

RESULTS AND DISCUSSION

Results obtained in this study have been discussed under the following heading:-

1. Frequency Distribution
2. t-ratio between the group's i.e. high dementia group and low dementia group.
3. Discriminant analysis

1. Frequency Distributions: - Frequency distributions for all the psychological variables included in the study were set up for the total sample (N=212). These distributions along with their means, standard deviations, skewness and kurtosis are reported in following tables. A Careful review of the distributions reveal that scores on most of the variables are more or less normally distributed. Distributions of scores on some of the indices were not very smooth.

Table No.5 – Frequency Distribution of Age

1. Age (AG)

Scores	Frequency
10-25	7
26-35	27
36-45	65
46-55	68
56-65	36
66-75	9

N= 212

M=46.34

SD=12.57

Table No.6- Frequency Distribution of Depression (DEP)

Scores	Frequency
10-19	10
20-29	22
30-39	92
40-49	83
50-59	4
60-69	1
	N=212

N=212

M=46.20

SD=12.63

Table no.7 -Frequency Distribution of lifetime and last 1 year (S (1) &S (LT))

Scores	Life time	Last 1 year
0-199	12	44
200-399	52	28
400-699	96	81
700-999	39	44
1000-1299	10	13
1300-1599	2	2
1600-1899	0	0
1900-2199	0	0
2200-2499	0	0
2500-2799	1	0

N=212

M=564.59 M=530.63

SD=244.07 SD=277.79

Table no.8:- Frequency Distribution of Dementia (DEM)

Scores	Frequency
0-4	39
5-9	49
10-14	98
15-19	23
20-24	2
25-29	1

N=212

M=9.71

SD=23.56

Table No.9-Frequency Distributions of CN, DIS, SC, SSS, AR, EA, PPS and PR.

	CN	DS	SC	SSS	AR	EA	PPS	PR
Score s	F	F	F	F	F	F	F	F
0-4	9	3	12	14	31	0	8	9
5-9	38	69	30	62	158	23	66	23
10-14	130	22	108	117	20	84	111	124
15-19	35	18	53	19	3	90	27	53
20-24	0	0	0	0	0	14	0	3
25-29	0	0	0	0	0	1	0	0
30-34	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0
N=	212	212	212	212	212	212	212	212
	M=11.5	M=4.99	M=11.4	M=10.3	M=6.88	M=14.3	M=10.70	M=12.4
	0		6	2		1		2
	SD=3.5	SD=4.3	SD=4.0	SD=3.6	SD=2.4	SD=3.9	SD=10.0	SD=3.8
		3	6	5	7	2	3	0

Table no.10- Frequency distributions of RM, RCM, MB, AC, DR, IR, RSP RDP, VR & REC

Score	RM	RCM	MB	AC	DR	IR	RsP	RDP	VR	RC
0-4	27	51	18	2	2	7	32	5	5	2
5-9	185	161	194	165	53	182	179	154	196	150
10-14	0	0	0	45	157	23	1	49	11	60
15-19	0	0	0	0	0	0	0	4	0	0
20-24	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
N=	212	212	212	212	212	212	212	212	212	212

M=6. M=5. M=6. M=8. M=10. M=7. M=6. M=8. M=7. M=8.
36 79 57 01 65 37 26 22 14 39
SD=1. SD=2. SD=1. SD=2. SD=2. SD=1. SD=1. SD=2. SD=1. SD=3.
66 13 39 12 31 84 83 59 42 22

Table no-11 -Frequency distribution of total of PGI memory scale (TS)

Scores	Frequency
6-15	1
16-25	1
26-35	3
36-45	5
46-55	17
56-65	34
66-75	91
76-85	53
86-95	6
96-105	1

N=212

M=68.71

SD=12.57

Means, standard deviations, skewness and kurtosis: - on the basis of dementia scores two groups were formed ;Group-1 (N-71) with low dementia scores and group-2 (N-71) with high dementia scores However, the skewness or deviation from the normal curve is not so marked as to warrant the exclusion of these indices from the analysis. The skewness and kurtosis reported in the study are quite affordable and do not distribute the interactions of the various variables of the two group's i.e. low dementia group and high dementia group. The distributions overall looked satisfactory for the use of simple, statistical analysis utilized in the present investigation.

TABLE:-12- Means, Standard deviations, Skewness and Kurtosis of variable AG

GROUPS		AG
I	N	71
	Mean	43.2535
	SD	11.2233
	Kurtosis	-0.703
	Skewness	-0.072
II	N	71
	Mean	49.5634
	SD	8.9086
	Kurtosis	-0.007
	Skewness	0.093

TABLE:-13- Means, Standard deviations, Skewness and Kurtosis of variable DEP

GROUPS		DEP
I	N	71
	Mean	35.6197
	SD	8.8566

	Kurtosis	1.135
	Skewness	-0.637
II	N	71
	Mean	37.7887
	SD	5.5004
	Kurtosis	0.276
	Skewness	-0.234

TABLE:-14 Means, Standard deviations, Skewness and Kurtosis of variables S(1)&S(LT)

GROUPS		S(1)	S(LT)
I	N	71	71
	Mean	403.7606	517.8310
	SD	302.0805	376.2978
	Kurtosis	2.118	11.972
	Skewness	1.100	2.449
II	N	71	71
	Mean	560.6901	597.2535
	SD	308.0212	259.3252
	Kurtosis	-1.006	4.194
	Skewness	0.002	1.299

TABLE:-15 Means, Standard deviations, Skewness and Kurtosis of variable DEM

GROUPS		DEM
I	N	71
	Mean	4.5070
	Std. Deviation	2.5235
	Kurtosis	-1.172
	Skewness	-0.052
II	N	71

	Mean	14.0563
	SD	2.6559
	Kurtosis	2.976
	Skewness	1.463

TABLE:-16 Means, Standard deviations, Skewness and Kurtosis of variables CN,DIS,SC,SSS,AR,EA,PPS & PR

GROUP		CN	DIS	SC	SSS	AR	EA	PPS	PR
I	N	71	71	71	71	71	71	71	71
	Mean	10.281	10.338	11.323	9.957	6.7714	13.8	10.4	10.9
		7	0	9	7		72	366	296
	Std. Deviation	3.6613	3.2467	4.7049	3.980	2.1002	3.54	3.79	4.48
					1		94	00	91
	Kurtosis	0.031	-0.649	-0.899	0.071	0.654	0.25	0.86	0.04
							0	8	3
	Skewness	-0.678	0.262	-0.339	-	-0.722	-	-	-
					0.428		0.50	1.02	0.48
							2	9	6
II	N	71	71	71	71	71	71	71	71
	Mean	12.267	10.901	11.169	10.31	7.2714	14.6	10.5	11.9
		6	4	0	27		338	352	718
	SD	2.8832	3.2608	3.4682	3.375	2.0776	4.22	3.25	3.63
					3		32	06	31
	Kurtosis	2.111	0.488	1.582	1.410	0.540	10.3	-	0.16

	is						46	0.09	4
	Skewness	-1.225	-0.640	-0.618	-0.756	-0.454	1.823	-0.479	0.389

TABLE:-17 Means, Standard deviations, Skewness and Kurtosis of variables RM,RCM,MB, AC, DR & IR

GROUPS		RM	RCM	MB	AC	DR	IR
I	N	71	71	71	71	71	71
	Mean	5.3070	4.6338	5.5915	7.7042	9.2394	7.5493
	Std. Deviation	0.8795	0.8322	1.4200	1.4677	1.4586	1.5380
	Kurtosis	1.368	4.673	3.493	-0.004	2.630	0.908
	Skewness	-1.352	-1.970	-1.454	0.533	-1.852	-0.508
II	N	71	71	71	71	71	71
	Mean	5.3803	4.3662	5.7183	7.6476	9.3521	7.0986
	SD	100.0193	1.1740	1.5509	1.4842	1.2660	1.7579
	Kurtosis	11.596	2.140	3.920	-0.703	3.374	-0.031
	Skewness	-2.913	-1.740	-1.734	0.391	-2.004	0.365

TABLE:-18- Means, Standard deviations, Skewness and Kurtosis of variables RSP,RDP,VR,REC&TS

GROUPS		RSP	RDP	VR	REC	TS
I	N	71	71	71	71	71
	Mean	4.7887	9.1690	7.5775	7.5977	69.5183
	Std. Deviation	0.8769	2.6294	1.0779	1.3249	600.0185
	Kurtosis	17.979	0.022	1.856	-0.956	-0.824
	Skewness	2.262	0.388	0.639	0.345	0.242
II	N	71	71	71	71	71

	Mean	4.6901	7.7606	6.7887	7.8169	66.6197
	SD	0.7288	1.7846	1.9706	1.6415	900.0117
	Kurtosis	5.000	4.173	6.281	6.335	4.547
	Skewness	-2.404	-1.257	-2.094	-1.452	-1.791

(ii) **t-ratio between the two group's i.e. high dementia group and low dementia group:** - t-ratio represents the probability of error involved in accepting our research hypothesis about the existence of a difference but our present t-ratio values clearly reports the significant difference among 14 variables used in the present study. Following table shows the various variables and their t-ratio value and the mean scores.

Table -19 .shows the mean scores of various variables of group I & group II and t-ratio of two groups.

S. no	Variables	Group I mean scores	Group II mean scores	t-ratio
1	AG	46.79	45.73	.5
2	DEP	36.41	37.11	.6
3	S(1)	469.07	610.59	2.7**
4	S(LT)	531.86	606.42	1.3
5	CN	10.28	11.59	2.2*
6	DIS	9.20	11.48	4.4**
7	SC	7.11	15.59	24.1**
8	SSS	9.33	11.07	3.0**
9	AR	6.24	7.69	3.6**
10	EA	13.38	14.35	1.6*
11	PPS	9.42	11.23	2.9**
12	PR	10.35	12.69	3.5**
13	RM	5.35	5.21	1.0
14	RCM	4.63	4.66	.2
15	MB	5.66	6.08	1.9*
16	AC	7.66	8.21	2.2*

17	DR	9.03	9.62	2.7**
18	IR	7.06	7.44	1.4
19	RSP	4.69	4.82	1.2
20	RDP	8.28	8.42	.4
21	VR	7.15	7.39	1.1
22	REC	7.68	8.46	3.1**
23	TS	67.20	70.32	2.7**

Detail descriptions of various variables are as under:-

1. AGE (AG):- Variable age is important for present study as alcoholic dementia is related to the exaggerated aging only. Results of the present study shows that t-ratio of this particular variable is found to be 0.5 that is non significant on both the levels. But if we analyze the results of discriminant analysis we find that the age with the co-efficient value of 0.145 which is highest in group-1(low dementia group) claims the best membership of low dementia group. As we have already mentioned that alcoholic-dementia is related to early aging and our results claims that high dementia group people belong to low age group as compare to low dementia group. So, our results of discriminant analysis support the hypothesis that chronic alcohol exposure leads to exaggerated aging. As many studies suggest that chronic alcohol abuse appears to accelerate a person's decline by approximately 10yrs, because the cognitive performance of alcoholics generally is comparable to that of non alcoholics who are 10yrs older. This age-related discrepancy is apparent even in alcoholics in their thirties (Noon berg et al., 1985). Another study with the strong evidence suggests dementia can occur at almost any age, although the incidence of this disorder is highest in older adults. Researchers found a prevalence of a little over 1% in people between the ages of 65 and 74; this rate increased to almost 4% in those aged 75 to 84, and more than 10%in people 85 and older (George, Landoman, Blazer & Anthony, 1991).

2. Depression (DEP):- Depression is a mental disorder where a person strongly faces the problems like feeling sadness, despair, and worthlessness. As far for our study is concern depression has a positive correlation with alcoholic dementia. So it is not

incorrect to state that alcoholics with high depression would be at high risk of alcoholic dementia. Depression is one of the strongest factors of our study which directly or indirectly leads to alcoholic dementia. The t-ratio of this particular variable is 0.6 which is non significant but in discriminant analysis it clearly shows the contribution although the coefficient value is comparatively lower that is 0.021. Even studies also studies also indicate that the increased risk of suicide and accidents among male subjects in various studies (Black et al., 1986) parallel the greatly increased risk of depression and mood experienced by older people with cognitive disorder (Hoaland, 1992; Teri, 1992). Moreover some cognitive disorder directly affects the brain areas that control people's experience and expression of mood (Borod, 1992). Related to this theory are some theories which clearly explain that people who are depressed, already suffers from mild cognitive disorder. It is very important to know the fact that stopping drinking does not stop depression from happening. *Former drinkers who have previously had an alcohol dependence problem are four times as likely to have major depression as former drinkers who never had an alcohol problem (Hasin & Grant, 2002).*

3. Stress: - Generally stress changes the whole life style of the individual and modifies the whole perspective of an individual towards life. But when we experience cognitive problems like poor concentration and memory, disturbed sleep and many mood related problems all indicates towards negative effect of stress on an individual. Anxiety and irritability are the common symptoms of stress observed by everyone. However, in the absence of proper treatment this would definitely leads to more serious issues like dementia and depression. In the present study it is stated that alcoholics with stress would be at high risk of alcoholic dementia. There are mainly two main compounds of stress in this study and their respective results are as follows:-

(i) Last one year (S (1)):- Variable known as last one year is a compound of stress. In this particular variable we are keen to investigate whether there were more stressful events in last one year as compare to life time. After observing the mean scores of two groups i.e. high dementia group and low dementia group we come to a conclusion that mean score of the last 1 year is less than life time and if we compare the two groups (high

dementia or low dementia group) we noticed that the high dementia group is high on stress or they experienced more stressful events. Studies also support that alcohol dementia patients. Experience lots of stress in their lives sometimes and this stress sometimes leads to alcoholic dementia. The t-ratio of this particular variable is 2.7** i.e. significant on 0.01 level of significance.

(ii) Life time (S (LT)):- Variable known as lifetime is compound of stress. In this particular variable we are keen to investigate whether there were any stressful events experienced at any time period in the life of the subjects. After observing the mean scores of two groups that is low dementia group, we come to the conclusion that mean scores of the last one year is less than life time and if we compare the two groups (high dementia group and low dementia group) ,we notice that the high dementia group is high on stress and they experience lots of stress in their lives sometimes stress is responsible for a stress progressive deterioration of brain function culmination in serious condition such as dementia and depression. The t-ratio of this particular variable is 1.3 that is non significant.

4. Coping styles: - coping style of an individual clearly reveals the nature and effects of stress on his or her life.the coping styles plays very significant role in the total response of an individual whether it is psychological and physiological response. Coping can be how we think about events or how we behave in response to stressors. *Both cognitive and behavioral coping strategies can be effecting in modifying the effects of stress (Lazarus, 1991).* Coping is a common factor influencing both dementia and alcoholism. Following are the various coping styles used in present study:-

(i) Confrontive coping (CN):- Variable known as confrontive coping is one of the coping styles. It is an aggressive effort to alter the situation and suggests some degree of hostility and risk taking behavior. If we compare the two groups on the basis of coping styles we come to know that the escape avoidance is high among high dementia group with the mean score of 11.59 and low among low dementia group with mean score of 10.28 .This type of aggressive behavior (confrontive coping) is very common among alcoholic dementia patients. The t-ratio of this particular variable is 2.2* i.e. significant

on 0.01 level of significance. Alcohol generally leads to aggression or violent behavior as a consequence of disturbed *.According to the disinhibition hypothesis, for example, alcohol weakens brain mechanism that normally restrain impulsive behavior, including inappropriate aggression (Gustafson,1994).By impairing information processing. Alcohol can also lead a person to misjudge social cues, thereby overreacting to a perceived threat (Miczek, 1997). Simultaneously narrowing of attention may lead to an inaccurate assessment of the future risk of acting on an immediate violent impulse (Cook&Moore,1993).*

(ii) Distancing (DIS):- Variable known as distancing describe cognitive efforts to detach one self and to minimize the significance of the situation. In this particular variable the mean score of low dementia group is 9.20 and 11.48 high dementia group which is high as compare to the low dementia group. It is always seen that alcohol intake is a type of coping in which the alcoholic distance himself from the hard-core reality of the world. The t-ratio of this particular variable is 4.4** i.e. significant on 0.01 level of significance.

(iii). Self-Controlling (SC):- self controlling explains the effort of an individual to regulate one's feelings and actions in certain situation. If we compare the two groups based on mean scores of this particular variable, the group II (high dementia group) scored high which is highly controversial as it is always seen that self controlling is very poor in alcohol dementia patients. Due to aggressive behavior and emotional imbalance it is quite difficult to maintain self control. The t-ratio if this variable is 24.1** which is significant on 0.01 level of significance.

(iv) Seeking Social Support (SSS):- It explains efforts to seek support in any form like informational support, tangible support and emotional support. The mean scores of this variable between both the groups (high dementia group & low dementia group) show that group-II is slightly high on this variable with the mean score of 11.07. Scores indicates that high dementia group or alcohol dementia patient's expects support from the society. The t-ratio of this particular variable is 3.0** i.e. significant on 0.01 level of significance.

(v) Accepting responsibility (AR):- It acknowledges one's own role in the problem with a concomitant theme of trying to put things right. Mean scores of this particular variable of both the groups (high dementia group & low dementia group) shows that in accepting responsibility both the groups are almost same. This type of coping is always very rare among alcohol dementia patients. The t-ratio of this particular variable is 3.6** i.e. significant on 0.01 level of significance.

(vi) Escape avoidance (EA):- It explains the thinking and behavior which is generally to avoid pain and problematic situation. Mean scores of this particular variable are high in both the groups (high dementia group & low dementia group) which suggests that the escape avoidance is highly acceptable coping among alcoholics the t-ratio of this particular variable is 1.6* which is significant on only one level i.e. on 0.05 level of significance.

(vii) Planful Problem Solving (PPS): -when someone deliberately solves the problem and makes efforts to change the situation is known as planful problem solving. Mean scores of planful problem solving shows that both the groups are high on this particular variable. The t-ratio of this variable is 2.9** i.e. significant on 0.01 level of significance.

(viii) Positive reappraisal (PR):- it explains efforts to create positive thing by focusing on positive side of the situation. It also has a religious significance. Mean score of PR are 10.35 in low dementia group and 12.69 in high dementia group which is quite high as compare to other coping styles. This shows the religious elements among alcoholics. They think everything goes according to god's wish and god always helps us. This also reflects the external locus of control of alcoholics the t-ratio of this variable is 3.5** i.e. significant on 0.01 level of significance.

4. Memory: - Alteration in memory and identity can also have clearly organic causes, including brain injury, medical conditions and substance misuse. These organic disorders fall into two categories i.e. Amnestic disorder, Which primarily affect memory and dementias, which affect both memory and cognitive skills? In this present study we have taken memory as one of the major causes of alcoholic dementia. As we knows that loss of

memory is one of the symptoms of alcohol dementia and sometimes memory loss further leads to the risk of dementia. It is a common perspective or view point of every one to relate wenicke korsakoff syndrome with alcohol dementia. The main distinguishing factor which separates the two cognitive disorders is that Wernicke- korsakoff: syndrome is characterized by restricted eye movement and normally has an acute onset while alcohol dementia has a gradual one (health – care.net, 2008). Various subtest of memory which are taken in the present study to know about the exact area of memory loss are discusses as follows:

(I) Remote Memory (RM): The mean score of this particular subtest of both the groups (high-dementia and low-dementia) are 5.35 & 5.21 which are almost same. This shows that there is no exact difference between these two groups on the basis of remote memory. The t-ratio value of this particular variable is 1.0 which is a non significant value.

(II) Recent Memory (RCM): The mean score of this particular subtest of both the groups (high-dementia and low-dementia) are 4.63 & 4.66, which are almost same. This shows that there is no exact difference between these two groups on the basis of recent memory .The t-ratio value of this particular variable is 0.2 which is a non significant value.

(III) Mental Balance (MB):- Mental balance is one of the subtests of the PGI memory scale. It consists of alphabet and counting backward. The mean score of this particular subtest shows that both the groups performed almost in a different manner. Low dementia group scored 5.66 and high dementia group scored 6.08 scores on an average. The t-ratio value of this particular variable is 1.9* which is significant on 0.5 level of significance.

(IV) Attention Concentration (AC):- Attention concentration is one of the subtests of the PGI memory scale. In this particular test attention and concentration of the subject is tested with help of digits, the subject has to reproduce the digit, immediately after the representation. The mean scores of the subject show that both the groups i.e. low

dementia group and high dementia scored almost equally in this particular test that shows that there is very less difference in both the groups in respect to the attention concentration the t-ratio value of this particular variables is 2.2*that is significance on 0.05 level of significance .

(V) Delayed recall (DR):-It is one of the subtests of the PGI memory scale. It measure the subjects accuracy in producing the material after the pause of 1min. the mean scores are almost same of this particular variables in both the groups the t-ratio value of this variable is 2.7** which is significant on 0.01 level of significance

(vi) Immediate recall (IM):- The mean score of this particular subtest of both the groups (high-dementia and low-dementia) are 7.06 and 7.44, which are almost same. This shows that there is no exact difference between these two groups on the basis of immediate recall the t-ratio value of this particular variable is 1.4 which is a non significant value.

(vii) Retention for similar pairs (RSP):- The mean score of this particular subtest of both the groups (high-dementia and low-dementia) are 4.69 and 4.82, which are almost same. This shows that there is no exact difference between these two groups on the basis of retention for similar pairs the t-ratio value of this particular variable is 1.2 which is a non significant value.

(viii) Retention for dissimilar pairs (RDP):- The mean score of this particular subtest of both the groups (high-dementia and low-dementia) are 8.28 and 8.42, which are almost same. This shows that there is no exact difference between these two groups on the basis of retention for dissimilar pairs the t-ratio value of this particular variable is 0.4 which is a non significant value.

(ix) Visual retention (VR):- The mean score of this particular subtest of both the groups (high-dementia and low-dementia) are 7.15 and 7.39, which are almost same. This shows that there is no exact difference between these two groups on the basis of Visual retention the t-ratio value of this particular variable is 1.1 which is a non significant value.

(x) Recognition (REC):-Recognition is the one of the subtests of the PGI memory scale. It measures the recognition of the subjects with the help of pictures mean scores of this test shows that the high dementia group scored well in this test, which is contradictory. The t-ratio value of this variable is 3.1** i.e. significant on 0.01 level of significance.

(xi) Total score (TS):- The total score of PGI memory scale which denotes the overall performance of the subject in the memory scale. Total score determines the total memory level of the subjects. Again the mean scores shows that the high dementia group is high on the memory scale that means their memory is good as compare to the low dementia group the t-ratio of this particular variables is 2.7** i.e. significant on 0.01 level of significance.

The Results of factor/variable known as memory are highly contradictory. we were expecting at the time of formulating the hypothesis that those alcoholics who are high on dementia would score low in memory .But we find very less difference between alcoholics with high dementia scores and alcoholics with low dementia scores. To investigate it further we have applied discriminant analysis also.

The main objective of this study is to find out those variables, which directly or indirectly play a contributing role in alcoholic dementia. After all the measurements and analysis, we come to know that depression and stress are the most influential variables which trigger the risk of alcoholic dementia. but still we cannot totally rely upon t-ratio and mean scores,because we are well aware of the fact that in real life situation variables never exists in isolation, they always work in collaboration or group that is why we have done another important analysis known as discriminant analysis.

(3) Discriminant Analysis: - Discriminant Analysis explores the differences between groups created by values of independent (grouping) variables. Discriminant Analysis simultaneously analysis more than one independent variable and it identifies pattern of values of those independent variables. It determines a linear combination of the independent variables that can best predict the group membership. In the present study,

our basic concern is to explore that variable which helps to contribute to alcoholic dementia, For this very cause, we took help of discriminant Analysis to explore whether groups are significantly different or not.

Table No.20 Showing variables and their discriminant Coefficient associated with the two groups.

Group 1			Group II		
Sr. No.	Variables	Coefficient	Sr. No.	Variables	Coefficient
1.	AG	.145	1.	VR	.230
2.	S(1)	.135	2.	IR	.199
3.	EA	.116	3.	TS	.199
4.	S(LT)	.066	4.	PPS	.170
5.	AR	.047	5.	RSP	.169
6.	DIS	.047	6.	RCM	.122
7.	SSS	.037	7.	REC	.114
8.	PR	.027	8.	MB	.104
			9.	RM	.069
			10.	RDP	.065
			11.	CN	.028
			12.	DEP	.021
			13.	SC	.071
			14.	DR	.008
			15.	AC	.005

Wilk's Lambda = .194

Significant on - 0.01 levels

According to the above given results, it is clear that the present Wilk's lambda value is .194 which is significant on 0.01 level. Results are highly favorable as they clearly report the difference between the two group's i.e. low dementia group and high dementia group.

Now, our basic concern is to find out which are the most important variables in both the groups because of which the two groups are differentiated. First, we will discuss **group-I** i.e. low dementia group. Subjects belong to this group are also alcoholics but they scored low in dementia scale. After discussing the variables individually in t-ratio, now we are interested to know, that cluster of independent variables, predict best group membership. In group -I we can see variables like Age(AG) last one year (S(1)), Escape Avoidance (EA), life time(S(LT)), Accepting Responsibility (AR), Distancing (Dis), Seeking social support (SSS), and Positive Reappraisal (PR) which are responsible for the lower risk of dementia.

If we analyze Age according to discriminant Analysis the age is a true member of group-1 that means that subjects belongs to group-II belongs to low age group which is highly favorable for our present study as studies indicate that, generally people believe that dementia is related to elderly people not to middle age or younger people. But this is not true in the case of alcohol dementia as it can happen to anybody at any age as early as thirty(health-cares.net, 2008) .Now days it's very common to see people who are afflicted with alcohol dementia age ranging from fifty to seventy (Health-cares.net, 2008).

(1) Group-I- It includes members like stress and coping styles ((S(1)),(S(LT)), EA, AR, DIS, SSS & PR) which clearly shows that stress and coping does not help built a relationship between dementia and alcoholism, although it is slightly contradictory, as many studies support the fact-that stress is one of the causes of dementia. As Maier & Watkins (2000) clearly states that, the stress directly affects our immune system and immune system affects our behavior, mood and cognitive functioning. But if we compare the discriminant results with t-ratio we can see that L1Y, DIS, SSS, AR and PR are those independent variables which are significantly different on both the levels (0.05 & 0.01).

Which shows that group-II scored high on these variables which is quite contradictory. Out of these two analyses (t-ratio and discriminant analysis) we consider discriminant analysis as most appropriate analysis. Moreover variables never exist in isolation in real life situation. They always work in collaboration or group.

After discussing **group-I** and its independent variable we come to know that stress, age and coping styles do not much contribute to alcoholic dementia. The t-ratio and discriminant analysis both have slightly different results but both the analysis totally support that coping style is not a strong factor, which contribute to alcoholic dementia.

Group-II is major concern of our study. The Group consists of alcoholics who scored high in dementia scale. That means they have greater risk of an alcoholic dementia. Alcoholic dementia, which is sometimes related with wernicke-korsakoff syndrome, is a type of dementia specially developed due to excessive alcohol consumption which causes brain damage and sometimes permanent memory loss. Alcohol related dementia and alcohol-induced persisting dementia are some common terms used for alcohol dementia. (Kapaki, 2006)

According to discriminant-coefficient associated with group-II, it is clear that memory and depression (VR, IR, TS, RSP, RCM, REC, MB, RM, RDP, DEP, DR, and AC) are the two major independent variables which contribute to alcoholic dementia. If we look upon depression (DP) although the coefficient value of this particular variable is in discriminant analysis is very low that is 0.021 still there is a strong correlation between dementia and depression and on other hand depression is also highly correlated with alcoholism .These results clearly shows that depression is a strong factor which plays an important role in dementia alcoholism relationship, as in one of the studies researchers found in caused risk of depression suicide and accidents among male subjects (Black et al., 1985) parallels the greatly increased risk of depression and other mood disorder experimented by older people with cognitive disorder (Hoaland, 1992; Teri, 1992). *Elderly persons with depression appear to be at greater risk of developing dementia, According to University of Massachusetts Medical School researchers Dr. Jane Saczynski elderly persons those who are suffering from depression seems to be at greater risk of developing dementia .Dr Jane and her team screened 949 people who had participated in the Framingham Heart Study, with an average age of 79, who were*

dementia free at the start of the study. At the start of the study when tested for symptoms of depression, 13% were classified as having depression. After following for 17 years the patients, 164 people had developed dementia, with 136 of these specifically having Alzheimer's disease. The researchers found that almost 22% of the people with depression at the start of the study developed dementia, compared with 17% of those Alcoholics who had not had depression. This represents a 70% increased risk for developing dementia in those who initially had depression. The researchers say it is impossible to determine from their research whether depression actually causes dementia, but there are several different ways that depression might potentially affect the risk of dementia. Saczynski suggests that brain inflammation caused by depression or increases in certain proteins in the brain that occur with depression might be factors. In addition, it is possible that certain lifestyle factors associated with depression - such as poor diet, lack of exercise or decreased social time - could play a role, she said More over some cognitive disorder directly affects the brain area that control people's experience and expression of mood (Borod, 1992) depressed people may already has mild to moderate cognitive impairment and will reach towards dementia earlier (Jorm et al., 1991) and also the depression may an early reaction to recognized cognitive impairment (Bassuk et al., 1998; Gurgling et al., 2000) on other hand behavioral perspective assures that depression leads to alcoholism as whenever a person faces depression he uses alcohol to reduce the tension. In the light of above studies we can say that depression best predict the membership of high dementia group.

Secondly, we have also studied memory loss (VR, IR, TS, RSP, RCM, REC, MB, RM, RDP, DR, and AC) which is one of the major contributing factors of alcohol dementia. As we know that loss of memory is one of symptoms of alcohol dementia and sometimes memory loss further leads to risk of dementia. If we look at the co-efficient values of variables like visual retention (VR), immediate recall (IR), total score (TS), retention of similar pairs (RSP), recent memory (RCM), recognition (Rec), mental balance (MB), remote memory (RM) and retention dissimilar pairs (RDP) we come to know that they are quiet high. But as far our present study is concerned we are interested in the short term memory or working memory and studies also support that alcohol dementia affects the working memory of the patients. While simultaneously performing

complex tasks working memory allows one to keep things in mind (Baddeley et al., 2009): *It involves a system for the temporary storage and manipulation of information, forming a crucial link between perception and controlled action. (Baddeley, A., 1998). Evidence suggests that working memory involves three components: the central executive who controls attention, the visuo-spatial sketchpad which holds and manipulates spatial information, and the phonological loop which performs a similar function for auditory and speech-based information. (Baddeley, A., 1998).* Alcohol consumption has substantial, measurable effects on working memory, though these effects vary greatly between individual responses. Little is known about the neural mechanisms that underlie these individual differences (Paulus et al., 2006). It is also found that alcohol impairs working memory by affecting mnemonic strategies and executive processes rather than by shrinking the basic holding capacity of working memory. Isolated acute-moderate levels of alcohol intoxication do not profoundly physically alter the structures which are critical for working memory function, such as the frontal cortex, parietal cortex, anterior cingulate, and parts of the basal ganglia (Saults, J.S., Cowan, N., Sher, K.J., & Moreno, M.V., 2007). One of the finding regarding the effects of alcohol on working memory points out that alcohol reduces working memory only in individuals with a high baseline working memory capacity (Finn et al., 1999) suggesting a universal suffering of working memory functionality is non-existent. Alcohol appears to impair the capacity of working memory to modulate response inhibition. (Finn, P.R. et al., 1999) Alcohol disinhibits behaviour, but only in individuals with a low baseline working memory capacity (Finn, P.R. et al., 1999) An interesting finding is that incentive to perform well with working memory measurement tasks while under the influence of alcohol 'does in fact have some effect on working memory, in that it boosts scores in rate of mental scanning and reaction time to stimulus, but did not reduce number of errors compared to subjects with no incentive to perform well (Grattan-Misci, K.E. & Vogel-Sprott , M, 2005). Even acute alcohol intoxication (a blood alcohol concentration of 0.08-0.09%) produces a substantial impairment of working memory processes that require mnemonic rehearsal strategies (Saults, J.S., Cowan, N., Sher, K.J., & Moreno, M.V.,2007). Alcohol is less likely to impair a working memory task that does not rely on memory rehearsal or associated mnemonic strategies (Saults, J.S., Cowan, N., Sher, K.J.,& Moreno, M.V.,2007). Because

of this, working memory is very susceptible to falter when a person is participating in tasks involving retention concerning auditory and visual sequences (Saults, J.S., Cowan, N., Sher, K.J., & Moreno, M.V., 2007) real world and interesting example of this is failure of guitarists or other musicians performing concerts to cue in on auditory patterns and make it known that their performance is hindered by intoxication.

Studies, time to time, remind that approximately 5 percent of people with chronic alcoholism develop the severe amnesic disorder known as korsakoff's syndrome. Usually people who are 40 and 80 years old they suffer from brain disorder due to thiamine deficiency caused by wernicke-korsakoff syndrome. Alcoholism normally cause deficiency or malnutrition especially vitamin B-1 (thiamine). If we compare our discriminant analysis results with t-ratio results we can see that both the groups scored almost equal in depression i.e. high on depression and t-ratio of memory shows that only variables like AC, DR, RC, and TS are significantly different on 0.01 level of significance and rest are not significantly different. It is a common perspective or view point of every one to relate wernicke korsakoff syndrome with alcohol dementia. The main distinguishing factor which separates the two cognitive disorders is that Wernicke-korsakoff: syndrome is characterized by restricted eye movement and normally has an acute onset while alcohol dementia has a gradual one (health – care.net, 2008). There is a evidence which suggest they might be linked despite these differences one case of this exhibited a patient who had repeated episodes of wernicke-korsakoff's syndrome. (Moriyama et al., 2008).In reference to the above studies it is clear that variables like Delayed recall and Attention concentration due to having very low co-efficient values indicates that alcoholics with high dementia scores or alcoholics of group II performed poorly in the delayed recall and attention concentration. Both attention concentration and delayed recall belong to the short term memory and working memory. These findings clearly prove our hypothesis that alcoholics with high dementia would perform poorly in short term memory.

Moreover, the mean scores of both the groups are almost same in depression .i.e. High on depression but we consider discriminant analysis as the most appropriate analysis. So we can say that depression and memory are two most important factors which increase the risk of alcoholic dementia.

In the end by summing up all the valuable factors we can able to say that depression, memory and sometimes stress are the most important factors which contribute to alcoholic dementia. But still there are many facts about alcoholic dementia which is vague for us. In the diagnostic and statistical manual of mental disorders4th edition (DSM-IV) alcoholic dementia is listed, but there is concern that some of the terminology used to describe alcohol dementia and those at risk for it is vague. (Y, Moriyama et al., 2008). Other problems related to the study of alcoholic dementia are difficulties related to dementia and types o dementia which are yet not fully explained.