically out of delirium. URICA scale was applied by the first author; however, it was translated into the local language by the first author for some of the patients who were not well versed in English.

3. Statistical Analysis

Statistical analysis was done using Statistical Package for Social Sciences (SPSS) V 24.0. Independent students t test was used for URICA score, whereas Chi square test was used for comparison of the categorical variables.

4. Results

This study included 100 participants, all of them were males. Majority of the subjects participated in the study belonged to age group of 31 – 40 years (45%); followed by 32% of participants belonging to age group of 41 – 50 years (table 1). Comparison of the AGE between the two groups showed that age is higher in relapse group (42.04yrs) than treatment naïve group (40.12yrs) with a t value of -1.087 and is statistically non significant with a p value of 0.28 (table 2).

Table 1: Age distribution

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
AGE	18-30	Count	5	5	10
		% within GROUP	10.0%	10.0%	10.0%
	31-40	Count	22	23	45
		% within GROUP	44.0%	46.0%	45.0%
	41-50	Count	18	14	32
		% within GROUP	36.0%	28.0%	32.0%
	51-60	Count	5	5	10
		% within GROUP	10.0%	10.0%	10.0%
	>60	Count	0	3	3
		% within GROUP	0.0%	6.0%	3.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 2: Age comparision between groups

	GROUP	N	Mean	Std. Deviation	t	Df	P VALUE
AGE	TREATMENT NAIVE GROUP	50	40.12	7.753	-1.087	98	0.28
	RELAPSE GROUP	50	42.04	9.796			

76% of participants were Hindus, 19%were Christians and 5% were Muslims (table 3). 50% of them had completed high school; followed by 26% of them who had studied till pre degree (table 4). Majority were labourers among which 44% were unskilled and 40% were skilled labourers (table 5).

Table 3: Religion

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
RELIGION	chrstian	Count	10	9	19
		% within GROUP	20.0%	18.0%	19.0%
	hindu	Count	38	38	76
		% within GROUP	76.0%	76.0%	76.0%
	muslim	Count	2	3	5
		% within GROUP	4.0%	6.0%	5.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 4: Education

Crosstab

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
EDUCATION	Illiterate	Count	0	1	1
		% within GROUP	0.0%	2.0%	1.0%
	Primary school	Count	1	1	2
		% within GROUP	2.0%	2.0%	2.0%
	Middle school	Count	6	5	11
		% within GROUP	12.0%	10.0%	11.0%
	High school	Count	24	26	50
		% within GROUP	48.0%	52.0%	50.0%
	Plus 2/ Pre degree	Count	13	13	26
		% within GROUP	26.0%	26.0%	26.0%
	Degree	Count	5	4	9
		% within GROUP	10.0%	8.0%	9.0%
	Professional degree/Higher education	Count	1	0	1
		% within GROUP	2.0%	0.0%	1.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 5: Occupation

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
OCCUPATION	Unskilled labourer	Count	23	21	44
		% within GROUP	46.0%	42.0%	44.0%
	Skilled labourer	Count	20	20	40
		% within GROUP	40.0%	40.0%	40.0%
	Government employee	Count	1	0	1
		% within GROUP	2.0%	0.0%	1.0%
	Private employee	Count	0	1	1
		% within GROUP	0.0%	2.0%	1.0%
	Self-employment	Count	5	6	11
		% within GROUP	10.0%	12.0%	11.0%
	Business	Count	0	2	2
		% within GROUP	0.0%	4.0%	2.0%
	Professional	Count	1	0	1
		% within GROUP	2.0%	0.0%	1.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

88% of participants were married (table 6) and 67% were belonging to rural area (table 7). 89% of the subjects belonging to nuclear family (table 8). Majority of them with monthly income of Rs 12000 to 32000 per month (table 9); with 56% belonging to lower middle socio-economic class (table 10).

Table 6: Marital status

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
MARITAL STATUS	Single	Count	6	4	10
		% within GROUP	12.0%	8.0%	10.0%
	Married	Count	43	45	88
		% within GROUP	86.0%	90.0%	88.0%
	Widow/widower	Count	1	1	2
		% within GROUP	2.0%	2.0%	2.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 7: Residence

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
RESIDENCE	Urban	Count	18	15	33
		% within GROUP	36.0%	30.0%	33.0%
	Rural	Count	32	35	67
		% within GROUP	64.0%	70.0%	67.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 8: Family type

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
FAMILY TYPE	Nuclear	Count	45	44	89
		% within GROUP	90.0%	88.0%	89.0%
	Joint	Count	2	2	4
		% within GROUP	4.0%	4.0%	4.0%
	Extended	Count	3	4	7
		% within GROUP	6.0%	8.0%	7.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 9: Monthly income

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
MONTHLY INCOME	a	Count	2	4	6
		% within GROUP	4.0%	8.0%	6.0%
	b	Count	11	11	22
		% within GROUP	22.0%	22.0%	22.0%
	c	Count	13	14	27
		% within GROUP	26.0%	28.0%	27.0%
	d	Count	13	15	28
		% within GROUP	26.0%	30.0%	28.0%
	e	Count	7	4	11
		% within GROUP	14.0%	8.0%	11.0%
	f	Count	4	2	6
		% within GROUP	8.0%	4.0%	6.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

Table 10: Socio-economic class

			GROUP		Total
			TREATMENT NAIVE GROUP	RELAPSE GROUP	
SES CLASS	Category I	Count	1	2	3
		% within GROUP	2.0%	4.0%	3.0%
	Category II	Count	11	13	24
		% within GROUP	22.0%	26.0%	24.0%
	Category III	Count	27	29	56
		% within GROUP	54.0%	58.0%	56.0%
	Category IV	Count	11	6	17
		% within GROUP	22.0%	12.0%	17.0%
Total		Count	50	50	100
		% within GROUP	100.0%	100.0%	100.0%

While assessing the motivation, majority of the participants fell into pre-contemplation stage in both groups. Mean URICA score of treatment naïve group was 8.24; while it was 8.11 in relapse group (fig. 1). Comparison of the URICA SCORE between the two groups showed that URICA SCORE was higher in treatment naive group with a t value of 1.055 and was statistically non-significant with a p value of 0.294 (table 11).

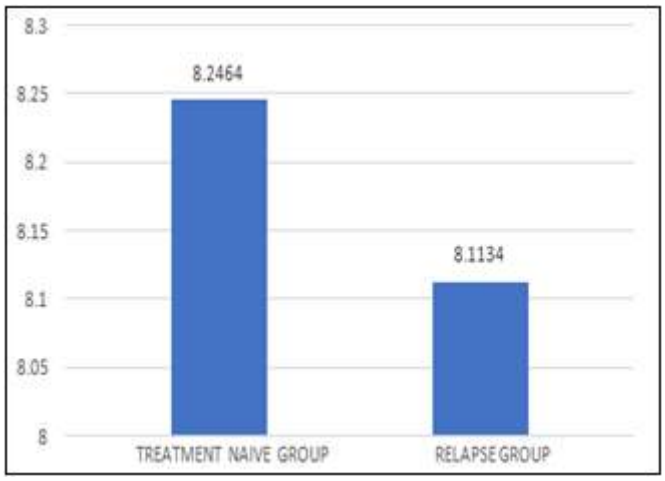

Figure 1: URICA score

Table 11: URICA score comparision

	GROUP	N	Mean	Std. Deviation	t	Df	P VALUE
URICA SCORE	TREATMENT NAIVE GROUP	50	8.2464	0.614062	1.055	98	0.294
	RELAPSE GROUP	50	8.1134	0.64596			

5. Discussion

This clinical study was a cross sectional analytical study carried out from May to July 2017 on 100 consecutive male patients admitted in the department of psychiatry belonging to a private tertiary care centre of South India. The socio demographic data were analyzed among the two groups of participants. There was no statistically significant difference in socio-demographic variables among two groups.

Motivation is one of the prime steps towards changing the life style or behavior, which plays a major role in the recovery from alcohol related problems[6]. There exists a variation in the degree of motivation among people who participate or seek treatment for alcohol related problems. In this study, majority of the participants were in pre-contemplation stage of motivation denoting predominant poor motivation in participants of both the groups. The assessment of motivation showed a mean URICA score of 8.24 and 8.11 in group 1 and group 2 respectively; with a P value of 0.294. There was a difference in level of motivation among treatment naïve and other ADS patients though not statistically significant.

A study by Bottlender and Soyka (2005) showed that the motivation to change had a modest impact but is still a relevant factor in de-addiction treatment[7]. This study showed that there was no significant difference in motivation among treatment naïve and relapse ADS patients. Hence lack of

motivation or poor motivation could have played a significant role resulting in relapse. At the same time there can be other factor viz., severity of alcohol consumption prior to treatment which also influences the treatment outcome in substance use disorders[8].

This study also proves need for assessment of motivation which could play significant role in treatment outcome in line with the research findings by Diclemante (1999) which showed the need for assessment of motivation and its better understanding in the development of effective and efficient treatment strategies[9]. The level of motivation in alcohol dependence treatment naïve and other patients is of great significance which shed light on importance of motivation in de-addiction management.

Study done by Prima Cheryl D'Souza and P. John Mathai[10], in 2011-12 showed that a highly significant change can be observed in level of motivation in patients who receive pharmacotherapy along with group discussions, education about effects of alcohol, family meetings and individual therapy.

Merits of our study were that there were no dropouts after screening, it was one of the very few studies done in a tertiary care center with the objective of comparing motivation among treatment naïve and relapse ADS patients. Limitations of the study were that the sample size was small and non-representative and hence results cannot be generalized to the entire community.

Future studies while assessing difference in motivation can address issues such as selection of large and representative population. Also variation in motivation with regards to various other co-morbid substance abuses can be studied.

6. Conclusion

The study indirectly implies the role of motivation as one of the important factors in relapse and provides us with an area for enforcing better treatment towards relapse prevention. Hence motivation enhancement should be given utmost importance while considering treatment for de-addiction, even from the first contact with the professional.

7. Conflict of interest

Nil

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Author Profile

Dr. Subramanyam M, PG Resident, Department of Psychiatry, Father Muller Medical College, Mangalore, Karnataka, India.

Dr. Aruna G, Associate Professor, Department of Psychiatry, Father Muller Medical College, Mangalore, Karnataka, India.