**International Journal of
Advanced Psychiatric Nursing**

Prakash Kodli
Principal and Associates
Professor, Department of
Mental Health Nursing,
Government College of
Nursing, BIMS, Belagavi,
Karnataka, India

A study to eveluate the outcome of psychosocial intervention on motivation and readiness to change among individuals with alcohol use disorder at Dharwad institute of mental health and neurosciences (DIMHANS) Dharwad

Prakash Kodli

Abstract
Background of the study and objectives: The aim of the study was to evaluate the outcome of psychosocial intervention on Motivation and Readiness to change among individuals with Alcohol use disorder at DIMHANS, Dharwad. The study was conducted with following objectives: (1) To assess the motivation and readiness to change among individuals with Alcohol Use Disorder. (2) To evaluate the effectiveness of psychosocial intervention by comparing post-intervention motivation and readiness to change scores of experimental and control group subjects. (3) To find out the correlation between motivation and readiness to change (4) To find out association between motivation and readiness to change with selected demographic and clinical characteristics of individuals with alcohol use disorder.
Research methodology: For the present study, quasi experimental non-equivalent control group pre-test post-test design was adopted. The independent variable was psychosocial intervention and dependent variable was Motivation and Readiness to change scores of alcohol use disorder patients.
By using convenient sampling technique 60 alcohol use disorder patients were selected from psychiatric wards of DIMHANS Dharwad, based on the convenience first 30 subjects were taken to control group and next 30 subjects were taken to experimental group.
The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) and University of Rhode Island Change Assessment Scale – URICA was used to collect the data on assessing Motivation and Readiness to change among individuals with alcohol use disorder.
The pre-test was conducted for both experimental and control group subjects. Psychosocial intervention was administered to experimental group subjects in 4 sessions for 10 days. Post-test was conducted on 11th day after the intervention for both the groups.
Results: Majority (70%) were in the age group 18-40yrs. 60% of the subjects were having secondary education. 28.33% of the subjects were farmers and private workers. 81.67% of the subjects were married. Largest proportions of participants were residing in rural area. In terms of clinical characteristics, 93.33% of the subjects were having the family history of substance abuse, 63.33% of the subjects were started to consume alcohol above the age of 18 years, among them 80% of the subjects were having peer pressure.
Subjects in experimental group improved in motivation and readiness to change scores compared to control group subjects at post-tests level. There was a significant positive correlation between motivation and readiness to change scores among alcohol subjects.
Interpretation and conclusion: The present study implies that nurse should involve in conducting psycho social intervention programme to improve the Motivation and readiness to change behaviour of alcohol dependents and help them to have a balanced lifestyle.

Keywords: Motivation, readiness to change, psychosocial intervention, (PSI)

Introduction
Alcoholism is one of the major medical and public health problems all over the world. It is now generally recognized that alcohol is one of the major social, economic problems confronting the society. The World Health Organization (2006) estimates that there are about 2 billion people worldwide who consume alcoholic beverages and 76.3 million with diagnosable alcohol use disorders. Alcohol consumption has health and social consequence via intoxication (drunkenness), alcohol dependence and other biochemical effects of alcohol. Alcoholism is considered as a family disease and not just something that affects an individual. Alcohol consumption is the leading risk factor for disease burden in low mortality developing countries and the risk factors in developed countries.

Corresponding Author:
Prakash Kodli
Principal and Associates
Professor, Department of
Mental Health Nursing,
Government College of
Nursing, BIMS, Belagavi,
Karnataka, India

Overall, there is a causal relation between alcohol consumption, and more than 60 types of disease and injury [1].

Alcohol is a cleared colour liquid with a strong burning taste. The rate of absorption of alcohol into the bloodstream is more rapid than its elimination. Absorption of alcohol into the blood stream is slower when food is present in the stomach. A small amount is excreted through urine and a small amount is exhaled.

A concentration of 80-100mg of alcohol per 100 ml of blood is considered intoxication. A person with 200-250mg will be toxic, sleepy, confused and his thought process will be altered. If blood level is 300 mg/100 ml of blood the person may lose consciousness. A concentration of 500 mg/100 ml is fatal. All the symptoms change according to tolerance [2].

Alcoholism is also known as alcohol- use- disorder and alcohol- dependence syndrome. It is a broad term for any drinking of alcohol that, result in problems. A person drinks large amounts over a long time period, has difficulty cutting down, acquiring and drinking alcohol takes up a great deal of time, alcohol is strongly desired, usage results in not fulfilling responsibilities, social problems, risky situation, withdrawal occurs when stopping and alcohol tolerance has occurred with use. Alcoholism is the use of alcohol creating harm to self (physiological and psychological) and to society to the extent that affecting the day-to-day activities. It is associated with increased risk of physical and mental health co -morbidities including gastrointestinal disorders (in particular psychological problem), neurological and cardiovascular disease, depression and anxiety disorders and ultimately, premature death [3].

Alcoholism is characterized by an increased tolerance to and physical dependence on alcohol, affecting an individual's ability to control alcohol consumption safely. These characteristics are believed to play a role in impeding an alcoholic's ability to stop drinking. Alcoholism can have adverse effects on mental health, causing psychiatric disorders and develop an increased risk of suicidal tendencies [4].

A person with alcohol dependence has come to rely on alcohol physically, psychologically and emotionally. The brain adapts to the presence of alcohol and undergoes persistent changes. When alcohol use suddenly stops, the body's accustomed internal environment changes drastically, causing symptoms of withdrawal. Alcoholism can be linked with many psychological, interpersonal, social, economic and medical problems. Alcoholism can increase the risk of depression and suicide, and play a role in violent crimes, including homicide and domestic violence (abuse of spouse or child). It can lead to traffic accidents and even accidents involving intoxicated pedestrians who decide to walk home after drinking. Alcoholism also can lead to unsafe sexual behaviour, resulting in accidental pregnancy or sexually transmitted disease [5].

According to WHO 2002 an estimated 2.3 million people died worldwide of alcohol-related causes, which accounted for 3.7% of global mortality in all age groups and 4.4% of Disability Adjusted life Years (DALYs). World Bank report states that in India alcoholism and drug dependents account for 25.7% of the DALYs in men and 6.5% in women [6].

While alcohol is consumed in many societies, recent years have seen changes in drinking patterns worldwide with high rates of consumption, drinking to excess among the general population and heavy episodic drinking among young people [7]. A study by (National Institute of Mental Health and Neuro Sciences) NIMHANS has shown that the average age of initiation has reduced from 28 years during the 1980s to 20 years in the recent times. The National Survey revealed that among adult men, about 21% were current drinkers and about 17% were regular users of alcohol, and among those seeking treatment about 44% were alcohol users. The most recent data on alcohol use from the National Family Health Survey (NFHS-3, 2007) showed that about 32% were current users of alcohol and between 4 and 13% were daily users. The proportion of users among rural and urban population is very similar (32% and 31% respectively) [8].

Objectives
- To assess the motivation and readiness to change among individuals with Alcohol Use Disorder.
- To evaluate the effectiveness of psychosocial intervention by comparing post-intervention motivation and readiness to change scores of experimental and control group subjects.
- To find out the correlation between motivation and readiness to change
- To find out association between motivation and readiness to change with selected demographic and clinical characteristics of individuals with alcohol use disorder.

Methodology
Research approach
In the present study the investigator adopted a quantitative data research approach to evaluate the outcome of psycho social intervention on motivation and readiness to change among individual with alcohol use disorder at DIMHANS Dharwad.

Research design
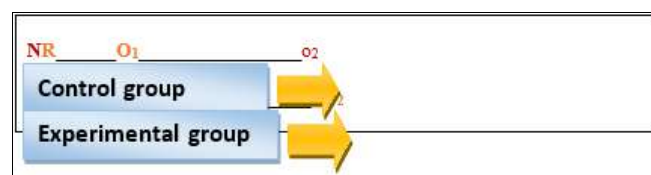The research design selected for this study was Non-equivalent control group pre-test post-test design

Fig 1: Schematic presentation of research design

O_1 = Pre interventional assessment on day one was done to assess the motivation and readiness to change behaviour among control and experimental group subjects.

X = Implementation of psychosocial intervention for experimental group subjects for 10 day.

O_2=Post interventional assessment was done on eleventh day on motivation and readiness to change behaviour among control and experimental group subjects.

NR = Non-random assignment of subjects to control and experimental groups.

Population: Individuals who are diagnosed with alcohol use disorder

Sample
Alcohol use disorder patients who were admitted at De-addiction ward of DIMHANS, Dharwad, and receiving

routine care were selected as sample for the study. The eligible criteria are presented in Table: 1 beyond the inclusion criteria; eligibility for this study also required the patient's willingness to participate, written informed consent, and approval from hospital administration.

Sample size: Total 60 participants (30 in control group and 30 in experimental group

Sampling technique
 In this study the researcher used non-probability convenient sampling technique to select sample from population. First 30 participants who met inclusion criteria were allotted to control group (From December-2016 to February 2017). Next 30 participants, who met inclusion criteria, were allotted to experimental group (From March 2017 to May 2017). Non probability convenient sampling technique was adopted to prevent intervention contamination.

Variables
Two types of variables were identified in this study. Independent variable and Dependent variables

Independent variables
▪ Psycho social intervention

Dependent variables
▪ Motivation
▪ Readiness to change

Setting of the study
The present study conducted at Dharwad Institute of Mental Health and Neurosciences, Dharwad. This is one of the oldest mental hospitals in India, founded in 1845. In 2009 the institution was converted into Autonomous post-graduation training institute and named as Dharwad Institute of Mental Health and Neurosciences (DIMHANS). It offers psychiatric services on out-patient and in-patient basis. Presently it is a 212 bedded tertiary level psychiatric hospital. DIMHANS is equipped with good infrastructure facilities to diagnose, treat and rehabilitate psychiatric patients.
For the present study data was collected at de-addiction ward of DIMHANS. It offers treatment services for persons with difficulties arising from the misuse of alcohol, tobacco and other drugs. The clinical services include out-patient consultation and in-patient treatment for substance use disorder *viz.* Alcohol, nicotine (smoking and chewing tobacco), cannabis, opioids and other drugs. In the de-addiction ward care is provided by multi-disciplinary team members include addiction medicine experts, psychiatric nurses, clinical psychologists and psychiatric social workers. The treatment includes pharmacological management, psychological counselling, family counselling and psycho-education. On an average 15 to 20 patients will admit in de-addiction ward per month. From December 2016 to May 2017, 86 patients admitted in DIMHANS for de-addiction treatment.

Description of tools
Tool 1: Socio demographic data
It includes age, sex, religion, education, occupation, family history of substance abuse, age at onset of drinking, reason to start alcohol, precipitating factors, type of alcohol intake, quantity of alcohol intake when started, reason to start, duration of intake of alcohol, duration of increased of intake alcohol, type of alcohol, frequency of drinking per day, time of drinking, binge drinking, drinking style, number of attempts to quit alcohol, reason for seeking treatment, wants to give up alcohol, previous history of hospitalization

Tool 2: The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)
The Stage of Change Readiness and Treatment Eagerness Scale (SOCRATES) is a 19-item, self-administered instrument developed by Miller, W. R. & Tonigan, J. S. 1996, designed to assess an individual's motivation to change behavior regarding alcohol use. It comprises of three sub scales problem recognition (Re) - 7 items, ambivalence (Am) - 4 items and taking Steps (Ts) -8 items. Items are scored from 1 to 5 with agree to disagree. The sum of each column yields the three scale scores. In recognition subscale possible range of score is from 7 to 35, high scores indicate acknowledgement of problem and desire for change, low scores indicate denial of problem. In ambivalence subscale possible range of score is from 4 to 20, high scores indicate uncertainty about drinking habit, low scores indicate certainty about drinking habit. In taking steps subscale possible range of score is from 8 to 40, high scores indicate concrete efforts to change behavior and maintain changes through prevention, low scores indicate no efforts to change in drinking habit. The psychometric analyses revealed Cronbach alpha for recognition subscale ranging from 0.85 to 0.95 and test-retest reliability 0.94, for ambivalence subscale Cronbach alpha ranging from 0.60 to 0.88 and test-retest reliability 0.83, for taking steps subscale Cronbach alpha ranging from 0.83 to 0.96 and test-retest reliability 0.93.

Tool 3: University of Rhode Island Change Assessment Scale – URICA
The University of Rhode Island Change Assessment Scale (URICA) was developed by James Prochaska in 1970. This URICA scale assesses readiness to change and motivation, these are considered predictors for behavioural treatment. It is a 32-item self-report measure that includes 4 sub scales measuring the stages of change: Pre contemplation (PC), Contemplation (C), Action (A), and Maintenance (M). Responses are given on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement). The subscales can be combined arithmetically (C + A + M – PC) to yield a Readiness to Change score. The psychometric analysis revealed Cronbach alpha coefficient for the four different stages of change as follows: pre-contemplation = 0.76, contemplation = 0.86; action = 0.89 and maintenance 0.85. The internal reliability of the total URICA scale score is coefficient alpha 0.82.

Tool 4: Alcohol Use Disorder as per DSM-5 criteria-mild, moderate and severe
The Diagnostic and Statistical Manual of Mental Disorders (DSM) initially developed to collect statistical information about mental disorders in the United States. The DSM–IV, was published in 1994, the DSM–IV–TR, a revision published in 2000, provided additional information on diagnosis. To be diagnosed with AUD, individuals must meet certain criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM). Under DSM–5, the version of the DSM, anyone meeting any two of the 11 criteria during the same 12-month period receives a diagnosis of AUD. The severity of AUD-mild, moderate,

or severe-is based on the number of criteria met. Presence of 2 to 3criteria is known as mild, 4 to 5 is moderate, and more than 6 of 11 criteria's is diagnosed as severe alcohol use disorder. By using this subject were diagnosed as alcohol use disorder before recruiting into this study.

Tool 5: HMSE (Hindi mental status examination)
Hindi mental status examination is a tool which was used to assess the cognitive impairment of alcohol use disorder patients. The researcher used HMSE tool to screen cognitive impairment of the subjects before including into the study. HMSE is 23 item questionnaires and total score is 31. A score of ≤23 is indicative of cognitive dysfunction. Those who had cognitive impairment were excluded from the study[75].

Tool 6: Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-AR)
Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-AR). It is the most widely used 10-item alcohol withdrawal monitoring scale, which excludes vital sign abnormalities. It was developed from the 18-item clinical institute withdrawal assessment for alcohol. It has a good reliability; validity and it is considered as one of the most widely used alcohol withdrawal assessment scale for symptom-triggered therapy. Each sign and symptom item of CIWA AR is evaluated on a 0–7 point Likert scale except for one item "orientation and clouding of sensorium", which is scored on a 0–4-point Likert scale. The possible range of score is 0–67. A score of 8 points or less indicates mild withdrawal and patients scoring less than 10 do not usually need additional medication for withdrawal. A score of 9 to 15 points indicates moderate withdrawal. A score greater than 15 points indicates severe withdrawal. Based upon this tool the researcher assessed for complicated withdrawal symptoms in participants, and such participants were excluded from the study.

Results
Organisation of findings
The data collected were organized under the following sections:

Section 1: Description of demographic variables, clinical characteristics, motivation and readiness to change scores of the subjects.

Section 2: Pre- Intervention comparison of motivation and readiness to change scores between experimental and control group subjects.

Section 3: Comparison of post-test motivation and readiness to changes cores between experimental and control group subjects.

Section 4: Correlation between motivation and readiness to change scores of subjects

Section 5: Association between socio-demographic variables with motivation and readiness to change behaviour. Between experimental and control group subjects.

**Section 4**: Correlation between motivation and readiness to change scores of subjects

Section 5: Association between socio-demographic variables with motivation and readiness to change behaviour.
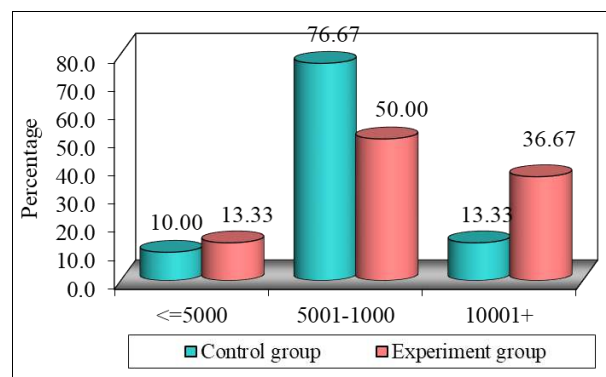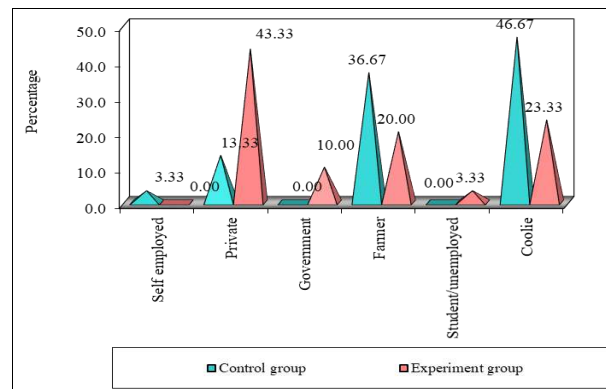

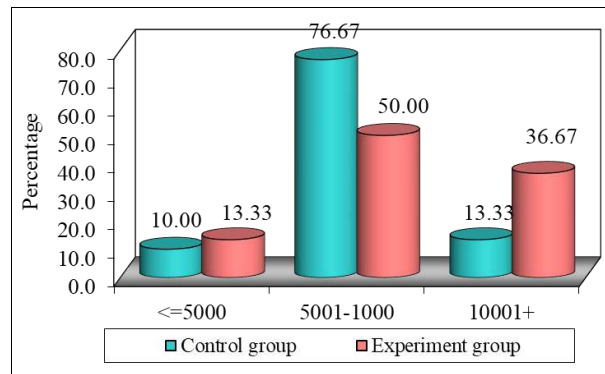**Fig 2:** Bar diagram showing distribution of subjects based on their age
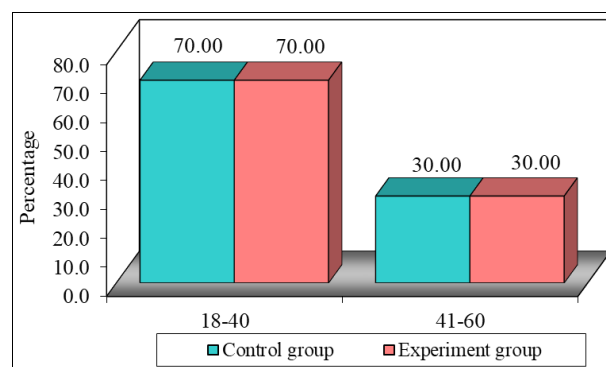
Fig 3: Bar diagram shows the percentage wise distribution of the samples based on their education status
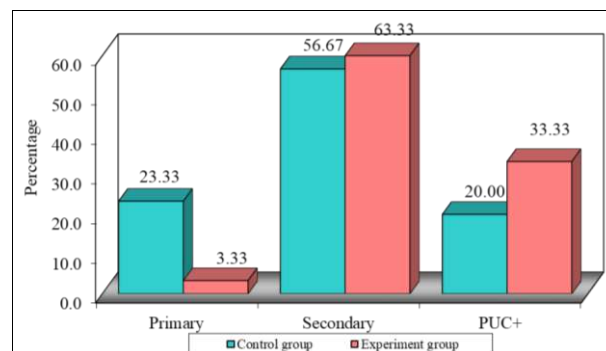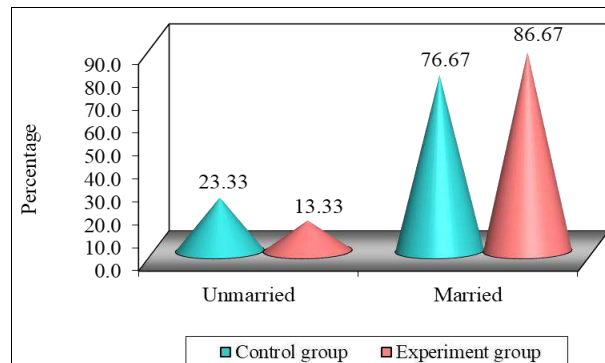

Fig 4: Pyramidal diagram showing distribution of subjects based on their occupation
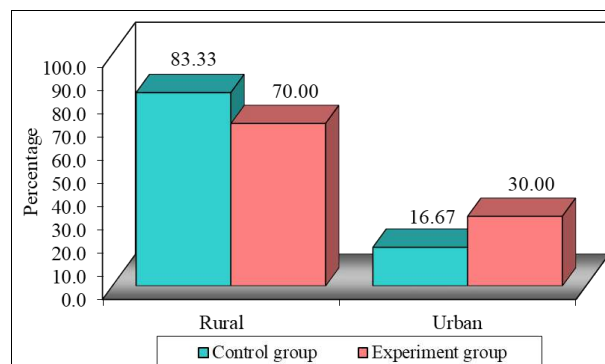

Fig 5: Cylinder diagram shows the percentage wise distribution of the samples based on their family monthly income

Fig 6: Pyramidal diagram showing distribution of subjects based on their marital status

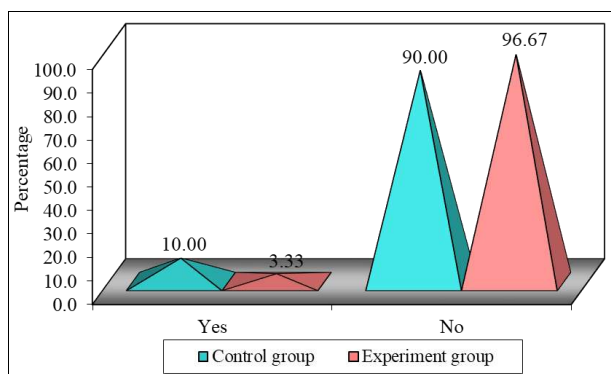**Fig 7:** Bar diagram showing distribution of subjects according to their area of residence

Fig 8: Bar diagram showing Distribution of subjects based on type of family
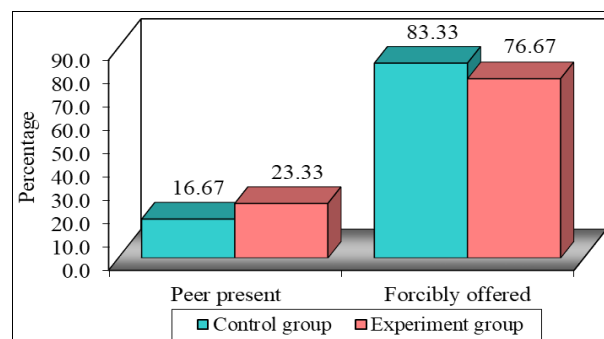
Table 1: Group wise distribution of subjects based on their clinical characteristics N =60

Sl. No	Clinical characteristics	Total		Experimental group (n=30)		Control group (n=30)	
		F	%	F	%	F	%
	Family history of substance abuse						
1	Yes	4	6.67	1	3.33	3	10.00
	No	56	93.33	29	96.67	27	90.00
	Age at onset of Alcohol intake						
2	Age from 12-18	22	36.67	11	36.67	11	36.67
	Age more than 18	38	63.33	19	63.33	19	63.33
	Reasons to start Alcohol						
3	Peer pressure	48	80.00	23	76.67	25	83.33
	Forcibly offered	12	20.00	7	23.33	5	16.67
	Precipitating factors (stressors)						
4	Present	5	8.33	3	10.00	2	6.67
	Absent	55	91.67	27	90.00	28	93.33
	Type of alcohol when started						
	Country liquor	18	30.00	5	16.67	13	43.33
5	Whiskey	20	33.33	12	40.00	8	26.67
	Rum	12	20.00	9	30.0013.33	83	10.00
	Beer	10	16.67	4		6	20.00
	Type of alcohol current use						
6	Country liquor	1	1.67	0	0.00	1	3.33

|							
	Foreign liquor	0	0.00	0	0.00	0	0.00
	Whiskey	59	98.33	30	100.00	29	96.67
7	**Time of drinking**						
	Only evening	13	21.67	2	6.67	11	36.67
	Only morning	0	0.00	0	0.00	0	0.00
	Both	15	25.00	7	23.33	8	26.67
	Through out	32	53.33	21	70.00	11	36.67
8	**Drinking style**						
	Solitary	1	1.67	0	0.00	1	3.33
	With others	0	0.00	0	0.00	0	0.00
	Both	59	98.33	30	100.00	29	96.67
9	**Number of attempts**						
	Nil	52	86.67	27	90.0010.00	25	83.33
	Single	8	13.33	3		5	16.67
10	**Reason for seeking treatment**						
	Financial loss	15	25.00	8	26.67	7	23.33
	Medical illness	6	10.00	4	13.33	2	6.67
	Social	39	65.00	18	60.00	21	70.00
11	**Wants to give up alcohol**						
	Yes	58	96.67	30	100.00	28	93.33
	No	2	3.33	0	0.00	2	6.67
12	**Reason to give up Alcohol**						
	Medical	10	16.67	6	20.00	4	13.33
	Financial	15	25.00	7	23.33	8	26.67
	Mental	0	0.00	0	0.00	0	0.00
	Social	35	58.33	17	56.67	18	60.00
13	**History of previous hospitalization**						
	Yes	1	1.67	1	3.33	0	0.00
	No	59	98.33	29	96.67	30	100.00

Fig 9: Pyramidal diagram showing distribution of subjects based on family history of substance abuse

Fig 10: Cylinder diagram shows the percentage wise distribution of the samples based on age at onset of alcohol intake
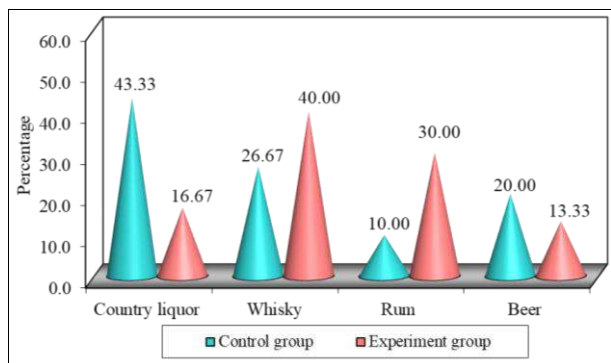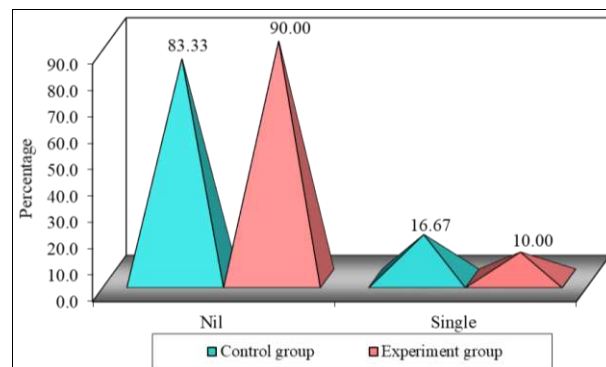

Fig 11: Bar diagram shows the percentage wise distribution of the samples based on reason to start Alcohol
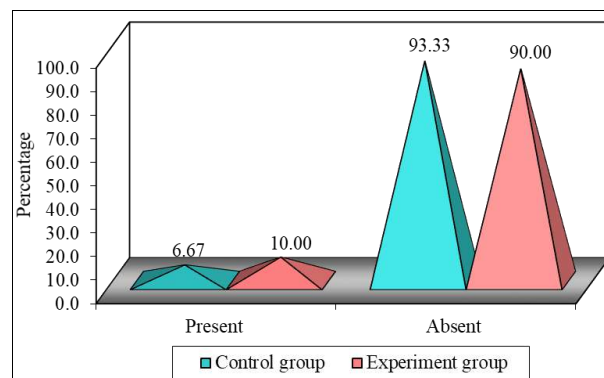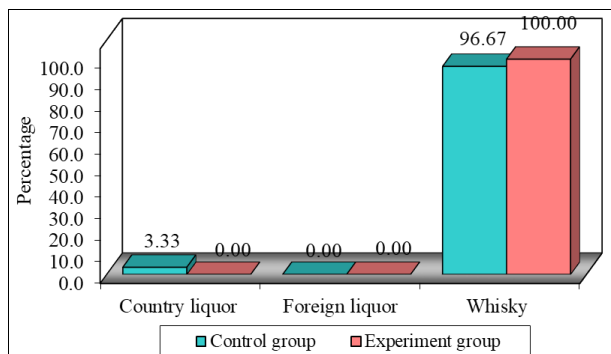

Fig 12: Pyramidal diagram showing percentage wise distribution of the samples based on precipitating factors (Stressors)

Fig 13: Pyramidal diagram showing percentage wise distribution of the samples based on type of Alcohol when started

Fig 14: Bar diagram shows the percentage wise distribution of the samples based on type of alcohol current use

Fig 15: Cylinder diagram shows the percentage wise distribution of the samples based on time of drinking Alcohol

Fig 16: Cylinder diagram shows the percentage wise distribution of the samples based on drinking style

Fig 17: Pyramidal diagram shows the percentage wise distribution of the samples based on number of attempts
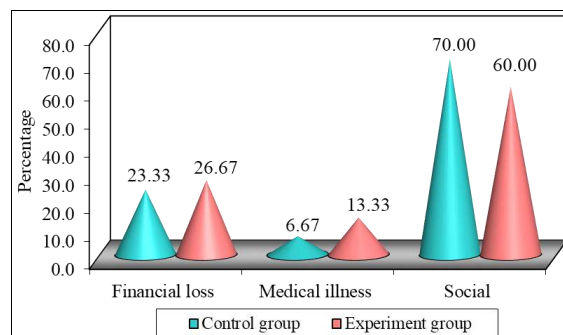
Fig 18: Pyramidal diagram shows the percentage wise distribution of the samples based on Reason for seeking treatment
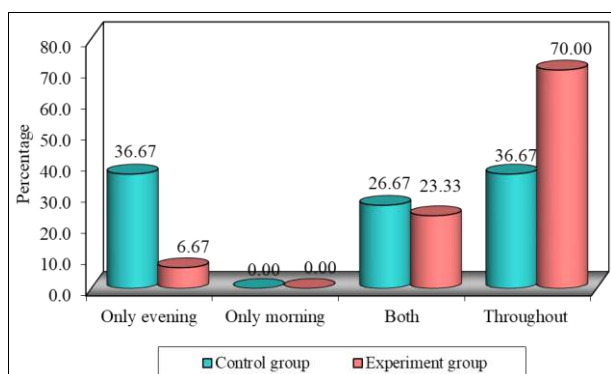

Fig 19: Pyramidal diagram shows the percentage wise distribution of the samples based on wants to give up Alcohol
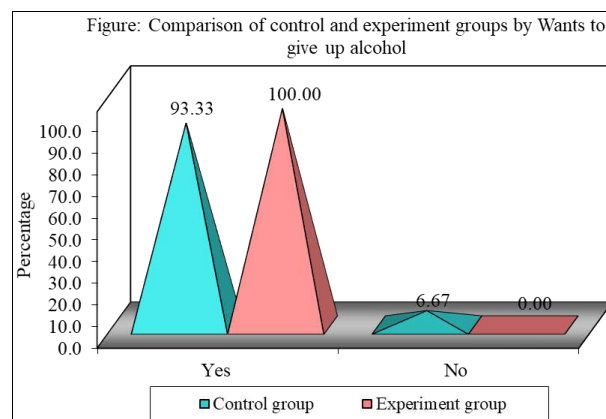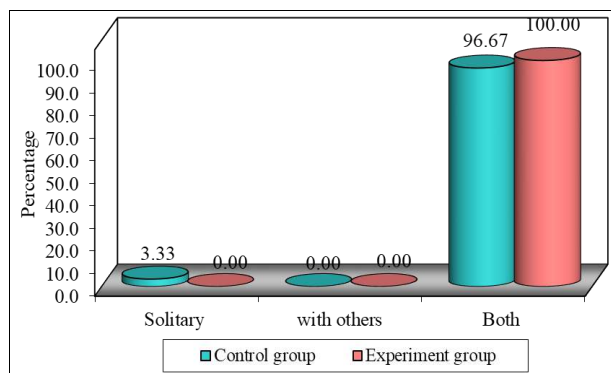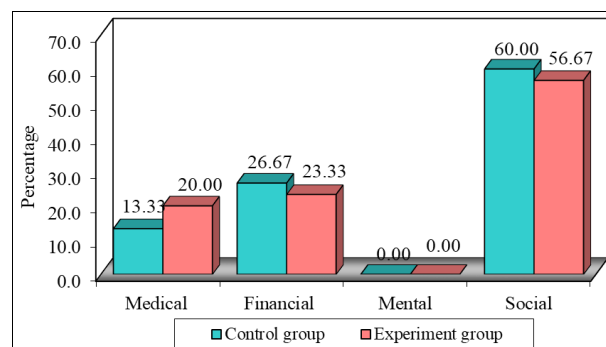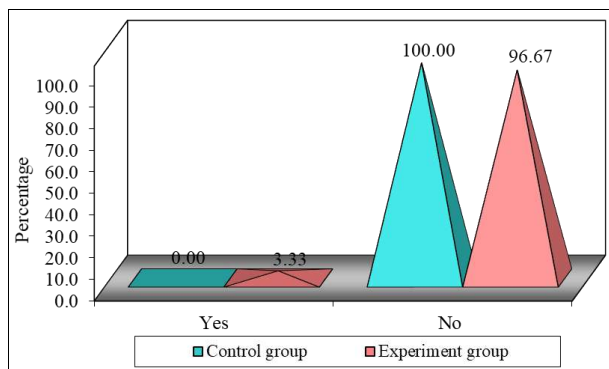

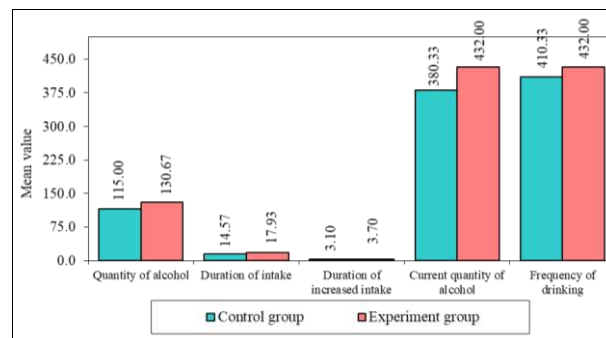**Fig 20:** Bar diagram shows the percentage wise distribution of the samples based on Reason to give up Alcohol

Fig 21: Pyramidal diagram shows the percentage wise distribution of the samples based on history of previous hospitalization


Fig 22: Group wise distribution of subjects based on their quantity of alcohol per day when started, duration of intake, duration of increased intake and current quantity of alcohol

Table 2: Group wise distribution of subjects based on their quantity of alcohol per day when started, duration of intake, duration of increased intake and current quantity of alcohol N=60

Variable	Group	Mean	SD	SE	*t*-value	*p*-value
Quantity of alcohol per day when started	Control group(n=30)	115.00	67.66	12.35	0.5273	0.6000
	Experimental group(n=30)	130.67	148.02	27.02		
Duration of intake (In years)	Control group (n=30)	14.57	8.59	1.57	1.4762	0.1453
	Experimental group(n=30)	17.93	9.07	1.66		
Duration of increased intake (In years)	Control group (n=30)	3.10	2.11	0.38	1.2483	0.2169
	Experimental group(n=30)	3.70	1.58	0.29		
Current quantity of alcohol (per day)	Control group (n=30)	380.33	252.01	46.01	1.0579	0.2945
	Experimental group(n=30)	432.00	89.69	16.37		

Table 2. Depicts that at pre intervention level both experimental and control group subjects were equal in consumption of alcohol, duration of intake, duration of increased intake and current quantity of alcohol intake per day.
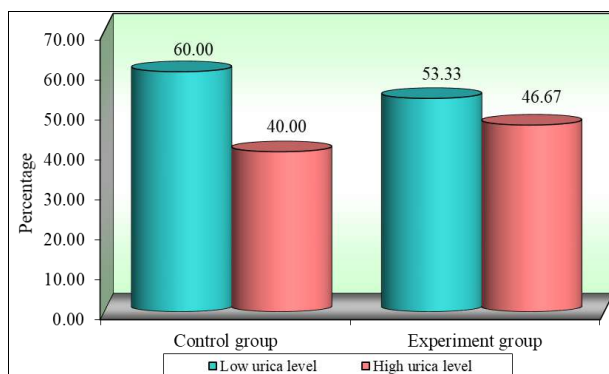
Fig 23: Cylinder diagram showing pre intervention scores of subjects based on their Motivation (URICA) scores between experimental and control group
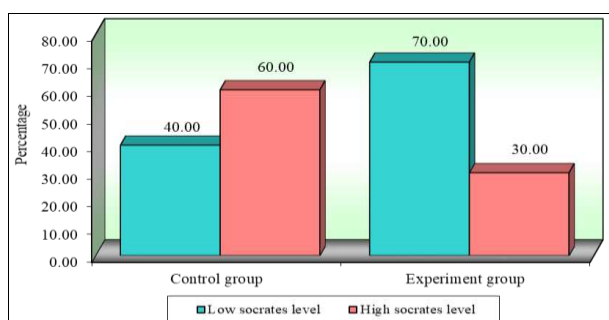
Fig 24: Bar diagram showing pre intervention scores of subjects based on their Readiness to change (SOCRATES) scores between experimental and control group

Section II: Pre-intervention comparison of motivation and readiness to change scores between experimental and control group subjects

Table 3: Comparison of Pre-test Motivation (URICA) scores between experimental and control group subjects N=60

Sl. No	Variables	Experimental Group (n=30)		Control group (n=30)		t value	P Value
		Mean	SD	Mean	SD		
1	Pre contemplation	32.00	2.21	31.16	2.65	1.33	0.18
2	Contemplation	19.43	4.23	20.13	3.54	0.68	0.49
3	Action	14.26	2.62	13.56	3.74	0.83	0.40
4	Maintenance	18.93	3.56	20.70	2.78	2.14	0.03*

DF =58, * significant at 0.05 level

Table 4: Comparison of Pre-test Readiness to change (SOCRATES) scores between experimental and control group subjects N=60

Sl. No	Variables	Experimental Group(n=30)		Control group N=(30)		t value	P value
		Mean	SD	Mean	SD		
1	Recognition	14.80	4.47	16.60	3.65	1.70	0.09
2	Ambivalence	10.03	2.25	13.26	1.98	5.90	0.001**
3	Taking steps	19.16	3.25	17.56	3.77	1.75	0.08

DF = 58, ** $p<0.001$

Section III: Comparison of post-test motivation and readiness to change scores between experimental and control group subjects

Table 5: Comparison of Post-test Motivation scores between experimental and control group subjects N=60

Sl. No	Variables	Experimental Group (n=30)		Control group (n=30)		T value	P value
		Mean	SD	Mean	SD		
1	Pre contemplation	9.03	1.21	31.50	2.60	42.73	0.0001**
2	Contemplation	30.56	1.33	21.23	3.58	13.35	0.0001**
3	Action	29.43	1.43	20.53	3.13	14.13	0.0001**
4	Maintenance	29.43	1.43	20.53	3.13	14.13	0.0001**

DF = 58, **$p<0.001$

Table 6: Comparison of Post-test readiness to change (SOCRATES) scores between experimental and control group subjects N=60

Sl No	Variables	Experimental Group (n=30)		Control group (n=30)		T value	P value
		Mean	SD	Mean	SD		
1	Recognition	32.9667	1.51	18.73	4.45	16.68	0.001**
2	Ambivalence	17.3667	1.18	13.80	2.07	8.17	0.001**
3	Taking steps	36.30	1.91	19.73	3.24	24.06	0.001**

DF =58 ** $p<0.001$

Section-IV: Correlation between motivation and readiness to change scores of subjects

Table 7: Correlations between Motivation (URICA) and readiness to change (SOCRATES) scores in experimental and control group subjects by Karl Pearson's correlation coefficient method N=60

Samples	Intervention	Correlation between Readiness to change (SOCRATES) scores at	
		Before intervention	After intervention
Control group (n=30)	Before intervention Motivation (URICA)	r=0.5187*	r=0.4905*
	After intervention Motivation (URICA)	r=0.3020*	r=0.5103*
Experimental group (n=30)	Before interventionMotivation (URICA)	r=0.3172*	r=0.4362*
	After intervention Motivation (URICA)	r=0.0478	r=0.0632
Total (n=60)	Before interventionMotivation (URICA)	r=0.3963*	r=-0.0399
	After intervention Motivation (URICA)	r=-0.0138	r=0.8559*

*Significant at 5% level of significance

Section V: Association between socio demographic variables and clinical characteristics with motivation and readiness to change behaviour

Table 8: Association between pre-test Motivation (URICA) scores with selected socio demographic and clinical characteristics in control group N=60

Factors	Low	%	High	%	Total	Chi-square	p-value
Age groups							
Age 1	12	57.14	9	42.86	21	0.2380	0.6260
Age 2	6	66.67	3	33.33	9		
Educations							
Education 1	4	57.14	3	42.86	7	0.1450	0.9300
Education 2	10	58.82	7	41.18	17		
Education 3	4	66.67	2	33.33	6		
Occupations							
Self employed	0	0.00	1	100.00	1	3.2010	0.3620
Private	3	75.00	1	25.00	4		
Farmer	8	72.73	3	27.27	11		
Coolie	7	50.00	7	50.00	14		
Income							
Income 1	1	33.33	2	66.67	3	1.3160	0.5180
Income 2	15	65.22	8	34.78	23		
Income 3	2	50.00	2	50.00	4		
Marital status							
Married	4	57.14	3	42.86	7	0.0310	0.8600
Unmarried	14	60.87	9	39.13	23		
Residency							
Rural	16	64.00	9	36.00	25	1.0000	0.3170
Urban	2	40.00	3	60.00	5		
Type of family							
Joint	7	58.33	5	41.67	12	0.0230	0.8790
Nuclear	11	61.11	7	38.89	18		
Family history	18		12		30		

Yes	1	33.33	2	66.67	3	0.9880	0.3200
No	17	62.96	10	37.04	27		
Age at onset							
Age 12 to 18	7	63.64	4	36.36	11	0.0960	0.7570
Age 18+	11	57.89	8	42.11	19		
Reason to start alcohol							
Peer present	3	60.00	2	40.00	5	0.0000	1.0000
Forcibly offered	15	60.00	10	40.00	25		
Precipitating factors							
Present	0	0.00	2	100.00	2	3.2140	0.0730
absent	18	64.29	10	35.71	28		
Type of alcohol when started							
Country liquor	7	53.85	6	46.15	13	1.2610	0.7380
Whisky	6	75.00	2	25.00	8		
Rum	2	66.67	1	33.33	3		
Beer	3	50.00	3	50.00	6		
Type of alcohol current use							
Country liquor	0	0.00	1	100.00	1	1.5520	0.2130
Whisky	18	62.07	11	37.93	29		
Time of drinking							
Only evening	8	72.73	3	27.27	11	1.2120	0.5450
Both	4	50.00	4	50.00	8		
Throughout	6	54.55	5	45.45	11		
Drinking style							
Solitary	0	0.00	1	100.00	1	1.5520	0.2130
Both	18	62.07	11	37.93	29		
Number of attempts							
Nil	15	60.00	10	40.00	25	0.0000	1.0000
Single	3	60.00	2	40.00	5		
Reason for seeking treatment							
Financial loss	5	71.43	2	28.57	7	0.5360	0.7650
Medical illness	1	50.00	1	50.00	2		
Social	12	57.14	9	42.86	21		
Wants to give up alcohol							
Yes	17	60.71	11	39.29	28	0.0890	0.7650
No	1	50.00	1	50.00	2		
Reason to give up							
Medical	2	50.00	2	50.00	4	1.0650	0.5870
Financial	6	75.00	2	25.00	8		
Social	10	55.56	8	44.44	18		
Total	18	60.00	12	40.00	30		

Table 9: Association between pre-test Readiness to change (SOCRATES) scores with selected socio demographic and clinical characteristics in control group N=60

Factors	Low	%	High	%	Total	Chi-square	p-value
Age groups							
Age 1	8	38.10	13	61.90	21	0.1060	0.7450
Age 2	4	44.44	5	55.56	9		
Educations							
Education 1	1	14.29	6	85.71	7	3.2260	0.1990
Education 2	9	52.94	8	47.06	17		
Education 3	2	33.33	4	66.67	6		
Occupations							
Self employed	0	0.00	1	100.00	1	1.2260	0.7470
Private	1	25.00	3	75.00	4		
Farmer	5	45.45	6	54.55	11		
Coolie	6	42.86	8	57.14	14		
Income							
Income 1	1	33.33	2	66.67	3	3.3090	0.1910
Income 2	11	47.83	12	52.17	23		
Income 3	0	0.00	4	100.00	4		
Marital status							
Married	2	28.57	5	71.43	7	0.4970	0.4810
Unmarried	10	43.48	13	56.52	23		
Residency							
Rural	11	44.00	14	56.00	25	1.0000	0.3170
Urban	1	20.00	4	80.00	5		

Type of family						
Joint	6	50.00	6	50.00	12	0.8330	0.3610
Nuclear	6	33.33	12	66.67	18		
Family history						
Yes	0	0.00	3	100.00	3	2.2220	0.1360
No	12	44.44	15	55.56	27		
Age at onset						
Age O1	3	27.27	8	72.73	11	1.1720	0.2790
Age O2	9	47.37	10	52.63	19		
Reason to start alcohol						
Peer present	2	40.00	3	60.00	5	0.0000	1.0000
Forcibly offered	10	40.00	15	60.00	25		
Precipitating factors						
Present	0	0.00	2	100.00	2	1.4290	0.2320
absent	12	42.86	16	57.14	28		
Type of alcohol when started						
Country liquor	4	30.77	9	69.23	13	2.3160	0.5100
Whisky	5	62.50	3	37.50	8		
Rum	1	33.33	2	66.67	3		
Beer	2	33.33	4	66.67	6		
Type of alcohol current use						
Country liquor	0	0.00	1	100.00	1	0.6900	0.4060
Whisky	12	41.38	17	58.62	29		
Time of drinking						
Only evening	5	45.45	6	54.55	11	3.6270	0.1630
Both	1	12.50	7	87.50	8		
Throughout	6	54.55	5	45.45	11		
Drinking style						
Solitary	0	0.00	1	100.00	1	0.6900	0.4060
Both	12	41.38	17	58.62	29		
Number of attempts						
Nil	10	40.00	15	60.00	25	0.0000	1.0000
Single	2	40.00	3	60.00	5		
Reason for seeking treatment						
Financial loss	6	85.71	1	14.29	7	8.5710	0.0140*
Medical illness	0	0.00	2	100.00	2		
Social	6	28.57	15	71.43	21		
Wants to give up alcohol						
Yes	10	35.71	18	64.29	28	3.2140	0.0730
No	2	100.00	0	0.00	2		
Reason to give up						
Medical	2	50.00	2	50.00	4	11.7710	0.0030*
Financial	7	87.50	1	12.50	8		
Social	3	16.67	15	83.33	18		
Total	12	40.00	18	60.00	30		

Testing of hypotheses

H_0: There will be no statistically significant increase in readiness to change scores among experimental group subjects compared to control group subjects.

The unpaired' test was used to find out the difference in the post-test Readiness to change scores between experimental and control group subjects. The post-test Readiness to change scores among individuals with alcohol use disorder who had undergone psychosocial intervention was significantly greater than those who had not undergone psychosocial intervention ($p<0.01$). Hence a hypothesis (Ho) was rejected since there was significant differences between post-test mean Readiness to change scores of experimental and control group subjects.

H_0: There will be no statically significant increase in motivation scores among experimental group subjects compared to control group subjects.

The unpaired' test was used to find out the difference in the post-test motivation scores between experimental and control group subjects. The post-test Motivation scores among individuals with alcohol use disorder who had undergone psychosocial intervention been significantly greater ($p<0.01$) than those who had not undergone psychosocial intervention. Hence a hypothesis (HO) was rejected since there were significant differences between post-test mean of experimental and control group subjects.

H_0: There is no correlation between Motivation and Readiness to change scores.

The result of Karl Pearson's correlation coefficient between Motivation and readiness to change variables revealed a significant positive correlation between Motivation and readiness to change scores. Findings of the study indicate that as the Motivation scores increased Readiness to change scores also increased in experimental and control group subjects. Hence H_o was rejected.

On the basis of findings of the study the following recommendations have been made
1. The study can be replicated on a large sample, spread over a longer period of time which might yield more reliable results.
2. The similar study can be conducted with more follow-up assessments and assessing relapse rates.
3. Similar study can be conducted to compare motivation levels and readiness scores with relapse rates.

Summary
The researcher felt a deep sense of satisfaction and fulfilment for having undertaken this study. This chapter dealt clearly about the implications of this study and also have provided limitations, suggestions, and recommendations for future studies.

Conflict of Interest
Not available

Financial Support
Not available

References
1. Vyas JN Ahuja N. Textbook of post graduate psychiatry, 2 ed. New Delhi: Jaypee brothers; c2007.
2. Sreevani R. Textbook of a guide to mental health and psychiatric nursing: 4th ed. New Delhi: Jaypee brothers; c2016.
3. Ahuja N, Vyas JN. Textbook of Postgraduate Psychiatry. New Delhi: Jaypee Brothers; c2007.
4. Gabbard GO, Atkinson SD. Synopsis of treatments of psychiatric disorders, 2nd edition ed.: India Publishers and Distributors; c2003.
5. Antai-Otong D. Psychiatric nursing biological and behavioral concept, Delmar Thomas Learning., 1st edition ed.: India Publishers and Distributors; c2004.
6. Park KE. Text book of preventive social medicine, 19th ed. Jabalpur: Banarsidas Bhanot Pvt Ltd; c2007.
7. World/Global/Alcohol/Drink Consumption; c2009.
8. Report from the WHO Collaborative Study on Alcohol and Injuries. Alcohol and Injury in Emergency Departments. Geneva World Health Organization; c2007.
9. Miller WR, Tonigan JS. Assessing drinkers' motivation for change: The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES). Psychology of Addictive Behaviors. 1996;10(2):81-89.
10. Willoughby FW, Edens JF. Construct validity and predictive utility of the Stages of Change Scale for alcoholics. Journal of Substance Abuse. 1996;8:275-291.
11. National Institute on Alcohol Abuse and Alcoholism NIH Publication No. 13–7999 Reviewed July 2. www.niaaa.nih.gov. 301.443.3860.
12. Paramita Sengupta, *et al*. WHO South-East Asia Journal of Public Health, 2014 Apr-Jun, 3(2).
13. Sullivan JT, Sykora K, Schneiderman J, Naranjo CA, Sellers EM. Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA – Ar) British Journal of Addiction. 1989;84:1353 1357.