CHAPTER IV

ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data collected. The collected data were assembled, analysed and tested for their significance. Descriptive and inferential statistics were used for analysing data in the light of the objectives of the study. The findings of the study were discussed in the following section.

Section I: A. Distribution of Demographic variables in experimental and control groups of alcohol dependent clients.

B. Distribution of audit variables among the Participants of alcohol dependent clients.

Section II: Mean and standard deviation of baseline score of control and experimental groups.

Section III: Mean and standard deviation of baseline and endpoint scores of control and experimental groups.

Section I represents the finding of distribution of demographic variables in experimental and control groups of alcohol dependence. The results of section I A are shown below in table I (a, b) and diagrammatic representation (fig 5, 6, 7, 8, 9, & 10).

A. Distribution of Demographic variables in experimental and control groups of alcohol dependent clients.

TABLE 1(a):Mean age in control and experimental group.

N = 100

AGE	Control group (N= 20)		Experimental group (N=20)		t	df	Sig (2- tailed)
	Mean	SD	Mean	SD			
	32.82	6.608	33.56	7.812	.526	49	.601[NS]

Interpretation:

Table 1(a) shows that mean age in control group were **32.82**whereas**33.56** in experimental group, the non-significant t- test infers that the age (18yrs - 60 yrs.) is similar between the control and experimental groups. The mean age of two groups are shown in fig 5.
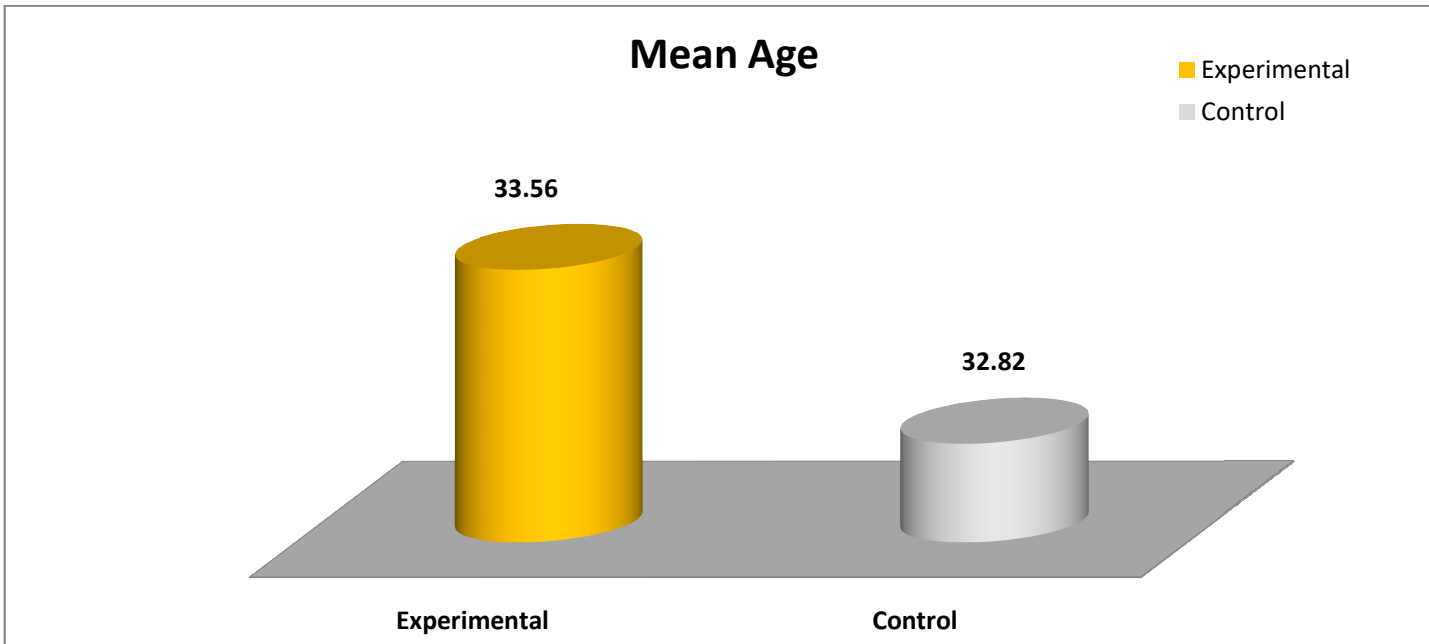
Fig 5: Mean age in control and experimental group.

TABLE 1(b): Distribution of selected demographic variables in experimental and control group.

N = 100

S.No	Demographic variables	Control group (N=50)		Experimental group (N=50)		Chi Square value	'P' Value
		No.	%	No	%		
1.	**Marital Status**						
	a) Single	17	34.0	19	38.0	**10.535**	.309[NS]
	b) Married	24	48.0	23	46.0		
	c) Divorced	4	8.0	5	10.0		
	d) Widowed	5	10.0	3	6.0		
2.	**Education**						
	a) Up to matriculation	13	26.0	11	22.0	**12.984**	. 163[NS]
	b) Higher secondary	17	34.0	11	22.0		
	c) Graduate	17	34.0	24	48.0		
	d) Post graduate & above	3	6.0	4	8.0		
3.	**Occupation**						
	a) Employee	10	20.0	11	22.0	**8.118**	.522[NS]
	b) Business	15	30.0	13	26.0		
	c) Self employed	15	30.0	9	18.0		
	d) Unemployed	10	20.0	17	34.0		
4.	**Income**						
	a) Nil	10	20.0	17	34.0	**6.941**	.643[NS]
	b) Rs. 5k - Rs. 15k	19	38.0	10	20.0		
	c) Rs. 16k - Rs. 25k/-	15	30.0	12	24.0		
	d) Rs. 25k & above	6	12.0	11	22.0		
5.	**Religion**						
	a) Hindu	9	18.0	5	10.0	**5.596**	.780[NS]
	b) Muslim	4	8.0	5	10.0		
	c) Christian	33	66,0	34	68.0		
	d) Others	4	8.0	6	12.0		

In the above table the marital status in controls and experimental shows 34.0% and 38.0% single whereas 48.0% married in control and 46.0% in experimental group. 8.0% and 10.0% were divorced in control and experimental group while 10.0 were widowed in control group and 6.0% in experimental group. The percentages are shown in fig 6.

In educational status, 26.0% were educated up to matriculation in control group compared to 22.0% in experimental group. 34.0% were higher secondary in control group and 22.0% in experimental group. 34.0% graduate in control and 48.0% graduate in experimental group 6.0% Post graduate in control group as compared to 8.0% in experimental group. The percentage distribution in educational qualification is shown in fig 7.

In occupational status, 20.0% were employee in control as compared to 22.0% in experimental group. 30.0% from control group and 26.0% from experimental group were in business. 30.0%self-employed in control group and 18.0% in experimental group. 20.0% were unemployed as compared to 34.0% in experimental group. Percentage distribution in occupational status is shown in diagrammatic representation fig 8.

In control group 20.0% and in experimental group 34.0% were found Nil in income status, 38.0% in control group and 20.0% in experimental group earned Rs. 5,000/- - Rs. 15,000/- whereas Rs. 16,000/- - Rs. 25,000/- earned by 30.0% of control group and 24.0% of experimental group. Rs. 25,000/- & above were found in 12.0% of control group and 22.0% of experimental group. Percentage distribution of Income status is shown in diagrammatic representation fig 9.

In religion status it was found 18.0% Hindu in control and 10.0% in experimental group whereas 8.0% were Muslim in control and 10.0% in experimental group. 66% were Christian in control and 68.0% in experimental while 8.0% in control and 12.0% in experimental were found to be in other religion. Percentage distribution of religion status is shown in diagrammatic representation fig 10.

The Chi-square values show that there were no significant difference regarding marital status, education, occupational, income and religion status between the groups. Therefore, the both groups were homogenous and comparable.
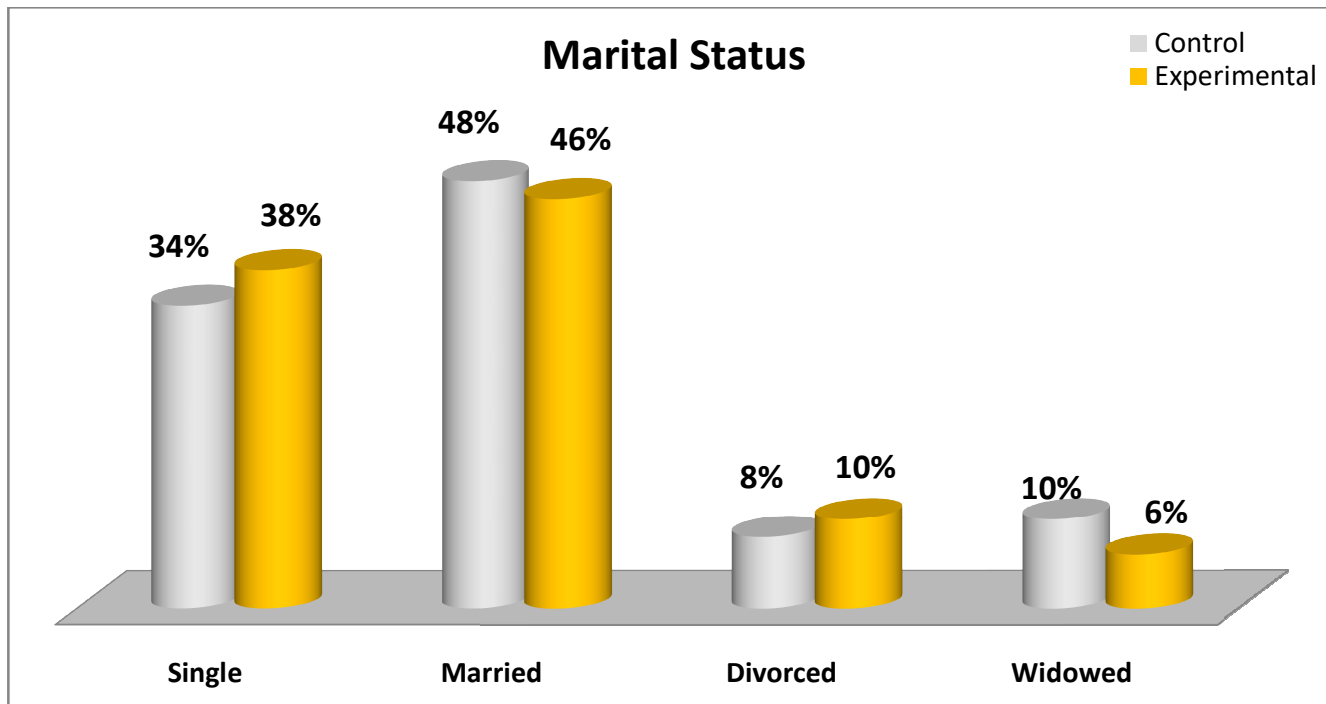
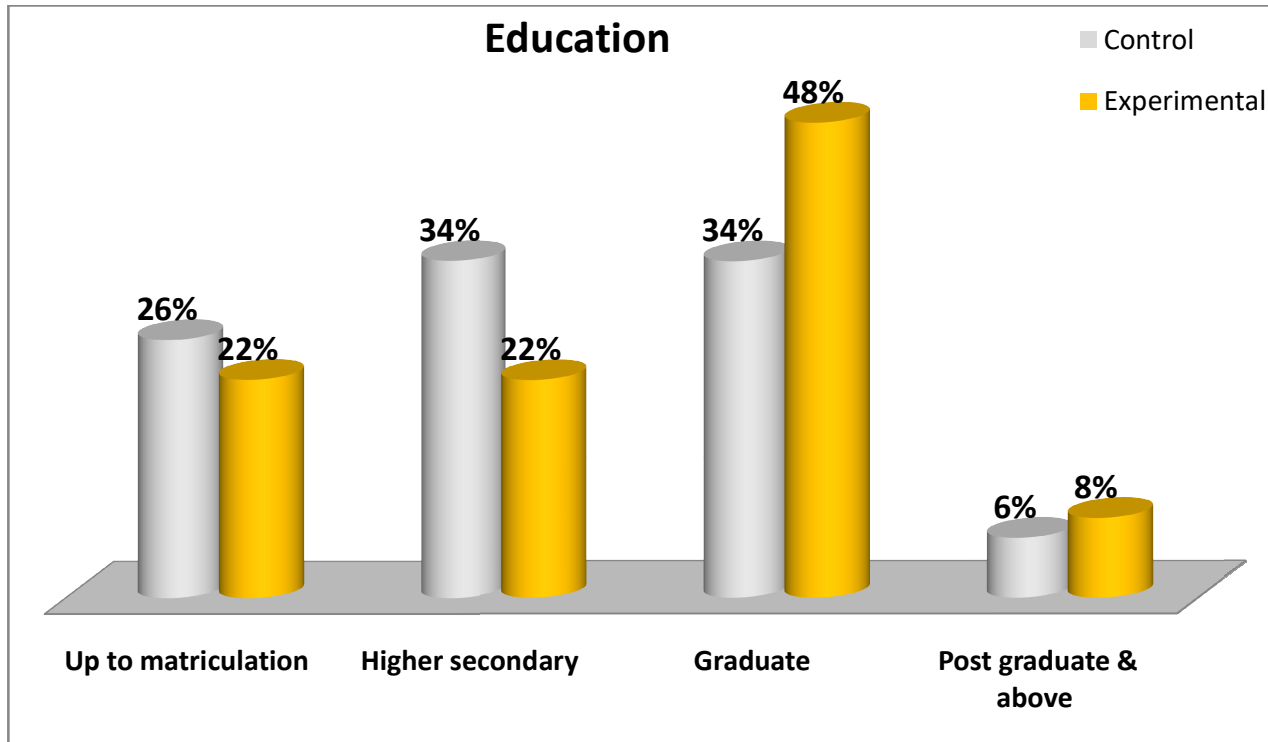*Fig 6: Marital status in control and experimental group.*

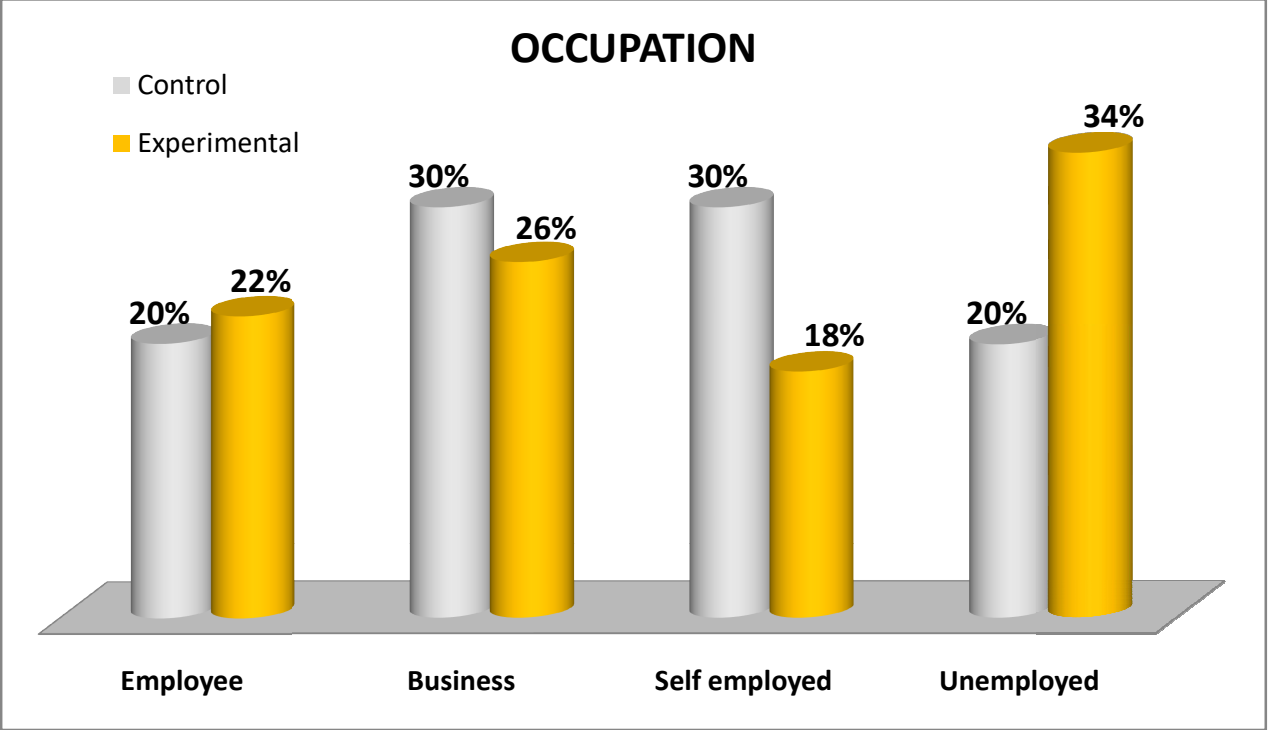*Fig 7: Educational status in control and experimental group*

OCCUPATION

Control
Experimental

	Employee	Business	Self employed	Unemployed
Control	20%	30%	30%	20%
Experimental	22%	26%	18%	34%

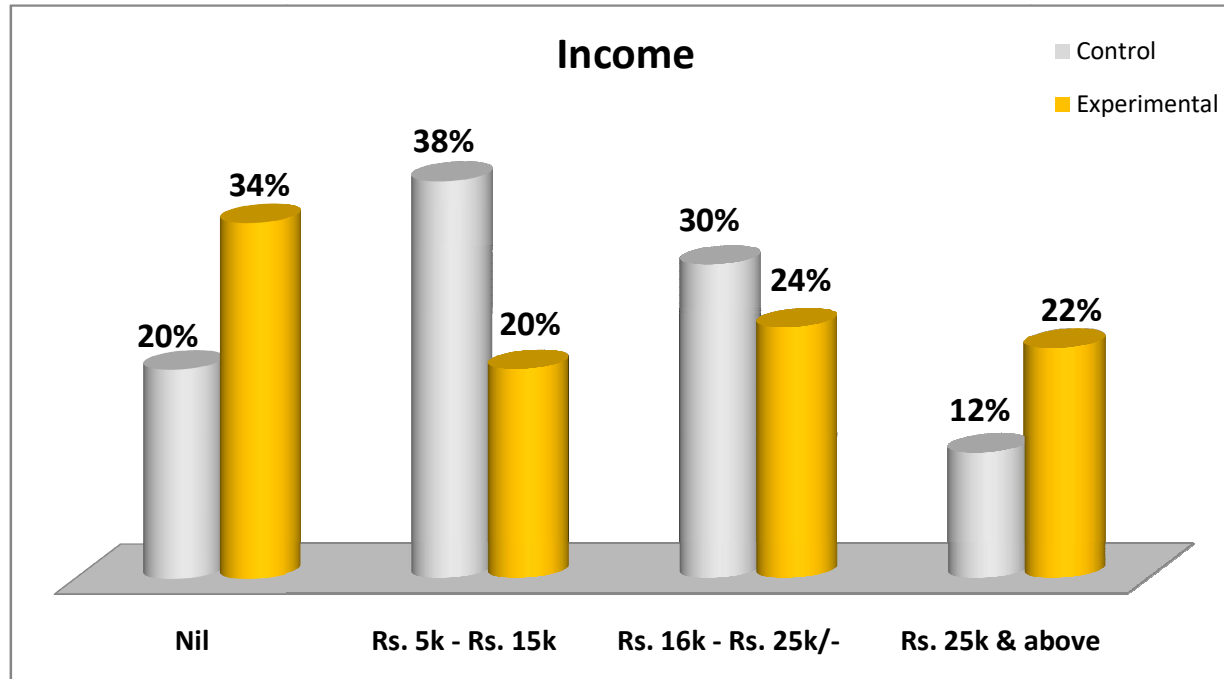*Fig 8: Occupational status in control and experimental group*

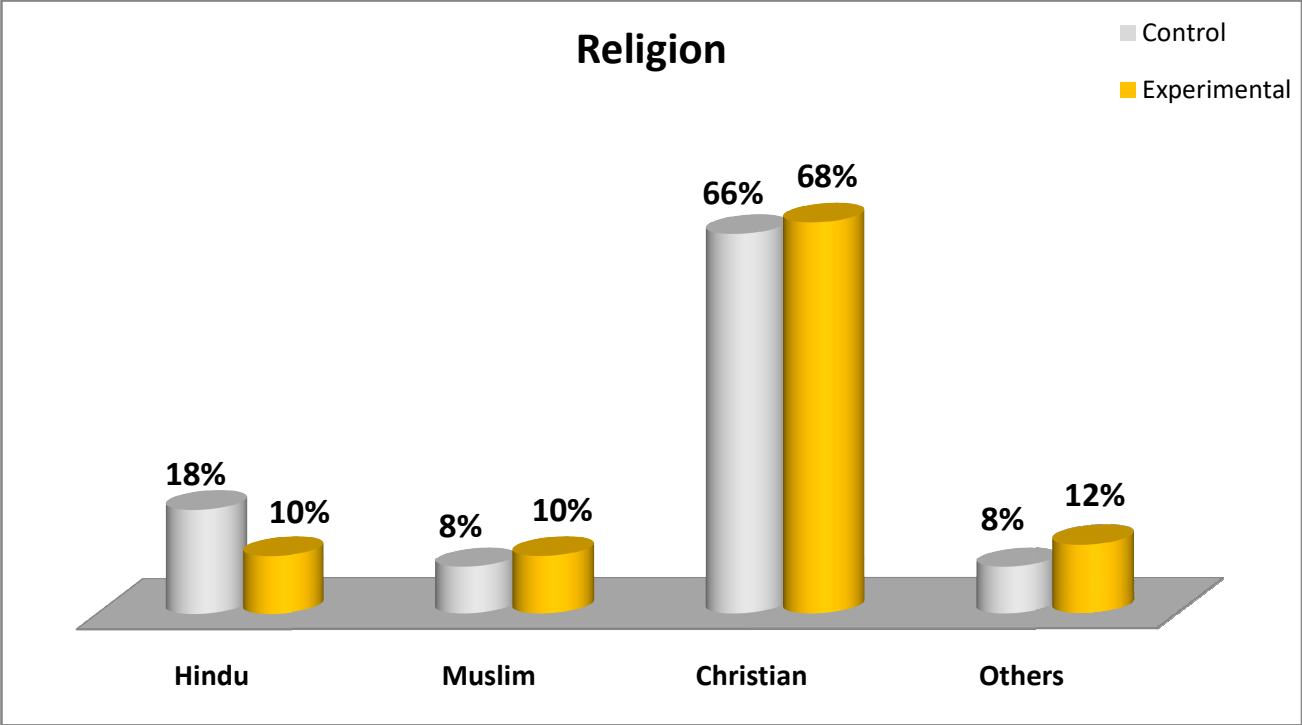*Fig 9: Income status in control and experimental group.*

Fig 10: Religion status in control and experimental group.

TABLE 2: Distribution of audit variables among the participants of alcohol dependent clients.

N=100

Variables		Group			
		Control		Experimental	
		N	%	N	%
AUDIT 1	Never	0	00.0	1	2.0
	Monthly or less	30	60.0	8	16.0
	2-4 times a month	16	32.0	7	14.0
	2-3 times a week	4	8.0	33	66.0
	4 or more times a week	0	00.0	1	2.0
Total		50	100%	50	100%
AUDIT 2	1 or 2	9	18.0	31	62.0
	3 or 4	10	20.0	6	12.0
	5 or 6	20	40.0	3	6.0
	7 or 9	11	22.0	10	20.0
	10 or more	0	00.0	0	00.0
Total		50	100%	50	100%
AUDIT 3	Never	8	16.0	8	16.0
	Less than monthly	13	26.0	7	14.0
	Monthly	19	38.0	16	32.0
	Weekly	10	20.0	19	38.0
	Daily or almost daily	0	00.0	0	00.0
Total		50	100%	50	100%
AUDIT 4	Never	9	18.0	11	22.0
	Less than monthly	16	32.0	11	22.0
	Monthly	19	38.0	15	30.0
	Weekly	6	12.0	13	26.0
	Daily or almost daily	0	00.0	0	00.0
Total		50	100%	50	100%
AUDIT 5	Never	8	16.0	7	14.0
	Less than monthly	11	22.0	19	38.0
	Monthly	20	40.0	10	20.0
	Weekly	11	22.0	14	28.0
	Daily or almost daily	0	00.0	0	00.0
Total		50	100%	50	100%
AUDIT 6	Never	7	14.0	9	18.0
	Less than monthly	21	42.0	7	14.0
	Monthly	15	30.0	21	42.0
	Weekly	7	14.0	13	26.0
	Daily or almost daily	0	00.0	0	00.0
Total		50	100%	50	100%

AUDIT 7	Never	7	14.0	6	12.0
	Less than monthly	17	34.0	10	20.0
	Monthly	16	32.0	22	44.0
	Weekly	10	20.0	11	22.0
	Daily or almost daily	0	00.0	1	2.0
Total		**50**	**100%**	**50**	**100%**
AUDIT 8	Never	8	16.0	11	22.0
	Less than monthly	13	26.0	12	24.0
	Monthly	17	34.0	14	28.0
	Weekly	12	24.0	11	22.0
	Daily or almost daily	0	00.0	2	4.0
Total		**50**	**100%**	**50**	**100%**
AUDIT 9	No	6	12.0	10	20.0
	Yes, but not in the past year	32	64.0	19	38.0
	Yes, during the past year	12	24.0	21	42.0
Total		**50**	**100%**	**50**	**100%**
AUDIT 10	No	6	12.0	7	14.0
	Yes, but not in the past year	31	62.0	20	40.0
	Yes, during the past year	13	26.0	23	46.0
Total		**50**	**100%**	**50**	**100%**

Table 2 shows the alcohol misuse by the clients. The second step in the study was to assess the alcohol misuse of the clients in both the group. The statistical analysis revealed that **100%** alcohol misuse by the participants was identified. The results are shown in diagrammatic representation in fig. 11.
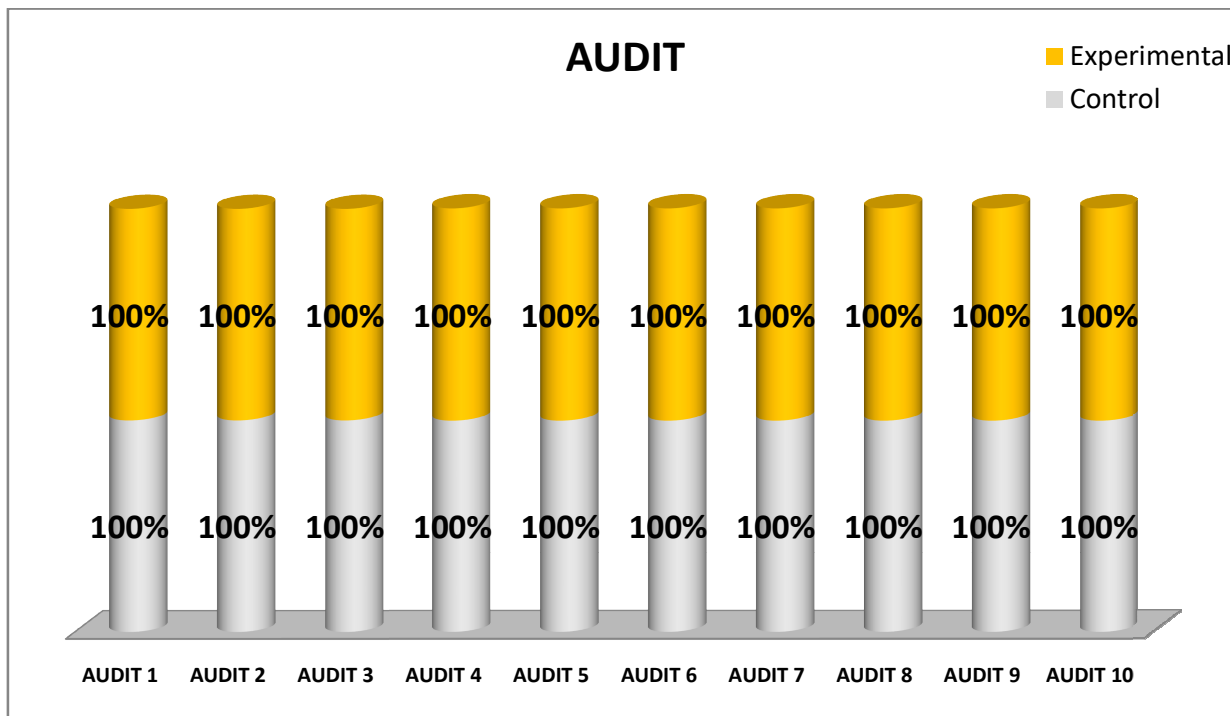
Fig 11: Percentage distribution of Alcohol Misuse Identification Disorder.

TABLE 3: Mean and standard deviation of baseline score of control and experimental groups.

N= 100

Variables	Control		Experimental		t value	df	P value
	Mean	SD	Mean	SD			
Anxiety	15.88	4.480	16.22	4.161	.546	49	.588 [NS]
Depression	20.00	7.065	20.26	6.505	.361	49	.720 [NS]
Stress	24.62	9.265	24.96	6.289	.220	49	.827 [NS]
AUQ	3.40	2.969	4.48	2.991	1.590	49	.118 [NS]

Table 3 shows the baseline characteristic of control and experimental group. The mean anxiety score of control group shows **15.88**and in experimental the mean score was **16.22.**To assess these variations t test was performed. Statistically, it indicates that there was no significant **(p = .588)** in anxiety score at the baseline in comparison between the two groups. At the baseline, the mean score of depression in control group shows **20.00**and **20.26** in experimental group, statistically it indicates there was no significant **(p = .720)** at the baseline of depression score. The mean stress score in control group shows **24.62** and **24.96**in experimental group, it shows no significant **(p = .827)** at the base line of stress score. The mean AUQ of control shows

3.40 whereas **4.48**in experimental group, statistically it shows there was no significant **(p =.118)** in AUQ score. It is interesting to note that before the intervention of music therapy, statistically at the baseline shows no significant in comparing the two groups in depression, stress, anxiety, and craving for alcohol. The baseline mean scores are shown in fig 12.
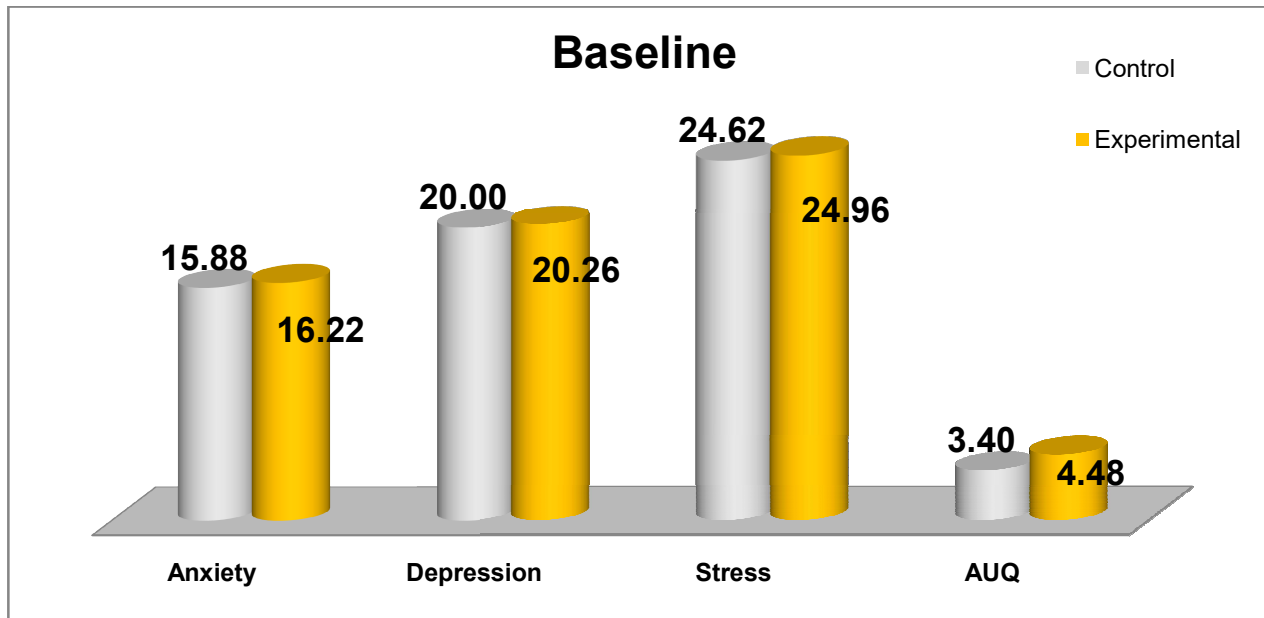
Fig 12: The baseline meansscore of control and experimental group.

TABLE 4: Mean and standard deviation of baseline and endpoint scores of control and experimental groups.

N= 100

VARIABLES / GROUPS		BASELINE		ENDPOINT		F	P value
		Mean	SD	Mean	SD		
DASS Anxiety Score	Control	15.88	4.480	13.76	3.905	25.511	.000
	Experimental	16.22	4.161	12.80	3.854		
DASS Depression score	Control	20.00	7.065	24.78	4.519	1.083	.347
	Experimental	20.26	6.505	19.44	6.038		
DASS Stress score	Control	24.62	9.265	19.76	7.444	20.703	.000
	Experimental	24.96	6.289	17.10	7.223		
AUQ Total	Control	3.40	2.991	3.40	2.969	564.48	.000
	Experimental	4.48	2.969	3.64	3.009		

Table 4 shows the baseline and endpoint of control and the experimental group of anxiety, depression, stress scores and Alcohol urge questionnaire total.

H$_1$: The mean anxiety score of the experimental group will be significantly reduced from the mean anxiety score of the control group after the intervention of music therapy.

H$_{01}$: There will be no significant difference in the mean anxiety scorefrom baseline to endpoint in the experimental group when compared to the control group.

In the control group at the baseline of anxiety, the mean score was 15.88 and at the endpoint it shows 13.76 whereas in experimental group at the baseline the mean score shows 16.22 and at the end point it has reduced to 12.80. To assess these variations, ANOVA repeated measure analysis was done. Statistically it reveals that there was reduction in the anxiety score in experimental group as compared to control group (**p= 0.000**). The results are shown in diagrammatic representation in fig 13. It is interesting to highlight the first hypothesis "The mean anxiety score of the experimental group will be significantly reduced from the mean anxiety score of the control group after the intervention of music therapy" was corroborated and null hypothesis is rejected.
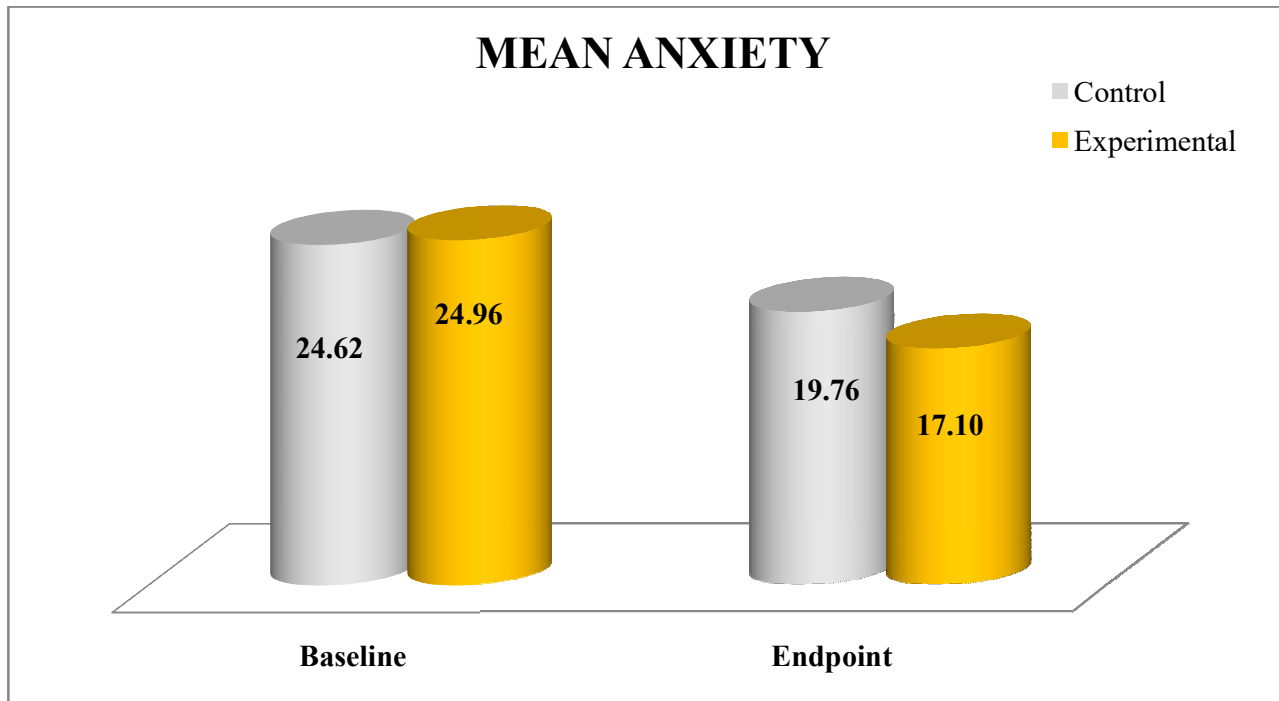
MEAN ANXIETY

Control
Experimental

24.62   24.96

19.76   17.10

Baseline   Endpoint

Fig 13: Mean anxiety score of the control and experimental groups at the baseline and endpoint.

H$_2$: The mean depression score of the experimental group will be significantly reduced from the mean depression score of the control group after the intervention of music therapy.

H$_{02}$: There will be no significant difference in the mean depression score from baseline to endpoint in the experimental group when compared to the control group.

The above table 4 shows the mean depression score in the experimental group was **20.26** initially and at the end of the intervention, in the experimental group the depression scores shows **19.44.** In the control group, the mean depression level was initially **20.00** and at the end of the intervention it shows **24.78**. To assess these variation ANOVA repeated measures analysis was done. Statistically, it indicates that there was no significant **(p= 0.347)**in depression levels in the experimental and in control group from the initial period at the end of the study. The results are shown in diagrammatic representation in fig 14. The second hypothesis "The mean depression score of the experimental group will be significantly reduced from the mean depression score of the control group after the intervention of music therapy." does not corroborate. Therefore, the null hypothesis is accepted.
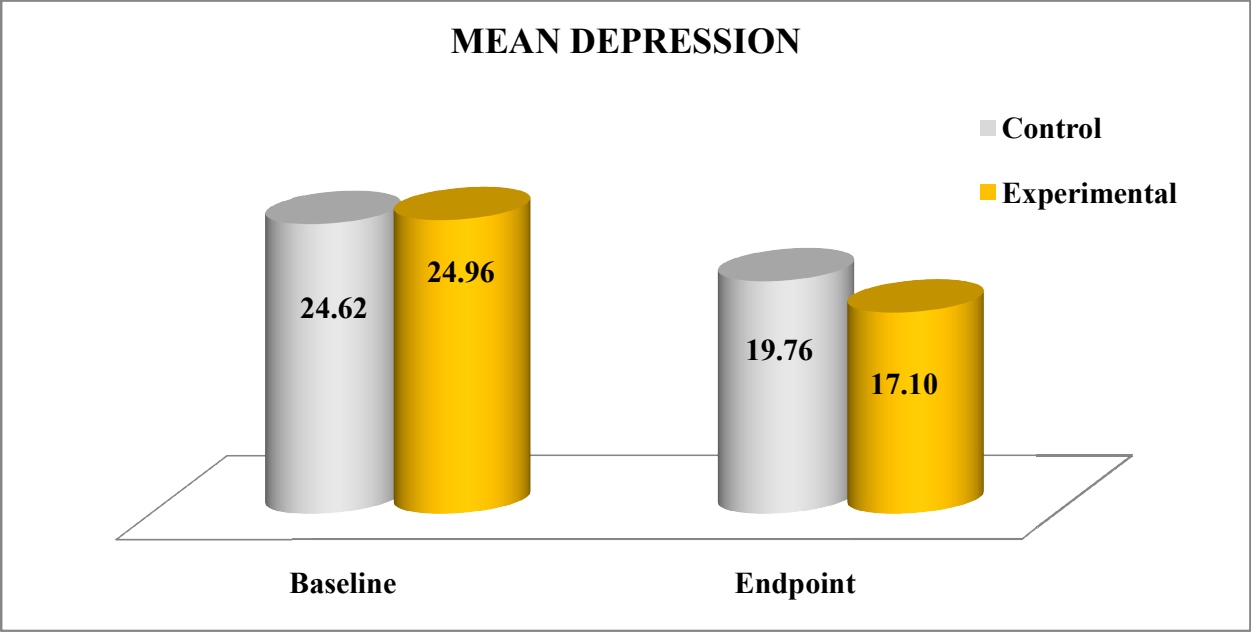
Fig 14: Mean Depression score of control and experimental groups at the baseline and endpoint.

H₃: The mean stress score of the experimental group will be significantly reduced from the mean stress score of the control groups.

H₀₃: There will be no significant difference in the mean stress score from stress score from baseline to endpoint in the experimental group when compared to the control group.

In the table 4 the mean stress score in the experimental group was **24.96** initially and at the end of the intervention, in the experimental group the stress was reduced from to **17.10.**However, in the control group the mean stress level was initially **24.62** and it shows **19.76** at the endpoint. To assess these variation ANOVA repeated measures analysis was done. Statistically, it indicates that there was a notable reduction of stress in experimental group from the initial period at the end of the study **(p= 0.000).** The results are highlighted in diagrammatic representation fig 15. Interestingly the third hypothesis "The mean stress score of the experimental group will be significantly reduced from the mean stress score of the control groups." was corroborated and null hypothesis is rejected.
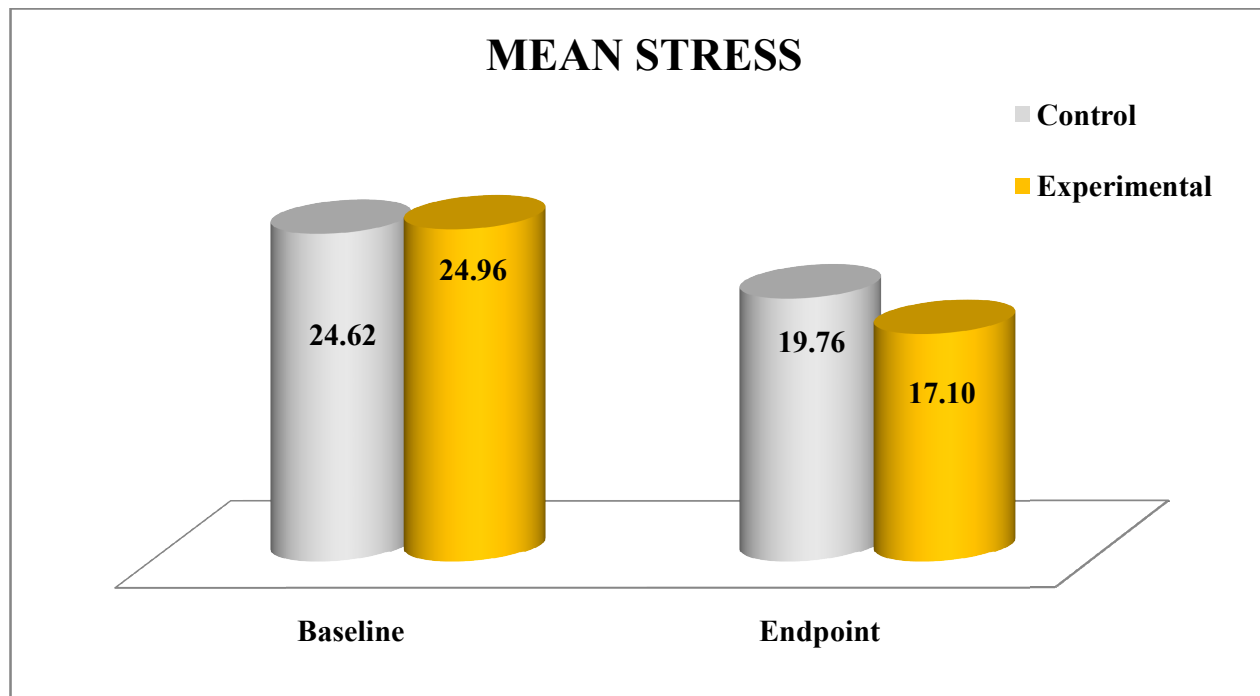
Fig 15: Mean Stress score of control and experimental groups at the baseline and endpoint.

H₄: The mean craving score of the experimental group will be significantlyreduced from the mean craving score of the control group after the intervention of music therapy.

H₀₄: There will be no significant difference in the mean alcohol urge questionnaire score from baseline to endpoint in the experimental group when compared to the control group.

In table 4, initially the AUQ level in the experimental group was **4.48**. At the end of the intervention, the craving was reduced from **4.48** to **3.64** in the experimental group. However, in the control group, the craving level remained same **3.40** at the baseline and endpoint. The results are shown in diagrammatic representation in fig 16. The fourth hypotheses "The mean craving score of the experimental group will be significantly different from the mean craving score of the control group" is supported.

Statistically it has shown that there is significant craving reduction in the experimental group as compared to the control group **(p= 0.000)**. Again it is interesting to note that in the experimental group at the end of the study, the craving for alcohol had reduced. Thus the hypothesis "The mean craving score of the experimental group will be significantlyreduced from the mean craving score of the control group after the intervention of music therapy" was corroborated and null hypothesis is rejected.
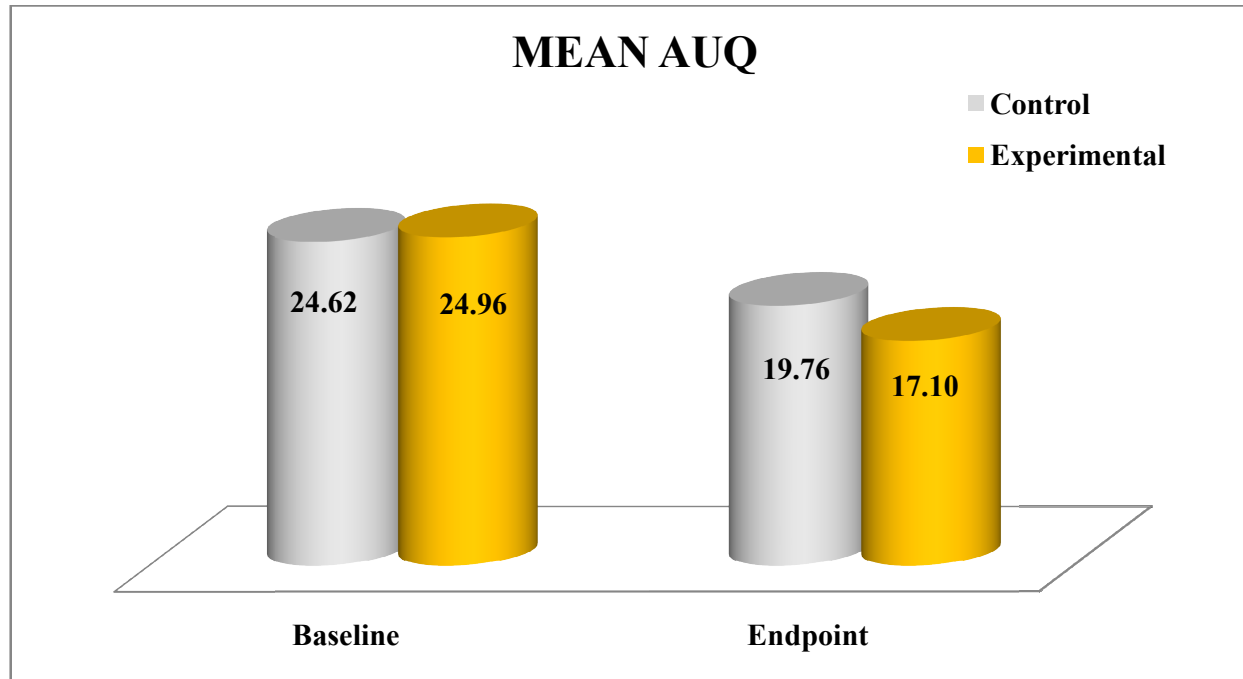
Fig 16: Mean AUQ scores of control and experimental groups at the baseline and endpoint.

Summary

The chapter explained the analysis and interpretation of findings of the study. The data gathered were summarized and used descriptive and inferential statistic for analysis.

The analysis has been organized and presented under various sections like mean age and frequency distribution on demographic variables and AUDIT variables, baseline characteristic between control and experimental group. In order to find the baseline characteristic paired t test was computed, no significant was found at the baseline between the two groups in depression, anxiety, stress, and Craving for alcohol. ANOVA was computed to compare the control and experimental group at the baseline and endpoint. No significant was found at the depression score. But there was significant reduction in anxiety, stress, and craving for alcohol after the intervention of music therapy.

Therefore, the investigator concluded that music therapy is an appropriate therapeutic intervention in reducing anxiety, stress, and craving for alcohol among clients with alcohol dependence.