

CHAPTER IV

***** ANALYSIS AND INTERPRETATION
OF THE DATA

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Introduction

This chapter deals with the presentation of results and their interpretation. As mentioned in a previous chapter, a sample of 300 cases was administered the Self-esteem Scale in which the subjects were asked to make two sortings of the items - one for the perceived self and the other for the ideal self. The self-ideal congruence was computed for each subject by correlating the two sets of scores. The subjects were then rank-ordered on the basis of the degree of self-ideal congruence, with the subjects obtaining higher degrees of congruence occupying top positions. In order to form two extreme groups 50 subjects from the top and 50 subjects from the bottom were selected. In the case of the top group, the range of the self-ideal correlation

was from .46 to .84. In the case of the low self-esteem group, the range of the self-ideal correlation was from -.21 to +.27. Each of these two main groups was further subdivided into an experimental group and a control group in such a way that the average degree of the self-ideal congruence was approximately the same in both the groups. The high self-esteem experimental group will hereafter be designated as EH group and the control group as CH group. Similarly, the low self-esteem groups will hereafter be designated as EL and CL groups respectively. All the four groups thus formed were also administered, as stated earlier, Depressive Affect Scale, Neurotic Scale and Anxiety Scale. The two experimental groups were then subjected to group counselling interviews. The interviews were conducted so as to enable the subjects to probe deeper into their own problems, to gain self-confidence and to rid themselves of the problems.

It was assumed that after the counselling interviews the experimental subjects would show improvement in their over-all self-esteem. It was also assumed that the amount of improvement would be considerable in the case of EL group. It was expected that the subjects' depression, neuroticism and anxiety would decrease under the influence of counselling interviews.

First, the self-ideal congruence obtained by the members of each of the four groups will be examined separately for each group. Secondly, the mean self-ideal correlations obtained by the EH group before and after counselling will be compared with that obtained by the EL group before and after counselling interviews. In order to obtain mean self-ideal congruence for each group, all the correlations were transformed into Fisher's Z scores. These scores were then averaged and then converted back into correlation. This will be followed by the discussion of the individual performance and average performance of subjects on Depressive Affect, Neurotic and Anxiety Scales. The scores on these scales obtained in the pre-test and post-test by the four groups will be compared. In order to study the difference in performance between the experimental group and the control group on self-esteem, Depressive Affect, Neurotic and Anxiety Scales, covariance analysis was used for the high self-esteem as well as for the low self-esteem groups. The qualitative changes in behaviour consequent upon counselling interviews are in no way less important in comparison to the behavioural changes expressed in quantitative terms. The qualitative changes are discussed at the end of this chapter. The qualitative aspect of behaviour change is also

dealt with separately in the following chapter by taking five individual cases and studying them exhaustively. Thus in this chapter the quantitative results obtained by administering the instruments are presented and discussed and then the qualitative changes that took place during counselling interviews are examined.

Analysis of Self - ideal Congruence

Sortings made by each subject for self and ideal self in the pre-test and the post-test are presented and discussed here. (Tables 1 and 2)

Each of the four main columns in Table 1 shows self-ideal correlations obtained by the subjects

Table 2 which is derived from Table 1 shows the percentage distribution of the subjects falling within each range of self-ideal correlations in the pre-test and the post-test.

As can be seen from Table 1 the pre-counselling self-ideal correlations in the case of EH group range from .46 to .84, with a mean correlation of .62. The corresponding range of self-ideal correlations obtained after counselling interviews is from .49 to .86, with a mean correlation of .67. The lowest self-ideal correlation of .46 before

Table 1 : Performance of the Subjects on the Self-esteem Scale

	EH		CH		EL		CL	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
1	.69	.69	.52	.54	-.05	.29	-.01	.05
2	.50	.53	.53	.55	.20	.55	-.12	.27
3	.60	.82	.52	.59	.20	.36	-.02	.27
4	.59	.55	.50	.52	-.08	.60	.03	.14
5	.46	.65	.52	.50	.10	.67	.02	.16
6	.48	.52	.59	.53	.18	.62	.13	.09
7	.70	.55	.59	.57	.04	.47	.03	.27
8	.52	.63	.64	.56	-.16	.62	.07	.15
9	.52	.52	.56	.60	.06	.46	.11	.35
10	.64	.56	.60	.50	.11	.43	.10	.25
11	.54	.58	.50	.53	-.02	.61	.10	.28
12	.72	.57	.65	.68	.14	.58	.27	.09
13	.51	.57	.50	.52	.10	.49	.06	.08
14	.71	.81	.53	.50	-.21	.55	.12	.08
15	.74	.56	.55	.62	-.02	.59	.15	.22
16	.59	.81	.58	.46	.10	.41	-.11	.17
17	.57	.49	.54	.61	.19	.51	.14	.43
18	.70	.52	.75	.55	-.11	.52	.19	.32
19	.84	.59	.70	.80	.08	.49	.05	.46
20	.55	.60	.59	.61	.22	.33	-.02	.03
21	.68	.69	.62	.66	-.11	.21	.09	.10
22	.63	.86	.64	.73	-.12	.37	.18	.37
23	.51	.80	.66	.61	.17	.50	.02	.34
24	.48	.79	.68	.68	.01	.42	.03	-.01
25	.70	.81	.64	.76	.22	.63	.18	.36
Mean r	.62	.67	.59	.60	.05	.50	.07	.22

EH - Experimental high self-esteem group
 CH - Control high self-esteem group
 EL - Experimental low self-esteem group
 CL - Control low self-esteem group

Table 2 : Percentage Distribution of the Subjects
on the Self-esteem Scale

Range of Correlations	EH		CH		EL		CL	
	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test
.85 to .89		4						
.80 to .84	4	20		4				
.75 to .79	4	4	4	4				
.70 to .74	20	-	4	4				
.65 to .69	8	12	12	12		4		
.60 to .64	12	8	20	20		20		
.55 to .59	16	36	24	20		16		
.50 to .54	24	12	36	32		12		
.45 to .49	12	4		4		16		4
.40 to .44						12		4
.35 to .39						4		12
.30 to .34						8		8
.25 to .29						4	4	20
.20 to .24					16	4		4
.15 to .19					12		16	12
.10 to .14					20		24	8
.05 to .09					4		16	20
.00 to .04					8		20	4
-.0 to -.04					8		12	4
-.05 to -.09					12			
-.10 to -.14					12		8	
-.15 to -.19					4			
-.20 to -.24					4			

EH - Experimental high self-esteem group
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counselling has changed to .49 after counselling. Similarly the highest self-ideal correlation of .84 obtained before counselling has changed to .86 after counselling. Thus the range of self-ideal correlations is shifted to a higher level due to the influence of counselling interviews.

Table 2 reveals that in the EH group 36 percent of the subjects fall within the range of .45 to .54 before counselling interviews, whereas only 16 percent of the subjects fall within the same range after counselling interviews. This means that 20 percent of the subjects moved to the higher range of correlations. Moreover there are only eight percent of the subjects whose self-ideal congruence is more than .74 before counselling interviews, whereas there are 28 percent of the subjects whose self-ideal congruence is more than .74 after counselling interviews. This shows that the number of subjects showing improvement in the level of self-esteem has slightly increased.

In terms of frequency, there are 15 subjects in the EH group who have shown improvement in their self-esteem in the positive direction. From the remaining subjects one subject is unaffected by counselling interviews and nine subjects have shown change in their self-esteem in the negative direction. Of these nine subjects showing negative change, there are five subjects whose initial self-ideal congruence was .70 and above. The lowering of the self-esteem of these

five subjects was quite considerable as compared to that of other four subjects. The item sortings made by such subjects are regarded as 'defensive sortings'. The subjects thus try to give a distorted picture of themselves so that it appears as if they were well-adjusted when actually they are not. Investigators like Rogers and his associates have paid considerable attention to this kind of defensive sortings, because it raises some doubts as to the validity of self-reports. Haigh (1949) has made special studies of such cases and has reported that defensive behaviour may assume many forms. It has also been found that some cases show an increase in their defensive behaviour whereas others do not. Haigh does not give any importance to such cases, because as he thinks such defensive sortings may be intentional on the part of the subject. In another study it has shown that the degree of perceptual defense was much less in subjects showing high agreement between self-description and descriptions made of them by other persons. Thus the phenomenon of defensive behaviour seems probable and it occurs in some subjects showing initially a high degree of self-ideal congruence. No attention has, however, been paid to these subjects in this investigation. On the whole it appears that a good number of cases shows improvement in the self-esteem when subjected to counselling interviews.

The initial range of self-ideal correlations in the case of CH group is from .50 to .75 and the range of self-ideal correlations in the post-test is from .46 to .80. The mean self-ideal congruence is .59 in the pre-test and .60 in the post-test.

Referring to Table 2, it can be said that four percent of the subjects in the CH group have obtained self-ideal correlations of .75 or more in the post-test, whereas eight percent of the subjects have obtained the self-ideal correlations of .75 or more in the post-test. The number of subjects falling within the range of .45 to .54 in the pre-test has remained unchanged in the post-test.

There are 15 cases in the CH group who have shown some improvement in the positive direction, nine cases have shown change in the negative direction and one case has shown no change. There is only one subject in the CH group whose initial self-ideal correlation ^{is} ~~es~~ .75 and whose performance is very poor in the post-test.

Although the number of subjects showing change in self - esteem in positive direction is the same in both EH and CH groups, The amount of change in the EH group is higher than that in the CH group. One thing that

and CH

can be said about the results of the EH_A groups on self-esteem is that the EH group shows slightly better improvement than the CH group. In terms of mean self-ideal congruence also the EH group shows slight improvement over the CH group. The mean of the CH group has remained fairly stable over the period of counselling interviews. The results of the EH and CH groups are quite in accordance with expectations. The subjects in the EH group had initially a high level of self-ideal congruence and therefore they are not likely to show any appreciable change in their initial level of performance. This may be due to the fact that the members of the EH group were placed with the members of the EL group for counselling interviews. Although considerable discussion took place among the members on certain situational problems during counselling, high self-esteem subjects did not benefit to any appreciable extent. The reason for this may be that the subjects of the high self-esteem group had much to offer by way of suggestions to the solutions of problems which are mostly faced by low self-esteem subjects. It is not possible to make any comments on the outcome of counselling treatment, if all the high self-esteem subjects were treated separately in small groups. But it can reasonably be assumed that, had the high self-esteem subjects been treated separately by presenting

situations most appropriate to them, there would have been some improvement in the self-ideal congruence. The effect of separating high self-esteem subjects from the low self-esteem subjects may be that the low self-esteem subjects might not have shown as much improvement as they did in the company of high self-esteem subjects.

The third main column of the EL group in Table 1 reveals that the range of self-ideal congruence before counselling interviews is from $-.21$ to $+.22$ with a mean of $.05$, whereas after counselling interviews, the range of self-ideal congruence is from $.21$ to $.67$ with a mean of $.50$. Thus the lowest self-ideal correlation of $-.21$ before counselling has changed to $+.21$ after counselling interviews. Similarly, the highest correlation of $.22$ before counselling has changed to $.67$ after counselling.

As far as the number of subjects showing improvement is concerned, all the 25 subjects in the EL group have shown improvement in their self-esteem in the positive direction. Nine cases with a negative self-ideal correlations before counselling have shown remarkable improvement in their self-esteem as a result of counselling interviews.

In the EL group, as seen from Table 2, 84 percent of the subjects fall within the range of $-.24$ to $+.19$ before

before counselling interviews, whereas after counselling interviews 96 percent of the subjects have obtained the self-ideal correlations between $+ .25$ to $+ .69$. This clearly indicates that there has been a considerable improvement in the self-ideal congruence as a result of counselling treatment.

In the case of CL group the range of self-ideal congruence in the pre-test is from $- .12$ to $+ .27$, whereas in the post-test, the range of congruence is from $- .01$ to $+ .46$. The means of self-ideal correlations in the pre- and post-tests are $.07$ and $.22$ respectively.

In the CL group 21 subjects have shown slight improvement in the positive direction and the remaining 4 subjects have moved in the negative direction.

Table 2 reveals that 96 percent of the subjects have self-ideal congruence below $.20$, whereas only 48 percent of the subjects have remained at this low level of self-esteem in the post-test. The percentage of subjects obtaining higher than $.25$ self-ideal congruence has changed from 4 percent in the pre-test to 48 percent in the post-test. The results of the CL group thus indicate that there is some improvement in the level of self-esteem without counselling, although it is not much as compared to that obtained under the

influence of counselling.

Compared to the CL group, the EL group shows considerable improvement in self-esteem as evidenced by the change in the mean self-ideal congruence from .05 before counselling to .50 after counselling. There are non-random changes in the self-ideal correlations of the EL group over a period of counselling interviews. Such changes in the CL group are small. The greater amount of improvement in the EL group as compared to that in the CL group, is thus attributable to the influence of counselling interviews.

On comparing the results of the EH and EL groups, it can be seen from Table 1 that there is greater improvement in the EL group with respect to self-esteem level than that in the EH group. It is also observed that the initial level of self-esteem in the EL group is much lower than that in the EH group. The changes that are expected in the EH group would, therefore, be small as compared to those in the EL group. The following table is prepared to show the relative improvement in self-esteem in two groups :

Table 3 : Comparison of the High Experimental and the Low Experimental Groups in Terms of Average Performance on the Self-esteem Scale

	EH		EL	
	Pre-Counselling	Post-Counselling	Pre-Counselling	Post-Counselling
Self-Esteem	.62	.67	.05	.50

Table 3 shows mean scores of EH and EL groups on self-esteem measure before and after counselling interviews. The mean self-ideal correlations in the EL group both before and after counselling are .05 and .50 respectively. Similarly, the mean self-ideal correlations in the EH group before and after counselling are .62 and .67 respectively. This shows that ^{the} amount of change in self-esteem is greater in the low self-esteem group than in the high self-esteem group.

The assumption that low self-esteem subjects have greater need for counselling and that they respond well to counselling is confirmed even in terms of ^{the} number of subjects showing improvement in the initial level of self-esteem. In the EL group all the 25 subjects have shown improvement in the positive direction, whereas in the EH group 21 subjects have shown improvement in the positive direction. The amount of change in the subjects of EL group is also greater than that in the subjects of EH group.

Analysis of Scores on the Depressive Affect Scale

Changes in the depression of the pupils under the influence of counselling interviews are examined and discussed in this section.

Table 4 : Performance of the Subjects on the Depressive Affect Scale

	EH		CH		EL		CL	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
		D		D		D		D
1	43	40	50	45	53	45	51	48
2	51	49	49	51	50	42	67	65
3	45	34	50	52	69	57	62	62
4	46	47	52	46	52	46	55	50
5	52	42	48	52	69	40	49	42
6	52	49	51	50	51	48	57	59
7	51	47	44	45	50	45	55	49
8	49	43	42	44	72	52	72	66
9	47	43	48	44	68	52	60	57
10	44	41	44	48	59	51	65	62
11	51	47	51	50	59	49	67	64
12	52	54	43	41	62	46	61	54
13	50	46	50	49	75	71	73	68
14	37	35	48	50	63	52	63	67
15	52	47	48	44	65	49	52	58

(continued)

(Table 4 continued)

	EH			CH			EL			CL		
	Pre-test	Post-test	D	Pre-test	Post-test	D	Pre-test	Post-test	D	Pre-test	Post-test	D
16	43	40	- 3	46	44	- 2	69	57	-12	65	60	- 5
17	50	47	- 3	47	43	- 4	47	43	- 4	69	71	+ 2
18	52	54	+ 2	50	47	- 3	73	60	-13	59	59	0
19	57	46	-11	34	31	- 3	68	47	-21	65	61	- 4
20	50	44	- 6	35	32	- 3	71	70	- 1	55	55	0
21	41	41	0	33	31	- 2	69	63	- 6	57	48	- 9
22	48	33	-15	38	32	- 6	71	60	-11	50	44	- 6
23	51	38	-13	37	36	- 1	54	51	- 3	61	56	- 5
24	51	36	-15	39	35	- 4	63	58	- 5	70	68	- 2
25	40	37	- 4	43	37	- 6	63	43	-20	40	37	- 3
Mean	48.02	43.20		44.80	43.16		62.60	51.88		60.00	57.20	

EH - Experimental High Self-esteem group
 CH - Control High Self-esteem group
 EL - Experimental low self-esteem group
 CL - Control low Self-esteem group
 D - Difference

+ Increase in depression
 - Decrease in depression

Table 5 : Percentage Distribution of the Subjects
on the Depressive Affect Scale

Range of Scores	EH		CH		EL		CL	
	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test
75 - 79					4			
70 - 74					16	8	12	4
65 - 69					28		24	20
60 - 64					16	12	20	20
55 - 59	4				8	12	24	24
50 - 54	52	8	28	24	24	20	12	8
45 - 49	20	36	28	24	4	32	4	12
40 - 44	20	32	20	24		16	4	8
35 - 39	4	16	16	12				4
30 - 34		8	8	16				

Table 4 shows the scores obtained by each subject the belonging to four different groups on Depressive Affect scale. Table 5 is derived from Table 4 and it shows percentage of subjects falling within each score range.

As seen from Table 4, three columns are provided within each of the four groups. The first and the second columns show the scores obtained by each subject in the pre-test and in the post-test respectively. The third column indicates the direction and extent of change in depression. The minus sign indicates the decrease in

depression and the plus sign indicates increase in depression. The labels EH, CH, EL and CL indicate high self-esteem experimental group, high self-esteem control group, low self-esteem experimental group and low self-esteem control group respectively.

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The range of the scores on ^{the} Depressive Affect Scale in the EH group is from 35 to 57 before counselling and from 33 to 54 after counselling. This indicates that there is some improvement in the depression level of the EH group due to the influence of counselling treatment. In this group 84 percent of the subjects have shown improvement in the level of depression following counselling treatment. The amount of improvement in this group in terms of the score points has ranged from 0 to 15 points. One subject is not at all affected by the counselling interviews and three subjects have shown a slight increase in the level of their depression.

Referring to Table 5, it can be said that in the EH group four percent of the subjects fall within the score range of 55 to 59 before counselling interviews. No subject has obtained such a high score after following interviews. Moreover, 24 percent of the subjects have obtained scores below 45. The percentage of the subjects falling below the

score point of 45 has increased from 24 percent before counselling to 56 percent after counselling. This shows that the number of subjects showing improvement in the level of depression has increased considerably. Before attributing this improvement in the level of depression to the influence of counselling interviews, the performance of the CH group should be examined. To the extent that EH group shows improvement over CH group in the level of depression, the beneficial effect of counselling interviews is demonstrated to that extent.

The initial score range and the final score range in the CH group are from 33 to 52 and from 31 to 52 respectively. Thus in terms of score range the subjects of the control group have shown very slight change over an interval of time. In the same group 18 subjects have shown improvement in the level of depression, whereas seven subjects have shown slight increase in the depression.

From Table 5 one can say that not a single subject in the CH group has obtained a score of 55 or above in the pre-test or in the post-test. Forty-four percent of the subjects in the pre-test and 52 percent of the subjects in the post-test have obtained scores below 45. The amount of change is also very slight. The higher amount of improvement in the experimental group in comparison to the control group is

thus attributable to the influence of counselling interviews.

One should not expect that counselling interviews should always bring about changes in depression in the expected direction, although the results show that they do. Since the subjects of the EH group had initially high level of self-esteem and fairly low level of depression, considerable amount of change is not expected. The results bear out this contention.

In the EL group, as seen from Table 4, the depressive affect scores range from 47 to 75 before counselling interviews and from 40 to 71 after counselling interviews. It is also seen from this table that the level of depression has decreased in all the subjects under the influence of counselling interviews. Moreover, there are 13 subjects whose level of depression has changed by 10 or more score points in the expected direction.

Table 5 reveals that 72 percent of the subjects have obtained a score of 55 or above 55 before counselling interviews, whereas there are only 32 percent of the subjects who have obtained a score of 55 or more after counselling interviews. This indicates that the counselling interviews have resulted in the general lowering of the

initial level of depression among the subjects. The score as low as 44 on depression is not obtained even by a single subject before counselling interviews, whereas there are 16 percent of the individuals who have obtained a score below 45 after counselling interviews. Thus in the EL group all the subjects have shown improvement in the expected direction. The percentage of subjects obtaining higher score on depression has gone down from 72 ~~percent~~ before counselling to 32 ~~percent~~ after counselling. This shows that the number of subjects obtaining lower score due to counselling treatment has increased substantially. At this stage the results of the CL group should be examined before any conclusion regarding the beneficial effect of counselling is drawn.

As seen from Table 4, the initial range of score is from 40 to 73 and the final range is from 37 to 71 in the CL group. Eighteen subjects in the CL group have shown improvement in the level of their depression after an interval of time, whereas four subjects have shown slight increase in the level of depression and three subjects have not shown any change. The amount of increase or decrease is not very high as compared to that in the EL group.

Looking to Table 5 one can say that 80 percent of the subjects in CL group have obtained a score of 55 and above in the pre-test, whereas 68 percent of the subjects have achieved this level of depression in the post-test. Four percent of the subjects have obtained a score below 45 in the pre-test, whereas 12 percent of the subjects have obtained a score below 45 in the post-test.

Thus the expected changes in the level of depression are quite considerable both in magnitude and frequency of the subjects showing such changes in the EL group as compared to those in the CL group. These changes can therefore be attributed to the influence of counselling interviews. At this stage it would be worthwhile to compare the level of improvement in depression in the EH group with that in the EL group.

In terms of frequency 21 subjects in the EH group and all the 25 subjects in the EL group have shown improvement in the level of depression as a result of counselling interviews. In terms of magnitude of change 15 subjects in the EH group have shown improvement upto the score point of six and below six, whereas six subjects have shown improvement above six score points upto the maximum of 15 points. In the EL group nine subjects have improved the level of their

depression upto the score point of six and the remaining 16 subjects have improved beyond this point upto the maximum of 29 score points. Thirteen subjects in the EL group have improved by 10 or more than 10 score points, whereas there are 6 subjects who have shown improvement by 10 or more than 10 score points. Thus the level of improvement in depression both in terms of magnitude and frequency is quite high in the EL group in comparison to the EH group. On the whole it can be said that counselling interviews have beneficial effect on the behaviour of individual subjects with initially high or low level of depression, although the amount of improvement in the subjects with initially high level of depression is greater than those with initially low level of depression.

Upto now the changes in the level of depression were examined. Now, the changes in the level of neuroticism will be considered.

Analysis of Scores on the Neurotic Scale

The performance of the subjects on Neurotic Scale are presented in Table 6 .

Table 6 : Performance of the Subjects on the Neurotic Scale

	EH			CH			EL			CL		
	Pre-test	Post-test	D	Pre-test	Post-test	D	Pre-test	Post-test	D	Pre-test	Post-test	D
1	49	46	- 3	51	48	- 3	59	40	-19	51	50	- 1
2	45	43	- 2	50	48	- 2	63	50	-13	68	65	- 3
3	48	34	-14	56	56	0	73	62	-11	69	65	- 4
4	45	43	- 2	57	59	+ 2	70	52	-18	60	57	- 3
5	50	40	-10	52	51	- 1	65	45	-20	57	62	+ 5
6	50	37	-13	49	51	+ 2	59	40	-19	59	58	- 1
7	50	46	- 4	46	44	- 2	60	51	- 9	60	58	- 2
8	51	42	- 9	47	42	- 5	75	60	-15	76	67	- 9
9	46	44	- 2	46	41	- 5	54	32	-22	56	51	- 5
10	58	43	-15	50	46	- 4	54	45	- 9	50	47	- 3
11	52	38	-14	50	47	- 3	69	55	-14	57	55	- 2
12	38	34	- 4	56	52	- 4	59	48	-11	69	65	- 4
13	52	39	-13	46	44	- 2	71	68	- 3	62	58	- 4
14	39	33	- 6	47	49	+ 2	70	57	-13	68	69	+ 1
15	56	57	+ 1	39	35	- 4	54	43	-11	65	62	-13

(continued)

(Table 6 continued)

	EH			CH			EL			CL		
	Pre- test	Post- test	D	Pre- test	Post- test	D	Pre- test	Post- test	D	Pre- test	Post- test	D
16	50	41	- 9	48	45	- 3	68	57	-11	76	70	- 6
17	53	50	- 3	45	42	- 3	58	46	-12	56	51	- 5
18	53	51	- 2	52	56	+ 4	71	60	-11	62	58	- 4
19	47	44	- 3	49	44	- 5	60	46	-14	70	61	- 9
20	51	44	- 7	45	38	- 7	65	58	- 7	69	65	- 4
21	36	34	- 2	30	30	0	60	46	-14	49	48	- 1
22	50	48	- 2	39	35	- 4	69	60	- 9	61	57	- 4
23	58	41	-17	37	34	- 3	57	36	-21	70	60	-10
24	39	35	- 4	35	34	- 1	63	58	- 5	58	60	+ 2
25	34	33	- 1	53	46	- 7	62	44	-18	65	60	- 5
Mean	48.00	41.60	66.40	47.00	44.76		63.52	50.36		62.52	59.40	

EH - Experimental High Self-esteem group
 CH - Control High Self-esteem group
 EL - Experimental Low Self-esteem group
 CL - Control Low Self-esteem group

D - Difference
 + - Increase in Neuroticism
 - - Decrease in Neuroticism

Table 7 : Percentage Distribution of the Subjects
on the Neurotic Scale

Range of Scores	EH		CH		EL		CL	
	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test
75 - 79					4		8	
70 - 74					20		8	4
65 - 69					20	4	28	24
60 - 64					24	16	20	24
55 - 59	12	4	12	12	20	20	24	28
50 - 54	44	8	28	12	12	12	8	12
45 - 49	24	12	40	28		24	4	8
40 - 44		40		24		16		
35 - 39	16	16	16	12		4		
30 - 34	4	20	4	12		4		

As seen from Table 6, the initial score range of from 34 to 58 in EH group has changed from 35 to 57 after counselling interviews. Ninety-six percent of the subjects in the same group have shown improvement in their performance on the Neurotic Scale after counselling. There is only one subject who has moved one score point in the direction of greater neuroticism.

Table 7 reveals that 20 percent of the subjects in the EH group have obtained scores below 45 before counselling, whereas 36 percent of the subjects have obtained the

scores below 45 after counselling treatment. The percentage of the subjects obtaining 55 or higher than 55 score points has decreased from 12 percent to four percent due to the influence of counselling.

In the CH group, the range is from 30 to 57 in the pre-test and from 30 to 59 in the post-test. Seventy-six percent of the subjects have shown improvement in the level of their neuroticism. Two subjects have remained unchanged and four subjects have moved towards the direction of greater neuroticism. In terms of magnitude of change in the positive direction, that is, in the direction of improvement, most of the subjects have shown slight improvement in the level of neuroticism they have possessed at the pre-test point.

One can say from Table 7 that the number of subjects obtaining 55 and higher than 55 score points has remained unchanged at the post-test point. Moreover, the percentage of subjects obtaining lower than 45 score points has changed from 20 percent to 48 percent over an interval of time. These observations reveal that there is some improvement in the level of neuroticism in the CH group without any counselling treatment. However, the amount of change in the EH group is greater than that in the CH group.

Considering the results of EL group, one can say from Table 6 that the range of scores on Neurotic Scale is from 54 to 75 before counselling and from 32 to 68 after counselling. It is also observed from the same table that all the subjects have shown improved performance on this scale. ^{There are} Eighty-eight percent of the subjects whose level of neuroticism ^{has} have changed by nine or more than nine score points in the expected direction. This indicates that most of the subjects have shown a marked decrease in neurotic symptoms.

It is observed from Table 7 that 88 percent of the subjects have scored above 54 before counselling, whereas only 40 percent of the subjects have scored above 54 after counselling sessions. There is not a single subject who has scored below 45 before counselling, while there are 24 percent of the subjects who have scored below 45 after counselling interviews.

In the CL group, out of 25 subjects 22 subjects have shown improvement and three subjects have moved in opposite direction. The initial score range in this group is from 49 to 76 in the pre-test and from 47 to 70 in the post-test. There are only two subjects who have improved by 9 score-points. One subject has improved by 10 score points. Remaining subjects have shown a slight improvement.

Table 7 shows that there is not a single subject who could get a score below 45 both in the pre- and post-tests. Eighty-eight percent of the subjects in the pre-test and 80 percent of the subjects in the post-test have obtained score points higher than 54. It is thus seen that there are slight changes in the level of neuroticism in the CL group, whereas there is a considerable improvement in the level of neuroticism in the EL group. This change is thus attributable to the influence of counselling treatment. The results have clearly indicated that both high self-esteem as well as low self-esteem subjects are influenced by counselling in such a manner that there is a decrease in the neurotic symptoms.

If the results of the EL group are compared to the results of the EH group, one can say from Table 6 that 24 subjects in the EH group and all the 25 subjects in the EL group have shown improvement in neurotic symptoms over a period of counselling interviews. In terms of magnitude there are only seven subjects in the EH group who have shown improvement in the level of neuroticism beyond 10 score points, whereas there are 19 subjects in the EL group who have shown improvement beyond 10 score points in the expected direction. Thus the level of improvement in the EL group in comparison to the EH group is quite high in terms of magnitude.

Analysis of Scores on the Anxiety Scale

The scores obtained by each subject on Anxiety Scale are presented and discussed here.

Table 8 : Performance of the Subjects on the Anxiety Scale

	EH			CH			EL			CL		
	Pre-test	Post-test	D	Pre-test	Post-test	D	Pre-test	Post-test	D	Pre-test	Post-test	D
1	8	6	- 2	7	6	- 1	18	12	- 6	22	20	- 2
2	10	7	- 3	15	13	- 2	21	7	-14	23	21	- 2
3	15	7	- 8	15	16	+ 1	23	16	- 7	17	14	- 3
4	16	15	- 1	14	13	- 1	14	6	- 8	15	12	- 3
5	11	4	- 7	12	11	- 1	14	3	-11	16	14	- 2
6	16	6	-10	11	12	+ 1	16	8	- 8	16	16	0
7	10	12	+ 2	8	7	- 1	15	12	- 3	22	20	- 2
8	10	6	- 4	9	6	- 3	17	9	- 7	20	17	- 3
9	9	7	- 2	9	7	- 2	24	16	- 8	15	11	- 4
10	12	13	+ 1	9	10	+ 1	16	10	- 6	21	19	- 2
11	10	8	- 2	12	12	0	15	11	- 4	14	12	- 2
12	12	10	- 2	12	12	0	20	12	- 8	18	21	+ 3
13	11	9	- 2	16	15	- 1	20	11	- 9	18	17	- 1
14	5	2	- 3	10	8	- 2	18	16	- 2	15	16	+ 1
15	18	13	- 5	10	7	- 3	16	12	- 4	18	16	- 2

(continued)

(Table 8 continued)

	EH			CH			EL			CL		
	Pre- test	Post- test	D	Pre- test	Post- test	D	Pre- test	Post- test	D	Pre- test	Post- test	D
16	8	3	- 5	17	20	+ 3	14	12	- 2	22	20	- 2
17	8	10	- 2	9	8	- 1	18	11	- 7	19	16	- 3
18	14	12	- 2	18	17	- 1	19	10	- 9	16	15	- 1
19	17	14	- 3	6	2	- 4	9	7	- 2	20	14	- 6
20	10	7	- 3	7	5	- 2	17	10	- 7	20	18	- 2
21	6	4	- 2	1	2	+ 1	17	10	- 7	13	16	+ 3
22	8	2	- 6	6	4	- 2	16	9	- 7	18	14	- 4
23	10	3	- 7	3	1	- 2	16	10	- 6	16	11	- 5
24	5	1	- 4	8	4	- 4	17	11	- 6	19	16	- 3
25	4	3	- 1	7	2	- 5	20	10	-10	12	9	- 3
Mean	10.72	7.36		10.04	8.8		17.20	10.44		17.80	15.44	

EH	-	Experimental High Self-esteem Group	D	-	Difference
CH	-	Control High Self-esteem Group	+	-	Increase in Anxiety
EL	-	Experimental Low Self-esteem Group	-	-	Decrease in Anxiety
CL	-	Control Low Self-esteem Group			

Table 9 : Percentage Distribution of the Subjects on
the Anxiety Scale

Range of Score	EH		CH		EL		CL	
	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test	Pre- test	Post- test
22 - 24					8		16	
19 - 21				4	20		24	24
16 - 18	16		12	8	48	12	36	36
13 - 15	8	16	12	12	20		20	20
10 - 12	40	16	24	20		60	4	16
7 - 9	20	24	36	20	4	20		4
4 - 6	16	20	8	20		4		
1 - 3		24	8	16		4		

Table 8 shows that in the EH group the range of scores on the Anxiety Scale is from 4 to 18 before counselling and from 1 to 15 after counselling. Moreover 23 out of 25 subjects have shown decrease in the level of anxiety due to the influence of counselling. One subject has moved one score point and another subject has moved two score points in the direction of greater anxiety. In terms of the amount of change,

seven subjects have shown improvement beyond four score points.

Referring to Table 9, it can be said that 36 percent of the subjects in the EH group have obtained scores below 10 before counselling whereas 68 percent of the subjects have obtained the same level after counselling interviews. This again shows that the effect of counselling is in the direction of reducing the level of anxiety. Another evidence for the beneficial effect of counselling comes from the fact that the percentage of subjects obtaining scores above 15 has decreased from 16 ~~percent~~ before counselling to zero ~~percent~~ after counselling.

In the CH group, the range of scores from 1 to 18 in the pre-test has remained more or less unaffected over an interval of period. In the same group 18 subjects have changed in the expected direction, five subjects have shown some increase in the level of their anxiety and two subjects have not shown any change. In terms of ^{the} magnitude of change, most of the subjects have shown slight improvement in the level of their anxiety.

From Table 9 it can be said that the number of subjects obtaining higher than 15 score point is remained unchanged after an interval of time. The percentage of subjects obtaining

lower than 10 score points has slightly increased from 52 in the pre-test to 56 in the post-test.

The anxiety level of all the subjects in the EL group, as seen from Table 8, has ^{counselled} increased due to the influence of the counselling treatment. The scores in the initial test of anxiety range from 9 to 24 and after counselling the scores range from 3 to 16. The amount of improvement in this group in terms of score points has ranged from 2 to 14 points.

Table 9 shows that 76 percent of the subjects have obtained more than 15 score points before counselling, whereas only 12 percent of the subjects have obtained more than 15 score points after counselling interviews. Moreover, the percentage of the subjects obtaining below 10 score points have increased from 4 before counselling to 28 after counselling. If the level below 13 score points is considered, the percentage of subjects increases from 4 before counselling to 88 after counselling. It is thus observed that the anxiety level is reduced to a considerable extent in most of the subjects under the influence of counselling.

As can be seen from Table 8 the scores on the Anxiety Scale in the CL group range from 12 to 23 in the pre-test and from 9 to 21 in the post-test. Out of 25 subjects

21 have shown decrease in anxiety, three have shown a slight increase and one has not shown any change. The percentage of subjects obtaining above 15 score points has decreased from 76 to 60. At low level of score points the percentage of the subjects obtaining score points below 10 has increased from zero to four only. It is thus seen that there is no appreciable change in the level of anxiety in the CL group in comparison to the EL group.

Compared to the EH group, the EL group has shown greater improvement in the level of anxiety. It can be observed from Table 8 that 23 subjects in the EH group and all the 25 subjects in the EL group have shown change in the expected direction. In terms of magnitude it can be said that there are only five subjects in the EH group who have shown improvement in the level of anxiety beyond five score points, whereas there are 19 subjects in the EL group who have shown improvement beyond five score points.

In order to see the amount of change in both EH and EL groups in respect of depression, neuroticism and anxiety, the following table is presented.

Table 10 : Comparison of the High Experimental and the Low Experimental Groups in Terms of Average Performance on the Depressive Affect, the Neurotic and the Anxiety Scales

Scales	EH		EL	
	Pre-Counse- lling	Post-Coun- selling	Pre-Coun- selling	Post-Coun- selling
Depressive	48.02	43.20	62.60	51.88
Neuroticism	48.00	41.60	63.52	50.36
Anxiety	10.72	7.36	17.20	10.44

Table 10 shows mean scores of each group on each of the three measures before and after counselling interviews. It is observed from this table and from Tables 4, 6 and 8 that the initial level of depression, neuroticism and anxiety in the EL group is higher than those in the EH group. It should be noted here that the EH and EL groups were formed on the basis of the performance of the subjects on the Self-esteem Scale. It could, therefore, be inferred that the high self-esteem subjects are relatively free from depression, anxiety and neuroticism. Contrary to this, the initial levels of three measures in the EL group are quite high, indicating that the low self-esteem subjects have greater amount of anxiety, depression and neuroticism. The changes that are expected in the EH group

would, therefore, be small as compared to those in the EL group. This expectation is confirmed by the results in Table 10. The mean depression scores in the EH group both before and after counselling are 48.02 and 43.20 respectively. Similarly, the mean depression scores in the EL group before and after counselling are 62.60 and 51.88. This shows that the amount of reduction in depression is greater in the low self-esteem group than in the high self-esteem group. The mean neuroticism scores in the EH group before and after counselling are 48.00 and 41.60 respectively, indicating that there is a slight change in the expected direction. The corresponding mean scores in the EL group are 63.52 and 50.36. This shows that there is a greater amount of change in the expected direction. Similar trend is observed in the level of anxiety. The mean scores before and after counselling in the EH group are 10.72 and 7.36 respectively and the corresponding mean scores in the EL group are 17.20 and 10.44. The assumption that low self-esteem subjects have greater needs for counselling and that they respond to counselling better is confirmed even in terms of the number of subjects showing change in the initial level of self-esteem, depression, neuroticism and anxiety in the expected direction.

In order to study the significance of the difference between means of experimental and control groups, the covariance technique was employed. Covariance analysis takes into account the initial differences between groups, thus permitting the investigator to study the effects of counselling interviews in small sample. The possible transfer effects or practice effects from initial measures to final measures obtained after administering the counselling treatment are also taken into account by this technique while computing adjusted 'Y' scores for initial differences in 'X' scores. Since the scores on depression, neuroticism and anxiety decrease with increase in self-esteem scores, they are given the same statistical treatment as in the case of self-esteem scores. All the four measures, namely, self-esteem, depression, neuroticism and anxiety are separately studied. First the results of the covariance analysis of self-esteem scores will be examined. The high self-esteem and the low self-esteem groups will be studied separately.

Analysis of Covariance of Self-esteem Scores

First the results of analysis of covariance for the high group will be presented and discussed. This will be followed by the presentation and discussion for the low group.

Table 11 : Analysis of Variance of Self-esteem Scores
for the High Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	.0274	.1415	.0274	.1415	Fx = 1.24
Within Groups	48	1.0793	1.8553	.022	.038	Fy = 3.72
Total	49	1.1067	1.9968			

Fx insignificant

From Table F

Fy insignificant

Df 1/48

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 12 : Analysis of Covariance of Self-esteem Scores
for the High Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	Fy.x
Among Means	1	.0274	.1415	.0623	.1077	.1077	2.8
Within Groups	47	1.0793	1.8553	.3048	1.7802	.0379	
Total	48	1.1067	1.9968	.3671	1.8879		

Fy.x insignificant

From Table F

Df 1/47

F at 0.05 level = 4.04

F at 0.01 level = 7.20

It is observed from Table 11 that the F ratio of 1.24 for initial differences in X is not significant. It means that the experimental and the control groups do not differ with respect to their self-esteem before counselling interviews. The F ratio for y is also insignificant, indicating that the two groups do not differ even after the experimental group is subjected to counselling interviews. The F ratio for Y adjusted for initial differences in X is also insignificant. Table 1 reveals that the means of the EH group before and after counselling interviews are .62 and .67 respectively. Similarly the means of the CH group are .59 and .60 in the ^{pre-}test and in the post-test respectively. Thus it is quite clear that the high self-esteem group does not differ significantly from the control group in respect of self-esteem scores and that the counselling interviews fail to bring about any appreciable change in the subjects with initially high level of self-esteem. The hypothesis that counselling would produce changes in self-esteem is thus not supported in the high self-esteem group.

Table 13 : Analysis of Variance of Self-esteem
Scores for the Low Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among means	1	.0063	1.3515	.0063	1.3515	Fx = .5
Within Groups	48	.6093	1.0466	.0127	.0218	Fy = 62.0
Total	49	.6156	2.3981			

Fx insignificant

From table F

Fy highly significant

Df 1/48

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 14 : Analysis of Covariance of Self-esteem
Scores for the Low Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	Fy.x
Among Means	1	.0063	1.3515	-.0921	1.3633	1.3633	61.96
Within Groups	47	.6093	1.0466	+.0851	1.0347	.022	
Total	48	.6156	2.3981	-.0070	2.3980		

Fy.x highly significant

From Table F

Df 1/47

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Tables 13 and 14 show the results of the analysis of variance and covariance for the low self-esteem group respectively. The F ratio for X, that is, initial scores on self-esteem is insignificant. This indicates that the low experimental group and the low control group do not differ from each other initially with respect to their self-esteem scores. The F ratio of 62.0 in the case of Y scores is highly significant. The results also indicate that the F ratio for adjusted Y scores is significant beyond .01 level of confidence. Counselling interviews thus prove to be of great value in increasing the level of self-esteem among subjects with initially very low level of self-esteem. The effect of counselling is such as to make the individual perceive greater congruence between his perceived self and ideal self. As can be seen from Table 1, the mean self-esteem score of .05 in the EL group before counselling increases upto .55 after counselling, whereas in the CL group the initial mean of .07 increases upto .22 in the post-test. The hypothesis that counselling would bring about changes in the level of self-esteem is thus confirmed in the EL group and not in the EH group.

Analysis of Covariance of Depressive Affect Scores

The results of the analysis of variance of Depressive Affect Scores for the high group are presented in Table 15 and the results of covariance of the same scores for the same group are shown in Table 16.

Table 15 : Analysis of Variance of Depressive Affect Scores for the High Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	145	0	145	0	$F_x = 5.1$
Within Groups	48	1342	1938	27.9	42.0	$F_y = 0$
Total	49	1487	1938			

F_x Significant at 0.05 level				From Table F		
F_y Insignificant				Df 1/48		
				F at 0.05 level =	4.04	
				F at 0.01 level =	7.20	

Table 16 : Analysis of Covariance of Depressive Affect Scores for the High Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSya	Fy.x
Among Means	1	145	0	2	110	110	6.7
Within Groups	47	1342	1938	1250	774	16.4	
Total	48	1487	1938	1252	884		

$F_{y.x}$ Sig. at 0.05 level				From Table F			
				Df 1/47			
				F at 0.05 level =	4.04		
				F at 0.01 level =	7.20		

From Table 15 it can be said that the F ratio of 5.1 for initial scores in depression is significant at .05 level of confidence and the F ratio for Y scores is zero. Table 16 reveals that the F ratio for Y adjusted for initial differences in X turn out to be significant at .05 level of confidence. This indicates that although the experimental and control groups do not differ in the Y mean scores without adjustment for differences in X, they do differ significantly after the adjustments are made. Table 4 reveals that the initial means of depressive affect scores in the EH and CH groups are 48.02 and 44.80 respectively, while the final means in the same groups are 43.20 and 43.16 respectively. This shows that the Y means differ very slightly from each other but they do differ significantly after Y mean scores are adjusted for initial differences in X scores.

Table 17 : Analysis of Variance of Depressive Affect Scores for the Low Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	85	353	85	353	Fx = 1.2
Within Groups	48	3262	3555	68	74.06	Fy = 4.7
Total	49	3347	3908			

Fx insignificant
Fy Sig. at 0.05 level

From Table F
DF 1/48
F at 0.05 level = 4.04
F at 0.01 level = 7.20

Table 18 : Analysis of Covariance of Depressive Affect Scores for the Low Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	Fy.x
Among Means	1	85	353	-173	676	676	23.4
Within Groups	47	3262	3555	2678	1357	28.8	
Total	48	3347	3908	2565	2033		

Fy.x Highly significant

From Table F

Df 1/47

F at 0.05 level=4.04

F at 0.01 level=7.20

Tables 17 and 18 show the results of variance and covariance of depressive affect scores in the low group. The F ratio of 1.2 for initial scores of depression, as seen from Table 17 is not significant. This indicates that the two groups are almost at the same level of depression. The F ratio of 4.7 for Y scores is significant at .05 level of confidence, indicating that the experimental and ^{the} control groups differ significantly due to the influence of counselling interviews. Also, the F ratio for Y scores adjusted for initial differences in X is highly significant beyond .01 level of confidence. Looking to the final mean scores of these two groups in Table 4, it can be said that the mean score of the experimental group is 51.88, which is considerably lower than that of the control group, due to the effect of counselling.

The results thus indicate that the counselling interviews produce desirable changes in the level of depression of the low self-esteem group.

Analysis of Covariance of Neurotic Scores

The scores on the Neurotic Scale is also analysed by the analysis of variance and the analysis of covariance procedures. The results of the neurotic scores for the high group will be presented and discussed. This will be followed by the discussion and the interpretation of the results for the low group.

Table 19 : Analysis of Variance of Neurotic Scores
for the High Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	13	118	13	118	Fx = .3
Within Groups	48	2082	2238	43.3	46.6	Fy = 2.6
Total	49	2095	2356			

Fx insignificant

Fy insignificant

From Table F

Df 1/48

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 20 : Analysis of Covariance of Neurotic
Scores for the High Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	Fy.x
Among Means	1	13	118	-38	190	190	11.2
Within Groups	47	2082	2238	1741	782	16.6	
Total	48	2095	2352	1703	972		

Fy.x Sig. at 0.01 level

From Table F

Df 1/47

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 19 shows that the F ratios for X and Y are both insignificant. The insignificant F for X indicates that the two groups initially do not differ from each other and the insignificant F for Y indicates that the two groups do not differ even after the administration of counselling interviews to the experimental group. However, the F ratio for Y scores adjusted for initial differences in X turns out to be significant beyond .01 level of confidence. Thus the experimental group does differ from the control group in respect of neurotic scores. Looking at Table 6, it can be said that the final mean score of 41.60 in the experimental group is

lower than the final mean score of 44.80 in the control group. This shows that counselling tends to reduce the neurotic symptoms.

Table 21 : Analysis of Variance of Neurotic Scores for the Low Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	12	1021	12	1021	F _x = .25
Within Groups	48	2289	2892	48.7	61.5	F _y = 16.6
Total	49	2301	3913			

F_x insignificant
F_y Sig. at 0.01 level

From Table F
Df 1/48

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 22 : Analysis of Covariance of Neurotic Scores for the Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	Fy.x
Among Means	1	12	1021	-113	1215	1215	46.3
Within Groups	47	2289	2892	1949	1233	26.2	
Total	48	2301	3913	1836	2448		

Fy.x highly significant

From Table F
Df 1/47

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 21 shows the results of the analysis of variance of neurotic scores in the low self-esteem group and Table 22 shows the results of the analysis of covariance. As expected, the F ratio of .25 for the initial neurotic scores is insignificant and the F ratio for Y scores is significant beyond .01 level of confidence. The F for Y scores adjusted for initial differences in X turns out to be highly significant beyond .01 level of confidence. Table 6 shows that Y mean score for the experimental group is 50.36 which is much lower than the mean scores of 59.40 for the control group. Thus the counselling interviews tend to decrease considerably the neurotic symptoms in the low self-esteem subjects.

Analysis of Covariance of Anxiety Scores

Anxiety scores are also analyzed by the analysis of variance procedure which is followed by the analysis of covariance procedure.

Table 23 : Analysis of Variance of Anxiety Scores
for the High Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	6	26	6	26	F _x = .35
Within Groups	48	816	1052	17.0	21.9	F _y = 1.2
Total	49	822	1078			
<hr/>						
F _x insignificant				From Table F		
F _y insignificant				Df 1/48		
				F at 0.05 level = 4.04		
				F at 0.01 level = 7.20		

Table 24 : Analysis of Covariance of Anxiety Scores
for the High Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	Fy.x
Among Means	1	6	26	-12	55	55	9.6
Within Groups	47	816	1052	800	268	5.7	
Total	48	822	1078	788	323		

Fy.x Sig. at .01 level

From Table F

Df 1/47

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 23 shows the results of the analysis of variance of the initial scores and final scores on anxiety in high self-esteem group. Table 24 shows the results of the analysis of covariance of the same scores. The experimental group, as seen from Table 23 does not differ significantly from the control group in the initial scores on anxiety. The F ratio for Y scores is also insignificant. However, the F ratio for Y scores adjusted for initial differences in X is significant at .01 level of confidence. Looking to the mean scores of both the groups from Table 8, it can be said that the mean scores of the experimental group is considerably lower than that of the control group after counselling interviews. Thus subjects with high level of self-esteem do respond to counselling

interviews as a result of which the anxiety scores are decreased.

Table 25 : Analysis of Variance of Anxiety Scores
for the Low Group

Source of Variance	df	SSx	SSy	MSx	MSy	F Ratios
Among Means	1	5	312	5	312	$F_x = 0.5$
Within Groups	48	481	479	10.0	10.0	$F_y = 31.2$
Total	49	486	791			

F_x insignificant

From Table F

F_y highly significant

Df 1/48

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Table 26 : Analysis of Covariance of Anxiety
Scores for the Low Group

Source of Variance	df	SSx	SSy	SSxy	SSyx	MSyx	$F_{y.x}$
Among Means	1	5	312	266	269	269	38.1
Within Groups	47	481	479	38	332	7.06	
Total	48	486	791	304	601		

$F_{y.x}$ highly significant

From Table F

Df 1/47

F at 0.05 level = 4.04

F at 0.01 level = 7.20

Tables 25 and 26 show the results of variance and covariance of anxiety scores in the low self-esteem group. As seen from Table 25, the F ratio for X scores is insignificant, indicating that the two groups do not differ with respect to their performance on the Anxiety Scale before the administration of counselling interviews. The F ratio of 31.2 for Y scores is highly significant. This shows that the experimental group differs markedly from the control group in respect of anxiety. The covariance results indicate that the two groups differ considerably in the level of anxiety. Considering the mean scores of two groups, it is observed from Table 8 that the mean anxiety score of the experimental group after counselling interviews is lower than that of the control group. This shows that low self-esteem subjects are influenced by the counselling interviews in such a manner that their initial level of anxiety is considerably reduced in comparison to the control subjects.

On the whole it is seen that high and low self-esteem subjects under the influence of counselling interviews do show behaviour changes in the expected direction. The low self-esteem subjects are more highly affected than the high self-esteem subjects.

Appraisal of Changes during Counselling Interviews

In the preceding section, changes in the levels of self-esteem depression, neuroticism and anxiety were observed in quantitative terms. In the case of self-esteem, it was noted that the degree of self-ideal congruence increased considerably in low self-esteem subjects. Some increase in self-ideal congruence was also observed in high self-esteem subjects. Control subjects did not show any appreciable change after an interval of three months. In this section, the changes in behaviour that are observed from the responses of the subjects during the process of counselling interviews are presented and compared with similar changes brought about by other investigators.

It should be recalled here that the adolescent subjects with initially high or low self-esteem were divided in small groups of seven or eight in each group. It should also be noted here that each group consisted of both high and low self-esteem subjects and that the only consideration for that grouping was the class or division in which they were studying. Before the initiation of counselling interview it is necessary to know whether the subjects are willing to join such groups and to discuss their problems freely in the presence of others. In the intake interview the investigator tried to know the desire and willingness of the subjects by

personally contacting them and explaining to them what to expect and what is expected of them. It was noticed that most of the low self-esteem subjects were very eager to discuss their problems in a group setting. The high self-esteem subjects were not so explicit probably because they do not have many problems but they did not mind volunteering themselves in group discussion. Although it is true that high self-esteem subjects being able to discuss freely and with greater confidence the common problems, they were put along with low self-esteem subjects with the idea that low self-esteem subjects would have opportunities to know how situations are handled by such subjects. The fact that low self-esteem subjects have shown considerable improvement in their self-esteem after counselling interviews indicates to some extent that the experience of low self-esteem subjects to be with high self-esteem subjects has really helped them. The investigator took all the precautions to see that the views expressed by every subject on a problem are respected and valued. In the beginning of the first few sessions it was noticed that some of the subjects especially those with low self-esteem did not take much initiative in presenting their problems and in taking an active part in the discussion. Gradually they realized that other persons also have problems which are similar to those faced by them. As a result of this awareness those who were

reluctant to present their problems and those who did not admit to themselves that some of the problems were also shared by them, started taking more and more initiative. They also realized that ^{the} discussion of their problems in a group like the one in which they were discussing is not similar to a situation in which they casually talk about their problems to persons intimately known to them. Gradually they learnt to listen to the views expressed by their fellow subjects in the group. The communication among them increased gradually. They also became more trusting and accepting. Many subjects had doubts about themselves, the clearance of which requires warm and accepting atmosphere. It was made out from the expressions of the adolescent subjects that they did learn to talk more about the various aspects of their behaviour and that they did gain much for their own self-understanding. Not only did the subjects obtain more and more information about the various types of problems faced by different people and the way they dealt with, but they also developed skills to use this information in order to cope with their own problems realistically. This was evident in the manner in which they brought the number of issues to bear upon the current situation. It was noticed by the investigator that the subjects were putting forth new

possibilities for the solution of problems with increasing degree of self-confidence. The initial hostility or aggressiveness which was most obvious in some subjects gradually disappeared. Some of the subjects in the beginning did believe that aggression or strong agitation is the most effective way to get their work done by others. They also went to the extent of saying that such agitational behaviour should be displayed even before parents, teachers and neighbours. During counselling sessions this type of approach in dealing with elderly persons was replaced by more constructive approach. They did realize that an attempt to solve the problem through agitational means gives rise to new problems. They also learnt that there was not just one solution to the problem and the one which they can think of is not necessarily the best one. They asserted that they should represent their point of views before any authority without feeling perturbed. Some subjects were found to be very sensitive to criticism and were upset but gradually they began to understand their own weaknesses and to accept true criticism without feeling hurt. The initial incapability expressed by the subjects to deal with certain problems disappeared gradually and the tendency to strive in the midst of difficulties became more and more

pronounced. In the beginning of the counselling sessions, most of the subjects used to become upset emotionally while discussing their problems and difficulties, but gradually they learnt to accept the problems and to think about them more realistically. At the conclusion of the counselling sessions, some of the subjects stated that the group experience proved to be of great practical value to them as it would enable them to become more reality oriented while dealing with their problems. Others stated that the experience was unique because prior to this experience they never had any opportunity to understand the problem in all its aspects and to deal with it in better ways. Still others said that the group experience had enabled them to rid themselves of reservations or inhibitions and to face the situation without feeling disturbed. They also stated that the problem had many aspects and the over-simplified notion about the solution of the problem should not be carried in one's mind. The subjects realized and expressed the fact that problems arise due to misunderstanding and lack of communication with others.

This presentation of observations and inferences made from the reports of the subjects serves to indicate that group counselling is a situation in which subjects are able to think about their problems more realistically, learn to

respect the views expressed by others, gain increasing understanding of the self, become more confident and skilful in dealing with their problems, learn to utilize information in a better manner and become increasingly reality oriented. It is this experience which is responsible for greater congruence between self and ideal self.

Instead of studying the changes in the subjects' behaviour in the manner in which they have been discussed here, some investigators have tried to classify the responses of clients in certain well-defined categories. Raimy (1948) and Seeman (1949), for example, classified the verbal contents of the clients into such categories as positive self-reference, negative self-reference, ambivalent self-reference, ambiguous self-reference and references to external objects and persons. Seeman found that there is a movement from symptoms to self during the course of therapy. Clients in the beginning were more concerned with the description of the symptoms but gradually/^{they} showed increasing concern for their self. It was also observed by him that the statements of problems decreased, whereas the statements of insight and self-understanding increased with the development of counselling.

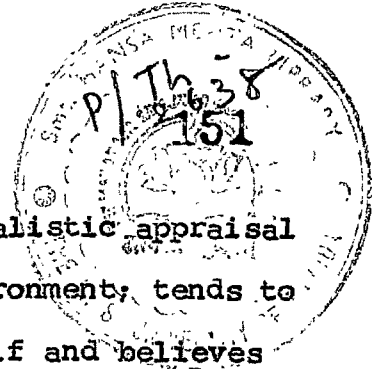
In the present investigation, too, the subjects were more interested in describing their problems and gradually their statements became more self-oriented. The occurrence of insight

also became more pronounced. There was a remarkable change in the attitudes of the subjects. In the beginning the subjects showed negative attitudes towards parents, neighbours and teachers. At times the subjects hated themselves. At the conclusion of counselling interviews, the overt or expressed hostility towards others was replaced by friendly attitudes. They began to consider other people as good and themselves as persons of worth and of value. They also began to perceive their feelings and motives. Thus, the tendency for the acceptance of self became more prominent.

Sheerer (1949) observed that as the self-concept changes in positive direction towards increasing self-acceptance parallel changes take place in the attitude toward others. Thus the subject not only feels better about himself but he also modifies his attitudes toward others in ways that will make it easier for him to enter into satisfying social relationships.

and

Lipkin (1948), Rogers Natalie (1947) found that the client in 'successful' therapy tends to perceive his abilities and characteristics more objectively. He tends to perceive himself as more independent and better able to solve his life problems. He also found that the individual changes in three general ways : he begins to perceive himself as a more



adequate, worthy person; achieves more realistic appraisal of himself, his relationship and his environment; tends to place the basis of standards within himself and believes that goodness or badness is not inherent. In the present investigation the subjects did regard themselves as worthy persons and showed an increasing tendency to accept and understand the self. By inference it could be said that they became more objective in evaluating others. Of all the changes there was a remarkable change in the attitudes towards self and others.

Raimy (1948) found that at the outset of counselling the clients gave a preponderance of ambivalent and ambiguous statements. With the progress of therapy there was a marked shift from ambivalence to self-approval. In the present investigation also it was noticed that the subjects tended to voice ambiguous statements at the start of counselling. This type of statements were replaced by self-approval statements at the conclusion of counselling interviews.

When the subject enters into the counselling, he feels more or less worthless and judges himself in terms of standards set by others. He has his own ideal, but he perceives it as different from his present self. As the counselling proceeds he experiences very contradictory

attitudes toward himself. He gradually becomes more realistic in his perception of himself. He becomes less fearful of how he will be judged by others. With these changes he experiences himself as a more 'real' person, a more unified person.

Do the changes which occur during counselling bring about simple surface changes or do they alter the basic structure of personality ?

Investigations regarding personality changes reveal the fact that therapy brings a significant degree of change in the basic personality structure. This change seems to be in the direction of an increased unification and integration of personality; a lessened degree of neurotic tendency and of anxiety. A successful therapy brings a greater degree of acceptance of self and more constructive feelings and attitudes. Undergoing a successful therapy, a client can face a stress-creating situation. These personality changes which occur during therapy are statistically significant, but the amount of change as compared to the total structure of personality is small. A limited number of studies reveal that these personality changes are relatively permanent.

The present investigation offers some evidence to the fact that there are some personality changes which are

produced by the influence of counselling. For one thing the subjects have shown an increasing tendency for the realistic assessment of the self and the ideal self. There has been a marked shift in their attitudes towards others. Also there has been a marked decrease in the levels of neuroticism, anxiety and depression. The subjects became more objective, more realistic, more accepting and more analytic minded. No attempt has been made by the investigator to ascertain whether the changes are more or less stable over fairly longer intervals of time. It remains to be determined in a follow-up work, but the investigator is of the opinion that the changes once brought about through insight and self-understanding remain more or less stable.

There is a substantial clinical evidence that the behaviour of a client is progressively altered so that he moves towards greater maturity. Seeman (1949) found that during the latter part of therapy the clients' conversation moved in the direction of increased discussion on plan and behavioural steps to be undertaken by him. Thus the clients plan to change their behaviour and discuss the ways in which it could be changed. It has also been reported that the clients show increasing tolerance of frustration and they become less defensive as a result of therapy. On the whole the research

evidence regarding behavioural changes points to the fact that the behaviour changes in the more mature, self-directing and less defensive direction; that there is a decrease in the amount of psychological tension and that the client tends to make a more comfortable and more effective adjustment.

In the present investigation it was noted that there was little or no mention of the problems the subjects actually faced as the treatment advanced but increasing attention was paid by them to the discussion on ways and means to solve these problems. Moreover the ways and means that they suggested were definitely indicative of a more mature thinking. There was a high degree of tolerance among subjects, which was evident when they showed patience in listening to especially contrary views to those held by them regarding the solution of problems.

It should be noted here that the groups consisted of not only high and low self-esteem cases, but they also included both boys and girls. It is suggested by some researchers that there should be separate groups of boys and girls. In the present investigation no separate groups were formed, because the number of girls was quite small. When asked about the feeling the subjects had in their minds regarding the

presence of the members of opposite sex, they indicated that they enjoyed their company and that they had a chance to hear their views about the problems. Regarding the presence of high self-esteem cases the low self-esteem subjects reported that they did not feel any embarrassment and that nobody dominated the discussion. The subjects also reported that they would like to meet in future for further discussion because they immensely benefited from the new experience they had had in a group setting. Much of what has been discussed so far apply to low self-esteem subjects to greater extent and to high self-esteem subjects to some extent. The behavioural changes observed during counselling were of greater magnitude in the low self-esteem subjects than in the high self-esteem subjects. On the whole it appears that counselling treatment has produced significant improvement in the overall behaviour of the subjects.

Summary

In this chapter the data are analysed and interpreted. The data are based on the performance of high self-esteem as well as low self-esteem subjects on the self-esteem scale, the Depressive affect scale, the Neurotic scale and the Anxiety scale. The effects of counselling interviews have been

examined in terms of the number of subjects showing change in the expected direction, ^{the} number of subjects obtaining higher than certain score and ^{the} number of subjects obtaining lower than certain scores. The high self-esteem as well as low self-esteem experimental subjects were given a series of counselling interviews, whereas the control subjects were not given this treatment. In order to test the significance of the difference between mean scores of the two groups the techniques of analysis of variance and covariance were applied separately for the high and low self-esteem subjects for each of the four measures namely, self-esteem, neuroticism, depression and anxiety. The results indicated that both high and low self-esteem subjects showed changes in the level of their self-esteem, depression, neuroticism and anxiety in the expected direction under the influence of counselling interviews. The expected changes were far greater in the low self-esteem group than in the high self-esteem group under the influence of counselling. It is also observed that the control subjects do not show any appreciable change in the initial levels of their performance on measures of self-esteem, depression, neuroticism and anxiety over a fairly longer interval of time. The hypothesis that counselling interviews would bring about changes in the level of self-esteem, depression, neuroticism and anxiety is thus confirmed.

Chapter IV

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