Chapter Five

DISCUSSION

5.0.0 DISCUSSION

The aim of the present study was to analyze the impact of assertive training on nonassertive overanxious and withdrawn adolescents. The therapeutic treatments used for giving the assertive training were: role-playing, covert modeling and a combination of the two techniques.

The design of the present study was a pre-post design. The study was conducted at three levels, i.e. pre, post and followup.

The final sample of eighty adolescents was administered the three inventories at Pre, Post and Followup levels and the results thus obtained showing the effects of the therapeutic treatments given, were then analyzed and plotted.

5.1.0 Qualitative Discussion of Results

Hypothesis One

States, "There will be a correlation between the overanxious disorder and nonassertive behaviour. So the null hypothesis to be tested would be: There will be no correlation between the overanxious disorder and nonassertive behavior".

This null hypothesis was disproved.

As can be seen from the result of Product Moment of Correlation (Table 6), the correlation between overanxious disorder and nonassertive behaviour was

found to be positively significant (0.40) at 0.01 level of significance, indicating a direct relationship between them, i.e., overanxious disorder is essentially accompanied by nonassertive behaviour.

Hypothesis Two

States, "There will be a correlation between the withdrawn disorder and nonassertive behaviour. So the null hypothesis to be tested would be: There will be no correlation between the withdrawn disorder and nonassertive behaviour".

This null hypothesis was also disproved.

As can be seen from the result of Product Moment of Correlation (Table 6), the correlation between withdrawn disorder and nonassertive behaviour was also found to be positively significant (0.42) at 0.01 level of significance, indicating a direct relationship between these, in other words, withdrawn disorder also is essentially accompanied by nonassertive behaviour.

The first two hypotheses have proved that in adolescence the overanxious and withdrawn disorders are related to nonassertive behaviour. Nonassertiveness means the violation of one's rights by failing to express one's thoughts and needs openly and thereby, allowing others to disregard them. The symptoms of two disorders (DSM-III-R, 1987) also show the adolescents as ones who do not speak up their thoughts and feelings openly and remain overconcerned

about things to impress others or just avoid them. Therefore, it shows that both the disorders are related to nonassertiveness.

In some studies anxiety has been recognised as an inhibitor of assertive responses (Lange and Jakubowsky, 1976; Lieberman, King and deRisi, 1977). Therefore, clinical evidences have shown that for developing assertive skills it is important to control anxiety (Rotheram and Armstrong, 1977; Cox and Gunn, 1978).

Another study conducted by Percell, Berwick and Biegels (1974) has showned that the subjects when given assertion training show significant increase in assertiveness with a significant decrease in their anxiety. These studies support the above results.

As discussed in the Result's chapter the ANOVA values were calculated to find the differences in the treatment groups at all the three levels.

The ANOVA (Table 7) calculated for nonassertive overanxious disorder at Pre-Post level was found to be nonsignificant (0.7) at the Pre level. This may be because, before any treatment was given, all the four groups had similar kind of scores. At post level it was found to be significant (10.5) indicating that after the treatments were given, all the four groups differed from each other.

For Post-Followup level also the ANOVA (Table 8) was calculated. Again at Post level it was found to be significant (10.5), indicating that after the treatments were given the four groups differed from each other; and at Followup level also it was found to be significant (9.8) indicating that at followup level also the four groups differed from each other.

The ANOVA (Table 9) calculated for Pre-Followup level was found to be nonsignificant (0.7) at Pre level as no treatment had been given at that level. But at followup level it was found to be significant (9.8), indicating that at this level also the four groups differed.

The ANOVA was calculated for nonassertive withdrawn disorder as well. Again at Pre-Post level ANOVA (Table 10) was found to be non significant (2.7) at Pre level, because before any treatments were given all the four groups gave similar scores. At Post level it was found to be significant (29.9) indicating that after the treatments were given the four groups differed.

For Post-Followup level ANOVA (Table 11) was again significant (29.9) at Post level indicating that when treatment techniques were applied the four groups differed. At Followup level also it was found to be significant (28.3) indicating that the four groups differed from each other.

Again at Pre-Followup level the ANOVA (Table 12) calculated showed nonsignificant (2.7) result at Pre level for the reasons given above. At Followup level also it was significant (28.3) for the reasons stated above.

ANOVA was also calculated for the scores on nonassertive behaviour at all the three levels. At Pre-Post level again the ANOVA (Table 13) was found to be nonsignificant (0.6) at Pre level because before any treatment was given all the four groups had similar results. At Post level it was found to be significant (48.2) indicating that after the treatments were given the four groups differed from each other.

For Post-Followup level the ANOVA (Table 14) was found be significant (48.2) at Post level indicating that after treatments were given the four groups differed. At Followup level also it was found to be significant (44.7) indicating that the difference in the groups was there till the Followup level.

For Pre-Followup level the ANOVA (Table 15) showed the Pre level as nonsignificant (0.6) for the reasons given above. At Followup level it was significant (44.7) for the reasons stated above.

Since, the ANOVA's at the Post and Followup levels were found to be significant for all the four groups taken together, the t-scores were calculated to see the impact of the treatments given separately.

Hypothesis Three

States, "There will be an impact of role-playing on nonassertive overanxious adolescents. So the null hypothesis to be tested would be: There will be no impact of role-playing on nonassertive overanxious adolescents".
This null hypothesis was disproved.

The t-test results (Table 16) calculated for nonassertive overanxious disorder at Pre-Post level for role-playing group was found to be significant (7.5) which indicated the effectiveness of the role playing technique in reducing the nonassertive overanxious disorder in adolescents.

The above result was supported by the results of the parents and teachers (Table 16). Parents' t-score calculated for nonassertive overanxious disorder at Pre-Post level for role-playing group was found to be significant (6.5) and t-score of teachers' was also found to be significant (4.8).

This shows that the improvement in behaviour as reported by the adolescents was corroborated by their parents and teachers. The t-results of adolescents and parents were similar but the teachers' result was slightly low. The reason could be their relative uninterest and failure in observing the students' new repertoire of behaviour with full attention.

The t-test results (Table 17) calculated for the nonassertive overanxious disorder at Post-Followup level for role playing group was found to be

nonsignificant (1.2) indicating that even though there was not a significant change from post to followup level, the adolescents were able to maintain the newly learnt assertive behaviour from post level to followup level.

The above result was corroborated by the results of the parents and teachers (Table 17). Parents' t-score calculated for nonassertive overanxious disorder at Post-Followup level for role playing group was also found to be nonsignificant (1.3) and teachers' t-score was found to be nonsignificant (1.3). These results indicate that parents and teachers also agreed with the adolescents that they had been able to maintain their new behaviour from post to followup level.

At Pre-Followup level the t-test result (Table 18) for role playing group was found to be significant (6.6). This again indicates that the adolescents were able to sustain their change in behaviour over a time period of four months.

The above result was supported by the results of parents and teachers (Table 18). Parents' t-score calculated for this disorder at Pre-Followup level for role-playing group was found to be significant (6.2) and that of teachers too was significant (5.8) indicating that the parents and teachers also agreed that adolescents had been able to sustain the change in their behaviour till followup level.

Graph I shows the above results very clearly.

All the above results were further supported by the Totals, Means and Standard Deviations (S.D.) of the raw scores of adolescents, parents and teachers.

For nonassertive overanxious disorder the adolescents' Totals, Means and S.D.'s. for Pre-scores (Table 55) were: Total (706), Mean (70.6) and S.D. (4.6); for Post-scores (Table 56) were: Total (496), Mean (49.6) and S.D. (6.4); for Followup scores (Table 57) were: Total (445), Mean (44.5) and S.D. (11.0).

The Total & Mean scores show a continuous reduction from pre to post to followup level. This indicates that there was an improvement in the behaviour from pre to post level which was maintained till the followup level i.e. over the time gap period of four months. S.D. scores too indicate the impact of the role playing technique.

Graph XVI Shows the mean values of role playing group (T_1) indicating the reduction in scores from pre to post to followup level.

The results of parents and teachers were similar for this disorder. The parents' (Table 64) Totals, Means & S.D.'s for: Pre scores were: Total (676), Mean (67.6) & S.D. (8.1); Post scores were Total (483), Mean (48.3) and S.D. (6.9); and, Followup Scores were: Total (438), Mean (43.8) and S.D. (8.0).

Graph XIX shows the mean values of role playing group (T_1) indicating a reduction in scores from pre to post to followup level.

The teachers' (Table 67) Totals, Means and S.D.'s for: Pre-scores were: Total (659), Mean (65.9) and S.D. (4.2); Post-scores were: Total (519), Mean (51.9) and S.D. (7.7); and, Followup scores were: Total (474), Mean (47.4) of S.D. (7.0).

Graph XXII shows the mean values of role playing group (T_1) indicating a reduction in scores from pre to post to followup level.

The above results indicate that parents and teachers supported the results of adolescents.

The overall results again indicate the most significant impact of the role-playing technique at the Pre-Post level. The results also indicate towards the role playing technique as having a significant impact on the nonassertive overanxious disorder of adolescents.

Here is an example of the verbatim recording. Other examples are attached in Appendix. These recordings indicate the changes in adolescents behaviour after getting the training on assertiveness.

The verbatim report given by Sunita Yadav, a student in Kalka Public School states:

"I have gained lot of confidence in my self. Now I like my school and am able to concentrate on my studies. I am very happy to see this change in myself. My parents are also very happy about it. Now I don't feel ashamed in saying 'sorry' to my parents whenever I commit a mistake".

Lazarus (1966) has also proved that role playing is effective in helping persons to interact with others when they feel highly overanxious thus, supporting the above results.

Hypothesis Four

States, "There will be an impact of role playing on nonassertive withdrawn adolescents. So the null hypothesis to be tested would be: There will be no impact of role-playing on nonassertive withdrawn adolescents".

This null hypothesis was also disproved.

The t-test results (Table 19) calculated for nonassertive withdrawn disorder at Pre-Post level for role playing group was found to be highly significant (14.6) which indicates the high effectiveness of the role playing technique in reducing the nonassertive withdrawn disorder in adolescents.

This result was supported by the results of parents and teachers as well (Table 19). Parents' t-scores calculated for nonassertive withdrawn disorder at Pre-

Post level for role playing group was found to be highly significant (12.6) and that of teachers' also was found to be significant (2.2).

This shows that the improvement in behaviour as reported by the adolescents was supported by their parents and teachers.

The t-results of adolescents and parents were similar but for teachers it was low. This again may be attributed to lack of interest on their part in acknowledging the adolescents new behaviour.

The t-result (Table 20) calculated for the above disorder at Post-Followup level for this group was also found to be significant (2.3). This indicated that adolescents were not only able to maintain their new behaviour till followup level but they could also improve on their new assertive behaviour.

The t-results of the parents and teachers were also calculated (Table 20). Parents' t-score calculated for this disorder at Post-Followup level for this group was found to be nonsignificant (0.9) and that of teachers' was found to be nonsignificant (1.3).

These results indicate that even though the parents and teachers agreed that adolescents had maintained their newly learnt behaviour till the followup yet they did not agree that it had improved any further.

The t-results (Table 21) calculated for nonassertive withdrawn disorder at Pre-Followup level for role playing group was found to be highly significant (11.6) which again showed that adolescents had been able to successfully maintain the behaviour learnt even after the time gap period of four months.

The above result was supported by the results of parents and teachers (Table 21). Parents' t-score calculated for this disorder at Pre-Followup level for role playing group was also found to be highly significant (10.7) and those of teachers' also was found to be significant (6.9). This indicates agreement of the parents and teachers with the adolescents' results.

Graph V shows the above results very clearly.

All the above results were further corroborated by the Totals, Means and Standard Deviation (S.D's) of the raw scores of adolescents, parents and teachers.

For nonassertive withdrawn disorder the adolescents' Totals, Means and S.D.'s for: Pre-scores (Table 58) were: Total (600), Mean (60.0) & S.D. (2.8); for Post-scores (Table 59) were: Total (381), Mean (38.1) & S.D. (3.5); and for Followup-scores (Table 60) were: Total (322), Mean (32.2) and S.D. (6.8).

The above Total and Mean values show a continuous reduction from pre to post to followup levels indicating that there was an improvement in behaviour at Post level which was maintained till the Followup level. S.D. scores also indicate the impact of the technique applied.

Graph XVII shows the mean values of role playing groups (T_1) indicating the reduction in scores from pre to post to followup level.

The parents' and teachers' results were similar. For nonassertive withdrawn disorder the parents' (Table 65) Totals, Means and S.D.'s for: Pre-scores were: Total (585), Mean (58.5) and S.D. (5.4); Post-scores were: Total (407), Mean (40.7) and S.D. (3.4); and, Followup-scores were: Total (393), Mean (39.3) and S.D. (3.6).

Graph XX shows the mean values of role playing group (T_1) indicating the reduction in scores from pre to post to followup level.

The teachers' (Table 68) Totals, Means and S.D.'s for: Pre-scores were: Total (556), Mean (55.6) and S.D. (5.2); Post-scores were: Total (423), Mean (42.3) and S.D (3.8); and, Followup-scores were: Total (396), Mean (39.6) and S.D. (4.8).

Graph XXIII shows the mean values of role playing group (T_1) indicating a reduction in scores from pre to post to followup level.

The results above indicate that parents' and teachers' results supported the adolescents' results.

The overall results indicate the most significant impact of the role playing technique at the Pre-post level. The results also indicate that role playing had a highly significant impact on the nonassertive withdrawn disorder of adolescents.

Here is an example of the verbatim recording. Other examples are attached in Appendix. These recordings indicate the improvement in adolescents after they had received the assertive training.

The verbatim report given by Pooja Gupta, a student of St. George's School. states:

"Now I can ask questions from the teachers in the class. I can now talk to the strangers. Now I can actually talk to my friend when she is angry with me. Before these classes I used to only think about talking but could not talk to her. She likes this change in me and appreciates it. I feel very happy about it".

Research findings of Cotler and Guerra (1976) also suggest role playing to be effective in teaching appropriate assertive ways of accepting and giving appreciation, accepting criticism, expressing tenderness and respect for others.

The finding supports the above results.

Analysis of Nonassertive Behaviour

The scores obtained on the inventory for nonassertive behaviour were also statistically analyzed. This was done to ensure that while the disorders of the adolescents were getting reduced a simultaneous increase in their assertive behaviour was taking place.

Table 22 shows the t-score for the nonassertive behaviour at Pre-Post level as highly significant (16.8) for the adolescents. This result indicates the highly significant impact of the role playing technique in increasing the assertive behaviour of the adolescents.

The parents' t-score (Table 22) was also highly significant (14.3) indicating their support to the adolescents' result.

Table 23 shows the t-score for the nonassertive behaviour at Post-Followup level as significant (3.1) for adolescents. This indicates adolescents' further improvement in their assertive behaviour from post to followup level. Parents' t-score (Table 23), was found to be nonsignificant (0.9) indicating that parents agreed that the adolescents had maintained their new behaviour till followup level but according to them there was no further improvement in their behaviour.

Table 24 shows the t-scores for the nonassertive behaviour at Pre-Followup level as highly significant (16.7) for adolescents, indicating that the adolescents had improved and retained the improvement even after a gap of four months. Parents' t-score (Table 24) was also found to be highly significant (14.7) indicating that even they agreed that the adolescents did maintain their assertive behaviour till the followup level.

Graph IX shows the results clearly signifying the improvement in behaviour.

All the above results were further supported by the Totals, Means and Standard Deviation (S.D.'s) of the raw scores of adolescents and parents.

For nonassertive behaviour the adolescents Totals, Means and S.D.'s for: Pre-scores (Table 61) were: Total (1348), Mean (67.4) and S.D. (3.8); Post-scores (Table 62) were: Total (874), Mean (43.7) and S.D. (5.1); and, Followup-scores (Table 63) were: Total (745), Mean (37.2) and S.D. (7.6).

The Total and Mean scores show a continuous reduction indicating the increase in assertive behaviour and its maintenance from pre to post to followup levels. The S.D. scores also show high impact of the role playing technique.

Graph XVIII shows the mean scores indicating the reduction in nonassertive behaviour from pre to post to followup level for the role playing group (T_1).

The parents' results were similar. For nonassertive behaviour the parents' (Table 66) Totals, Means and S.D.'s for: Pre-scores were: Total (1241), Mean (62.1) and S.D. (17.4); Post-scores were: Total (881), Mean (44.1) and S.D. (4.5); and, Followup-scores were: Total (850), Mean (42.5) and S.D. (5.5).

Graph XXI shows the mean values of the role playing group (T_1) indicating a continuous reduction from pre to post to followup level.

The above results therefore show agreement between the scores of adolescents and parents.

The overall results indicate the most significant impact of the role playing technique at the Pre-Post level. The results also indicate that role-playing technique had a highly significant impact on the nonassertive behaviour of adolescents.

The results of hypothesis three and four thus indicate that role playing has been very successful as an assertive therapeutic technique in reducing both the overanxious disorder and the withdrawn disorder by making the adolescents more assertive in their behaviour.

Hypothesis Five

States, "There will be an impact of covert modeling on nonassertive overanxious adolescents. So the null hypothesis to be tested would be: There will be no impact of covert modeling on nonassertive overanxious adolescents".

This null hypothesis was disproved.

Here also t-test results (Table 16) calculated for nonassertive overanxious disorder at Pre-Post level for covert modeling group was found to be significant (6.3) indicating that the covert modeling technique in reducing the nonassertive overanxious disorder in adolescents was effective.

The above result was supported by the results of the parents and teachers (Table 16). Parents' t-score calculated for the above disorder at Pre-Post level for covert modeling group was found to be significant (5.4). Even teachers' t-score was found to be significant (2.8). These results indicate that the parents and the teachers also agreed that the nonassertive overanxious disorder had reduced in the adolescents. Adolescents' and parents' scores were quite similar but those of teachers' was relatively low. This also may be attributed to their failure in observing the students' newly acquired behaviour with full attention.

The t-test results (Table 17) calculated for this disorder at Post-Followup level for the above group was found to be nonsignificant (1.2), indicating that the

adolescents had been able to retain their change in behaviour upto the followup level.

The above result was supported by the results of the parents and teachers (Table 17) because parents' t-score calculated for nonassertive overanxious disorder at Post-Followup level for this group was also found to be nonsignificant (1.3) and so was that of the teachers' (0.3). These results indicate that parents and teachers agreed with the adolescents that they had been able to maintain their new behaviour from post to followup level.

The t-test results (Table 18) calculated for the above disorder at Pre-Followup level for this group was found to be significant (6.1) which again shows that adolescents were able to maintain their change in behviour over a period of four months.

The above result was also supported by the results of the parents and the teachers (Table 18). Parents' t-scores at this level was found to be significant (6.4) and so was that of teachers' (3.5). This again indicates that even the parents and teachers agreed that the adolescents had been able to maintain their new assertive behaviour till the followup level. The teachers however, gave a low score, perhaps due to lack of interest in acknowledging the adolescents' new behavioural repertoire.

Graph II shows the above results very clearly.

All the above results were further supported by the Totals, Means and Standard Deviations (S.D.'s) of the raw scores of adolescents, parents and teachers.

For nonassertive overanxious disorder the adolescents' Totals, Means of S.D.'s for: Pre-scores (Table 55) were: Total (683), Mean (68.3) and S.D. (5.8); Post-scores (Table 56) were: Total (519), Mean (51.9) and S.D. (5.1); and, Followup-scores (Table 57) were: Total (482), Mean (48.2) and S.D. (8.2).

The Total and Mean scores show a continuous reduction from pre to post to followup levels indicating improvement in the behaviour from pre to post level which was maintained till the followup level. S.D. scores also show the impact of the treatment technique used.

Graph XVI shows the mean values of covert modeling group(T_2) indicating the reduction in scores from pre to post to followup levels.

The parents' and teachers' results were similar. For nonassertive overanxious disorder the parents' (Table 64) Totals, Means and S.D.'s for: Pre-scores were: Total (680), Mean (68.0) and S.D. (5.9); Post-scores were: Total (522), Mean (52.2) and S.D. (6.7); and, Followup scores were: Total (482), Mean (48.2) and S.D. (6.9).

Graph XIX shows the mean score values of covert modeling group (T_2) indicating a reduction in the scores from pre to post to followup level.

The teachers' (Table 67) Totals, Means and S.D.'s for: Pre-scores were: Total (678), Mean (67.8) and S.D. (7.9); Post-scores were: Total (575), Mean (57.5) and S.D. (7.3); and, Followup-scores were: Total (567), Mean (56.7) and S.D. (5.2).

Graph XXII shows the mean values of covert modeling group (T_2) indicating a reduction in scores from pre to post to followup level.

The above results also indicate that parents' and teachers' result supported those of adolescents'.

The overall results indicate that most significant impact of the covert modeling technique was at the Pre-Post level. The results also indicate towards the covert modeling technique as having a significant impact on nonassertive overanxious disorder of adolescents.

Here is an example of the verbatim recording. Other examples are attached in the Appendix. These recordings show the changes in the adolescents' behaviour after receiving the assertive training.

The verbatim report of Liji Rajan, a student of Kalka Public School state:

> "I control my anger now. I don't feel nervous about talking to teachers. I sleep well at night. I can fight for my rights".

Hypothesis Six

States, "There will be an impact of covert modeling on nonassertive withdrawn adolescents. So the null hypothesis to be tested would be: There will be no impact of covert modeling on nonassertive withdrawn adolescents". This null hypothesis was also disproved.

The t-test result conducted for (Table 19) for nonassertive withdrawn disorder at Pre-Post level for covert modeling group was found to be significant (6.1), thus indicating the impact of covert modeling on nonassertive withdrawn disorder of adolescents.

The above result was supported by the parents' and teachers' t-scores (Table 19). The t-scores of parents' as well as teachers' calculated for nonassertive withdrawn disorder at Pre-Post level for covert modeling group was found to be significant with (5.3) and (3.0) values, respectively.

This indicates that the parents and teachers also reported improvement in behaviour of the adolescents. The teachers' result however, was again slightly low, perhaps because of their uninterest in noticing the adolescents' change in behaviour with full attention.

The t-results (Table 20) calculated for the above disorder at Post-Followup level for covert modeling group was also found to be nonsignificant (0.5) indicating that the adolescents were able to maintain their new behaviour till the followup level, i.e, over the time gap of four months.

The parents' and teachers' t-results were also calculated (Table 20). The t-scores of parents' and teachers' calculated for this disorder at Post-Followup level for above group were found to be nonsignificant. These values were (1.3) and (0.6), respectively.

These results too indicate that parents and teachers also agreed with the adolescents that they had maintained their improvement in behaviour till the Followup level.

The t-results (Table 21) calculated for this disorder at Pre-Followup level for this group was found to be significant (5.4) which again shows that adolescents' were successful in maintaining their new behaviour over the time gap period of four months.

The above result was supported by the parents' and teachers' results (Table 21). Parents' t-score (7.0) and teachers' t-score (4.7) calculated for nonassertive withdrawn disorder at Pre-Followup level for this group was found to be significant. Infact the parents' result showed a better maintenance of the change in behaviour of adolescents.

Graph VI shows the above results very clearly.

All the above results were further corroborated by the Totals, means and Standard Deviations (S.D.'s) of the raw scores of adolescents, parents and teachers.

For nonassertive withdrawn disorder the adolescents' Totals, Means and S.D.'s for: Pre-scores (Table 58) were: Total (559), Mean (55.9) and S.D. (3.9); Post-scores (Table 59) were: Total (407), Mean (40.7) and S.D. (6.5); and, Followup-scores were: Total (391), Mean (39.1) and S.D. (8.4).

The above Total and Mean values show a continuous reduction from pre to post to followup levels indicating an improvement in the behaviour from pre to post level which was maintained till the followup level. S.D. scores also indicate the impact of the technique applied.

Graph XVII shows the mean values of covert modeling group (T_2) indicating a reduction in scores from pre to post to followup level.

The parents' and teachers' results were also similar. For nonassertive withdrawn disorder the parents' (Table 65) Totals, Means and S.D.'s for: Pre-scores were: Total (561), Mean (56.1) and S.D. (4.7); Post-scores were: Total (427), Mean (42.7) and S.D. (5.9); and, Followup -scores were: Total (393), Mean (39.3) and S.D. (5.6).

Graph XX shows the mean values of covert modeling group (T_2) indicating the reduction in scores from pre to post to followup level.

The teachers' (Table 68) Totals, Means and S.D.'s for: Pre-scores were: Total (542), Mean (54.2) and S.D. (5.6); Post-scores were: Total (542), Mean (54.2) and S.D. (5.6); and, Followup-scores were: Total (400), Mean (40.0) and S.D. (7.0).

Graph XXIII shows the mean values of covert modeling group (T_2) indicating a reduction in scores from pre to post to followup level.

The results above indicate that parents' and teachers' results supported the adolescents' results.

The overall results indicate the most significant impact of the covert modeling technique at Pre-Post level. The results also show that covert modeling has had a significant impact on the nonassertive withdrawn disorder of adolescents.

Here is an example of the verbatim recording. Other examples are attached in Appendix. These recordings indicate the changes in behaviour of the adolescents after they received the assertive training.

The verbatim report given by Ashwani Bindroo, a student of Kalka Public School states:

> "After these classes, I have changed very much in my ways of talking. I am making new friends and talk to them more openly. Now I don't feel nervous about it. I can answer questions in my class".

Analysis of Nonassertive Behaviour

Here too, the scores obtained on the inventory for nonassertive behaviour were statistically analyzed for the same purpose as for role playing technique.

Table 22 shows the t-score of the nonassertive behaviour at Pre-Post level as significant (10.1) for the adolescents. This results indicates a significant impact of the covert modeling technique in increasing the assertive behaviour of the adolescents. The parents' t-score (Table 22) was also significant (8.8) indicating their support to the adolescents' result.

Table 23 shows the t-score of the nonassertive behaviour at Post-Followup level as significant (2.7) for adolescents, indicating that the adolescents not only maintained their change in behaviour but also reported a further increase in their assertive behaviour from post to followup level.

Parents' t-score (Table 23) was found to be nonsignificant (1.4) indicating that parents also reported that adolescents had retained their new behaviour from post to followup level but did not report any further improvement in the behaviour.

Table 24 shows the t-scores for the above behaviour at Pre-Followup level as significant (10.6). This also indicates that the adolescents had successfully been able to retain their newly learnt behaviour even after a gap of four months.

Graph X shows these results clearly signifying the improvement in behaviour.

All the above results were further supported by the Totals, Means and Standard Deviations (S.D.'s) of the raw scores of adolescents and parents.

For nonassertive behaviour the adolescents' Totals, Means and S.D.'s for: Pre-scores (Table 61) were: Total (1359), Mean (68.0) and S.D. (1.2); Post-scores (Table 62) were: Total (1016), Mean (50.8) and S.D.(6.9); and, Followup scores (Table 63) were: Total (871), Mean (43.5) and S.D. (9.8).

The Total and Mean scores show a continuous reduction indicating the increase in assertive behaviour and the maintenance of this improvement from pre to post to followup level. The S.D. scores also showed the impact of the covert modeling technique.

Graph XVIII shows the mean scores indicating the reduction in nonassertive behaviour from pre to post to followup level for the covert modeling group (T_2).

The parents' results were similar. For non-assertive behaviour the parents' (Table 66) Totals, Means and S.D.'s for: Pre-scores were: Total (1305), Mean (65.3) and S.D. (15.5); Post-scores were: Total (997), Mean (49.8) and S.D. (6.9); and, Followup-scores were: Total (934), Mean (46.7) & S.D. (6.3).

Graph XXI shows the mean values of the covert modeling group (T_2) indicating a continuous reduction from pre to post to followup level.

The above results show that the parents' scores agreed with the adolescents' scores.

The overall results indicate the most significant impact of the covert modeling technique at the Pre-Post level. The results also indicate that covert modeling had a significant impact on the nonassertive behaviour of adolescents.

The results of hypotheses five and six indicated that covert modeling had been successful as an assertive therapeutic technique in reducing both nonassertive overanxious and nonassertive withdrawn disorders by making the adolescents more assertive in their behaviour.

Kazdin (1979) found covert modeling to be effective in developing assertive behaviour of his subjects which was retained upto a six months followup.

Rosenthal and Reese (1976) also found covert modeling to be highly effective in reducing nonassertive behaviour among their nonassrtive subjects. These studies support the above results.

Hypothesis Seven

States, "There will be an impact of the two techniques combined on nonassertive overanxious adolescents. So the null hypothesis to be tested would be: There will be no impact of the two techniques combined on nonassertive overanxious adolescents".

This null hypothesis was also disproved.

The t-test results (Table 16) calculated for nonassertive overanxious disorder at Pre-Post level for the two techniques combined group was found to be significant (5.1) which indicates that the two techniques in combination were effective in reducing the nonassertive overanxious disorder in adolescents.

The above result was supported by the parents' and teachers' results (Table 16). Parents' t-score calculated for nonassertive overanxious disorder at Pre-Post level for the two techniques combined group was found to be significant (5.7) but for teachers' it was found to be nonsignificant (1.1).

This indicates that the parents agreed with the adolescents that they had improved in their behaviour. The teachers' nonsignificant result may have been due to their lack of interest in noticing the adolescents' newly acquired assertive behaviour with keen interest.

The t-test result (Table 17) calculated for the above disorder at Post-Followup level for the two techniques combined group was found to be nonsignificant (0.6) indicating that even though there was not a significant change the adolescents were able to maintain the change in their behaviour from post to followup level.

The above result was corroborated by the results of the parents and teachers (Table 17). The t-scores of parents' (0.3) and teachers' (0.9) calculated for ths disorder at Post-Followup level for the above group was also found to be nonsignificant. These results indicate that the parents and teachers also agreed with adolescents that their new behaviour had been retained from post to followup level.

But the t-test result (Table 18) calculated for this disorder at Pre-Followup level for the above group was found to be significant (4.7) indicating that adolescents had been able to maintain the improvement in their behaviour over the time gap period of four months.

The above result was supported by the parents' and the teachers' results (Table 18). Parents' t-score calculated for the nonassertive overanxious disorder at Pre-Followup level for the two techniques combined group was found to be significant (6.8) but for teachers' again it was found to be nonsignificant (1.4). This could be because the teachers' had failed to noticed the behaviour change in the adolescents. But the parents' result was higher than the adolescents which may indicate that according to parents the adolescents had been more successful in increasing their assertive behaviour upto the followup level than was reported by the adolescents.

Graph III shows the above results very clearly.

All the above results were further supported by the Totals, Means and Standard Deviations (S.D.'s) of the raw scores of adolescents, parents and teachers.

For nonassertive overanxious disorder the adolescents' Totals, Means and S.D.'s for: Pre-scores (Table 55) were: Total (679), Mean (67.9) and S.D. (5.5); Post-Scores (Table 56) were: Total (499) Mean (49.9) and S.D. (8.9); and, Followup-scores (Table 57) were: Total (470), Mean (47.0) and S.D. (12.2).

The Total and Mean values show a continuous reduction from pre to post to followup level indicating that there was a change at the post level which was maintained till the followup level conducted after a gap of four months.

Graph XVI shows the mean values of the two techniques combined group (T_3) indicating the reduction in scores from pre to post to followup level.

The parents' and teachers' results were also similar. For nonassertive overanxious disorder the parents' (Table 64) Totals, Means and S.D.'s for: Pre-scores were: Total (672), Mean (67.2) and S.D. (4.9); Post-scores were: Total (504), Mean (50.4) and S.D. (7.4); and, Follow up scores were: Total (493), Mean (49.3) and S.D. (6.2).

Graph XIX shows the mean values of the two techniques combined group (T_3) indicating a reduction in scores from pre to post to followup levels.

The teachers' (Table 67) Totals, Means and S.D.'s for: Pre-scores were: Total (614), Mean (61.4) and S.D. (26.3); Post scores were: Total (516), Mean (51.6) and S.D. (6.7); and, Follow up scores were: Total (487), Mean (48.7), S.D. (7.1).

Graph XXII shows the mean values of the two techniques combined group (T_3) indicating a reduction in scores from pre to post to folowup level.

The above results indicate that parents' and teachers' results supported the adolescents' results.

The overall results indicate the most significant impact of the two techniques combined at Pre-Post level. The results also indicate towards the combination of the two techniques as having a significant impact on the nonassertive overanxious disorder of adolescents.

There is an example of the verbatim recording. Other recordings are attached in Appendix. These recordings indicate the changes in adolescents after receiving the assertive training.

The verbatim report of Anshuman, a student of Cambridge School states:

> "I have started making friends of my own age. I have become more polite in talking to people. I have now started answering questions in my class on my own. I feel that I have become peaceful".

Hypothesis Eight

States, "There will be an impact of the two techniques combined on nonassertive withdrawn adolescents. So the null hypothesis to be tested would be: There will be no impact of the two techniques combined on the non assertive withdrawn adolescents".

This null hypothesis was also disproved.

The t-test result was again conducted (Table 19) calculated for nonassertive withdrawn disorder at Pre-Post level for the two techniques combined group was found to be significant (8.9), which indicates the effectiveness of the combination of the two techniques in reducing the nonassertive withdrawn disorder in adolescents.

Here also the above result was supported by the parents' and teachers' results (Table 19). The t-scores of parents' (7.5) and teachers' (5.6) calculated for nonassertive withdrawn disorder at Pre-Post level for the two techniques combined group was found to be significant.

This shows that the improvement in behaviour as reported by the adolescents was supported by their parents and teachers.

The t-results of adolescents and parents were similar but for teachers it was again slightly low. The reason again could be their lack of interest in the adolescents' behavioural change.

The t-result (Table 20) calculated for the above disorder at Post-Followup level for the two techniques combined group was found to be nonsignificant (1.6) indicating that adolescents had been able to sustain the change in behaviour till the follow up level.

The parents' and teachers' t-results were also calculated (Table 20). Parents' t-scores calculated for non-assertive withdrawn disorder at Post-Follow up level for the two techniques combined group was found to be non-significant but for teachers' it was found to be significant (2.2).

These results indicate that even though the parents agreed that the adolescents did not show any significant improvement in behaviour till followup, the teachers differed. According to teachers, the adolescent had shown significant improvement in their behaviour over the time gap perio·' of four months.

The t-results (Table 21) calculated for this disorder at Pre-Followup level for the said group was found to be significant (8.5) which again shows that the adolescents had been able to successfully maintain the behaviour learnt even after the time gap period of four months.

The above result was supported by the parents' and the teachers' results as well (Table 21). Parents' t-scores calculated for non-assertive withdrawn disorder at Pre-Followup level for the two techniques combined group was also found to be significant (10.4) and teachers' t-score too was found to be significant (8.5). This indicates similarity between the adolescents' and the teachers' results meaning thereby the further improvement and maintenance of the new behaviour as reported by adolescents was agreed upon by the teachers as well. Parents' result was higher indicating that according to them

the adolescents had made greater improvement in their behaviour than what the adolescents themselves had reported.

Graph VII shows the above results very clearly.

All the above results were further corroborated by the Totals, Means and Standard Deviations (S.D.'s) of the raw scores of adolescents, parents and teachers.

For nonassertive withdrawn disorder the adolescents' Totals, Means and S.D.'s for: Pre-scores (Table 58) were: Total (564), Mean (56.4) and S.D. (3.0); Post-scores (Table 59) were: Total (413), Mean (41.3) and S.D. (4.0); and, Follow-up (Table 60) were: Total (375), Mean (37.5) and S.D. (5.8).

The above Total and Mean values again show a continuous reduction from pre to post follow up level. This indicates that there was an improvement in behaviour at post level and it was maintained over the time gap period of 4 months. S.D. scores also indicates the impact of the combination of the techniques applied.

Graph XVII shows the mean values of the two techniques combined group (T_3) indicating the reduction in scores from pre to post to follow up level.

The parents' and teachers' results were also similar. For non-assertive withdrawn disorder the parents' (Table 65) Totals, Means and S.D.'s for: Pre-scores were: Total (567), Mean (56.7) and S.D. (4.7); Post-scores were: Total (400), Mean (40) and S.D. (4.7); and, Follow-up scores were: Total (368), Mean (36.8) and S.D. (3.6).

Graph XX shows the mean values of the two techniques combined group (T_3) indicating the reduction in scores from pre to post to followup level.

The teachers' (Table 68) Totals, Means and S.D.'s for: Pre scores were: Total (560), Mean (56) and S.D. (0.89); Post scores were: Total (414), Mean (41.4) and S.D. (5.7); and, Followup scores were: Total (371), Mean (37.1) and S.D. (4.0).

Graph XXIII shows the mean values of the two techniques combined group (T_3) indicating a reduction in scores from pre to post to followup level.

The results again indicate that parents' and teachers' results supported the adolescents' results.

The overall results indicate the most significant impact of the combination of the two techniques at the Pre-Post level. The results also indicate that this combination had a significant impact on the non-assertive withdrawn disorder of adolescents.

Below is an example of the verbatim recording. Other examples attached in Appendix also show the improvement in adolescents' behaviour after they had received the assertive training.

The verbatim report of Vijaypal, a student of St. George's School is following:

> "I can talk to strangers easily. I am able to fight when somebody says anything wrong to me. I can make friends with girls. I can ask others to help me more openly".

Analysis of Nonassertive Behaviour

The scores obtained on the inventory for nonassertive behaviour were also statistically analyzed for the same purpose as for role playing technique.

Table 22 shows the t-scores of the nonassertive behaviour at Pre-Post level as highly significant (10.1) for the adolescents. This result indicates the significant impact of the combination of the techniques in increasing the assertive behaviour of the adolescents. The parents' t-score (Table 22) was also significant (7.8), again indicating the parents' approval of the adolescents improvements in assertive behaviour.

Table 23 shows the t-score of the nonassertive behaviour at Post-Followup level as nonsignificant (1.2) for adolescents indicating their ability to maintain the assertive behaviour learnt at post level till the followup level. Parents' t-scores (Table 23) also shows nonsignificant (1.5) result indicating that even parents agreed with the adolescents that they had maintained their new behaviour till followup level.

Table 24 showed the t-scores for the nonassertive behaviour at Pre-Followup level as significant (9.1) for adolescents indicating that adolescents had not only improved but retained that improvement in behaviour till the followup level.

Parents' t-score (Table 24) was also found to be significant (8.0) indicating even their support to the adolescents' results.

Graph XI shows these results clearly signifying the improvement in behaviour.

All the above results were further supported by the Totals, Means & Standard Deviations (S.D's) of the raw scores of adolescents and parents.

For nonassertive behaviour the adolescents' Totals, Means and S.D's for: Pre-scores (Table 61) were: Total (1341), Mean (67.1) & S.D. (2.1); Post-scores (Table 62) were: Total (978), Mean (48.9) & S.D. (7.1); and, Followup scores (Table 63) were: Total (907), Mean (45.3) and S.D. (10.2).

The Total and Mean scores show a continuous reduction indicating the increase in assertive behaviour and the maintenance of that improvement from pre to post to followup levels. The S.D. scores too showed a high impact of the two techniques combined therapy.

Graph XVIII shows the mean scores indicating the reduction in nonassertive behaviour from pre to post to followup level for the two techniques combined group (T_3).

The parents' results were similar. For nonassertive behaviour the parents' (Table 66) Totals, Means and S.D's for: Pre-scores were: Total (1359), Mean (67.9) and S.D. (8.0); Post-Scores were: Total (998), Mean (49.8) and S.D. (7.3); and, Followup scores were: Total (923), Mean (462) and S.D. (7.7).

Graph XXI shows the mean values of the two techniques combined group (T_3) indicating a continuous reduction from pre to post to followup level.

The above results show that the scors of parents approve the scores of adolescents.

The overall results indicate the most significant impact of the combination of the two techniques at the Pre-Post level. The results also indicate that the combination of the two techniques had a significant impact on the nonassertive behaviour of adolescents.

The results for hypotheses seven and eight thus indicated that the combination of the two techniques had been successful as an assertive therapeutic technique in reducing both the overanxious disorder and the withdrawn disorder by making the adolescents more assertive in their behaviour.

Hypothesis Nine

States, "There will be a reduction in the nonassertive overanxious disorder of adolescents belonging to the control group. So the null hypothesis to be tested would be: There will be no reduction in the nonassertive overanxious disorder of adolescents belonging to the control group".

This null hypothesis was proved.

The t-test result (Table 17) of nonassertive overanxious disorder at Pre-Post level was found to be nonsignificant (0.3) indicating no change in the scores from pre to post level. The parents' and teachers' t-scores (Table 16) were also found to be nonsignificant (0.5) and (0.2), respectively. These results supported the adolescents' results.

The t-test result (Table 17) of nonassertive overanxious disorder at Post-Followup level also was nonsignificant (0.3) indicating no change in the disorder from Post to Followup level. The t-results (Table 17) of parents (0.1) and teachers (1.0) were also nonsignificant indicating agreement with the adolescents' result.

The t-test result (Table 18) of the above disorder at Pre-Followup level also was nonsignificant (0.0) indicating no change at all in the disorders from Pre to Followup level. The t-test results (Table 18) of parents (0.7) and teachers (0.8) were also nonsignificant meaning thereby, that they agreed with the adolescents' result.

Graph IV shows the above results very clearly.

Similar sort of results were evident from the Totals, Means and Standard Deviations (S.D.'s). At Pre level (Table 55) they were: Total (667), Mean (66.7) and S.D. (6.8); at Post level (Table 56) they were: Total (657), Mean (65.7) and S.D. (6.9); and, at Followup level (Table 57) they were total (667), Mean (66.7) and S.D. (6.7). These scores indicated that there was no significant reduction in scores from pre to post to followup level.

Graph XVI shows the mean values of control group (T_4) indicating no significant reduction in scores from pre to post to followup level.

The parents' (Table 64) Totals, Means and S.D's were for: Pre-Scores: Total (677), Mean (67.7) and S.D. (6.1); Post-Scores: Total (660), Mean (66.0) and S.D. (7.2); and, Followup scores: Total (656), Mean (65.6) and S.D. (6.2).

Graph XIX shows the mean values of the control group (T_4) indicating no change in scores from pre to post to followup level.

For teachers' (Table 67) the Totals, Means and S.D's were for: Pre-scores: Total (663), Mean (66.3) and S.D. (5.3); Post-scores: Total (668), Mean (66.8) and S.D. (5.4); and, Followup-scores: Total (645), Mean (64.5) and S.D. (4.4). These results also indicate that there was no change in the disorder of the adolescents.

Graph XXII shows the mean values of the control group (T_4) indicating no significant change in scores from pre to post to followup level.

The above results indicate that parents and teachers too supported the adolescents' results.

The overall results clearly indicated that there were no significant differences in the scores of the control group of nonassertive overanxious adolescents as no treatment was applied on them to reduce their disorder behaviour.

Hypothesis Ten

States, "There will be a reduction in the nonassertive withdrawn disorder of adolescents belonging to the control group. So the null hypothesis to be tested would be: There will be no reduction in the nonassertive withdrawn disorder of adolescents belonging to the control group".

This null hypothesis was also proved.

The t-test result (Table 19) of nonassertive withdrawn disorder at Pre-Post level was found to be nonsignificant (0.2) indicating no change in the disorder from pre to post level.

The parents' and teachers' t-scores (Table 19) were also nonsignificant (0.5) and (0.2), respectively. These results supported the adolescents' results.

The t-test result (Table 20) of nonassertive withdrawn disorder at Post-Followup level was also nonsignificant (0.5) again indicating no change in the disorder from post to followup level. The t-results (Table 20) of parents (0.02) and teachers (0.2) were also nonsignificant meaning they agreed with the adolescents' result.

The t-test result (Table 21) of nonassertive withdrawn disorder at Pre-Followup level was also nonsignificant (0.2) indicating again no change in the disorder behaviour from pre to followup level. The t-test results (Table 21) of parents (0.3) and teacher (0.6) were also nonsignificant indicating their agreement with the adolescent's result.

Graph VIII shows the above results very clearly.

Similar kind of results were evident from the Totals, Means and Standard Deviations (S.D's) of the nonassertive withdrawn adolescents. At Pre level (Table 58) they were: Total (574), Mean (57.4) and S.D. (3.5); at Post-level

(Table 59) they were: Total (579), Mean (57.9) and S.D. (5.2); and, at Followup-level (Table 60) they were: Total (590), Mean (59.0) and S.D. (4.8). These scores too indicate that no significant reduction had occurred in scores from pre to post to followup level.

Graph XVII shows the mean values of control groups (T_4) indicating the reduction in scores form pre to post to followup level.

The parents' (Table 65) Totals, Means and S.D's were for: Pre-score: Total (558), Mean (55.8) and S.D. (13.2); Post-scores: Total (570), Mean (57.0) and S.D. (13.4); and, Followp-scores: Total (571), Mean (57.1) and S.D. (13.6).

Graph XX shows the mean values of the control group (T_4) indicating no significant reduction in scores from pre to post to followup level.

For teachers' (Table 68) the Totals, Means and S.D's were for: Pre-Scores: Total (536), Mean (53.6) and S.D. (4.0); Post-Scores: Total (555), Mean (55.5) and S.D. (5.0); and, Followup-scores: Total (550), Mean (55.0) and S.D. (4.8). These results also indicate that there was no change in the disorder of the adolescents.

Graph XXIII shows the mean values of control group (T_4) indicating no reduction in scores from pre to post to followup level.

The results above indicate that parents and teachers too supported the adolescents' results.

The overall results clearly showed that there were no significant differences in the scores of the control group of nonassertive withdrawn adolescents as no treatment techniques were applied on them to reduce their disorder.

Analysis of Nonassertive Behaviour

Here too, the scores obtained on inventory for nonassertive behaviour were statistically analyzed. The t-test results (Table 22) of both adolescents and parents were nonsignificant (0.6) and (0.4), respectively, at Pre-Post level. The t-test results (Table 23) of both adolescents and parents were again nonsignificant (0.4) and (0.3), respectively, at Post-Followup level. The t-test results, (Table 24) again showed nonsignificant results for both adolescents (0.4) and parents (0.7) at Pre-Followup level.

These scores indicated no change in the nonassertive behaviour of the control group adolescents.

Graph IX shows these results clearly signifying no change in the behaviour.

The adolescents' (Table 61) Total (1330), Mean (65.9) and S.D. (3.7) for Pre-scores; (Table 62) Total (1308), Mean (65.4) and S.D. (3.4) for Post scores; and, (Table 63) Total (1319), Mean (65.9) and S.D. (4.6) for Followup

scores, were all similar results indicating no reduction in the nonassertive behaviour of the control group adolescents.

Graph XVIII shows the mean scores indicating no reduction in nonassertive behaviour of control group (T_4) from pre to post to followup level.

The parents' (Table 66) Total (1303), Mean (65.2) and S.D. (1.4) for Pre scores; Total (1317), Mean (65.8) and S.D. (5.3) for Post scores and Total (1327), Mean (66.3) and S.D. (5.9) for Followup scores also indicate no reduction in the nonassertive behaviour of the adolescents and hence, support the adolescents' results.

Graph XXI shows the mean values of the control group (T_4) indicating no reduction in scores from pre to post to followup level.

The overall results indicated no change in the nonassertive behaviour of the control group adolescents as no treatment technique was applied on them.

The results of hypotheses nine and ten therefore indicate that since no treatment technique was applied on the control group adolescents, they showed a consistency in their results as there was no reduction in either the nonassertive overanxious disorder or nonassertive withdrawn disorder from pre to post to followup level.

As discussed in the Results Chapter the ANCOVA scores were also calculated to find the differential impact of the treatment techniques applied as the ANOVA's for Post and Followup levels were found to be significant for both the disorders.

Hypothesis Eleven

States, "There will be a differential impact of the intervention techniques on the nonassertive overanxious disorder. So the null hypothesis to be tested would be: There will be no differential impact of the intervention techniques on the nonassertive overanxious disorder".

This null hypothesis was disproved.

The ANCOVA (Table 25) calculated for nonassertive overanxious disorder at Pre-Post level for all the four treatment groups was found to be significant (28.6). The result obtained was significant as there had been a marked reduction in scores from pre to post level indicating that the techniques applied had an impact on the disorder. To find out the most effective technique, adjusted mean values were calculated.

The adjusted mean values (Table 34) of the nonassertive overanxious disorder at Pre-post level for treatment group 1 was (47.6); for treatment group 2 was (50.4); for the treatment group 3 was (51.9); and for treatment group 4 was (67.2). From the above values it can be said that treatment group 1, which

was given role-playing therapy, had the lowest score indicating its maximum effect in reducing the disorder. Whereas, group 2 which was given covert modeling and group 3 which was given the two techniques combined, had equivalent results showing equivalent effects with the former being slightly more effective in reducing the nonassertive overanxious disorder. As expected for the control group the score was highest indicating no change in the disorder behaviour as no technique was given.

The ANCOVA (Table 26) calculated for nonassertive overanxious disorder at Post-Followup level for all the four groups was found to be nonsignificant (0.7) indicating that there had been no significant improvement in behaviour from Post to Followup level but the improvement made at the post level was maintained till the followup period. The adjusted mean values were calculated to find which group had maintained the behaviour change to the maximum extent.

The adjusted mean values (Table 35) of the nonassertive overanxious disorder at Post-Followup level for treatment group 1 was (49.2); for treatment group 2 was (50.6); for treatment group 3 was (51.4); and for treatment group 4 was (55.3). The result for group 1 was the lowest indicating that the assertive behaviour learnt through role playing therapy was maintained to the maximum extent. The result of group 2 and 3 were again similar indicating that assertive

behaviour learnt through these techniques was maintained to equivalent levels. The group 4 value is highest indicating no change.

The ANCOVA (Table 27) calculated for nonassertive overanxious disorder at Pre-Followup level for all the four treatment groups was again found to be significant (13.2) indicating that the adolescents' had been successful in retaining the positive effects of the treatment given even after the time gap of four months.

The adjusted mean values (Table 36) of the nonassertive overanxious disorder at Pre-Followup level for treatment group 1 was (42.8); for treatment group 2 was (47.3); for treatment group 3 was (48.2), and for treatment group 4 was (66.8). From these values it can be said that again group 1 had the lowest score which made it most effective in increasing and maintaining the assertive behaviour learnt. Groups 2 and 3 again showed equivalent results indicating similar impacts. The control group 4 had highest score indicating no change in disorder behaviour.

Therefore, from these results it can be said that there was a difference in the impact of the intervention techniques applied on the nonassertive overanxious disorder with the role playing technique being the best technique and covert modeling and the combination of the two techniques showing similar impacts in reducing overanxious disorder.

Hypothesis Twelve

States, "There will be a differential impact of the intervention techniques on the nonassertive withdrawn disorder. So the null hypothesis to be tested would be: There will be no differential impact of the intervention techniques on nonassertive withdrawn disorder".

This null hypothesis was also disproved.

The ANCOVA (Table 28) calculated for nonassertive withdrawn disorder at Pre-Post level for all the four treatment groups was found to be highly significant (81.7). The result obtained was significant as there had been a marked reduction in the scores from Pre to Post level indicating that the techniques applied had a positive impact on the disorder. To find out the most effective technique, adjusted mean values were calculated.

The adjusted mean values (Table 37) of the nonassertive withdrawn disorder at Pre-Post level for treatment group 1 was (35.2); for treatment group 2 was (42.4); for treatment group 3 was (42.40) and for group 4 was (59.9). The results indicated that here also group 1, which was given role playing therapy, had the lowest score indicating maximum impact of the therapy given. Groups 2 and 3 of covert modeling and the two techniques combined, had equal results indicating equal impact of both the techniques. The group 4 or control group had highest score indicating no change in disorder.

The ANCOVA (Table 29) calculated for nonassertive withdrawn disorder at Post-Followup level for all the four groups was also found to be nonsignificant (2.3) indicating that there had been no significant improvement further from Post to Followup level but the improvement made at the post level was maintained till the followup period. The adjusted mean values were calculated to find which group had maintained the behaviour change to the maximum extent.

The adjusted mean values (Table 38) of the nonassertive withdrawn disorder at Post-Followup level for treatment group 1 was (37.3); for treatment group 2 was (40.1); for treatment group 3 was (42.1); and for treatment group 4 was (48.2). These results too indicated maximum maintenance of the new behaviour for group 1 as it's score was lowest. Groups 2 and 3 again had equivalent results showing equivalent effects and the control group 4 showed no change.

The ANCOVA (Table 30) calculated for nonassertive withdrawn disorder at Pre-Followup level for all the four treatment groups was again found to be significant (39.7) indicating that the adolescents had been successful in retaining the positive effects of the treatments given after the time gap of four months.

The adjusted mean values (Table 39) of the nonassertive withdrawn disorder at Pre-Followup level for treatment group 1 was (29.9); for treatment group 2 was (38.4); for treatment group 3 was (40.7), and for treatment group 4 was (59.0). The results indicate that here also group 1 had lowest score indicating maximum effect of role-playing therapy. Groups 2 and 3 had equivalent results with the former being slightly more effective. The control group 4 showed no change.

Therefore, from the above results it can be interpreted that role playing has had the maximum effect on the nonassertive withdrawn disorder and therefore, was the best technique. Covert modeling and the two techniques combined showed similar impact in reducing the withdrawn disorder.

Analysis of Nonassertive Behaviour

The differential impact of the intervention techniques was also found on the nonassertive behaviour to see which technique caused the maximum increase in the assertive behaviour which further helped in reducing the disorders.

The ANCOVA (Table 31) calculated for nonassertive behaviour at Pre-Post level for all the four treatment groups was also found to be highly significant (75.4). The result obtained was again significant as there had been a marked reduction in scores from Pre to Post level indicating that the techniques

applied had an impact on the disorder. To find out the most effective technique, adjusted mean values were calculated.

Table 40 showed the adjusted mean values of nonassertive behaviour at Pre-Post level for group 1 as (43.5); group 2 as (48.8); group 3 as (50.0); and group 4 as (66.1).

The ANCOVA (Table 32) calculated for nonassertive behaviour at Post-Followup level for all the four groups was found to be nonsignificant (4.3) indicating that there had been no significant improvement in behaviour further from post to followup level but the improvement made at the post level was maintained till the followup period. The adjusted mean values were calculated to find which group had maintained the behaviour change to the maximum extent.

Table 41 showed the adjusted mean values of nonassertive behaviour at Post-Followup level for group 1 as (44.0), group 2 as (45.7); group 3 as (47.9); and group 4 as (55.3).

The ANCOVA (Table 33) calculated for nonassertive behaviour at Pre-Followup level for all the four treatment groups was found to be highly significant (53.3) indicating that the adolescents had been successful in retaining the positive effects of the treatments given even after the time gap of four months.

Table 42 showed the adjusted mean values of nonassertive behaviour at Pre-followup for group 1 as (37.0); group 2 as (42.7); group 3 as (45.2); and group 4 as (66.5).

The above results indicated that here too group 1 had the lowest score at all the three levels indicating role-playing to be most effective in increasing the assertive behaviour and also in maintaining it over the time gap of four months. Groups 2 and 3 had equivalent results indicating that covert modeling and the two techniques combined had equal impacts on the nonassertive behaviour of adolescents. The control group 4 scores were highest indicating no change.

The results of hypotheses eleven and twelve indicate that all the three techniques applied showed their impact on the nonassertive overanxious and nonassertive withdrawn disorder but role-playing came out to be the most effective technique in reducing both the disorders.

Role-playing technique proved to be most effective as an assertive therapeutic technique in reducing both nonassertive overanxious disorder and nonassertive withdrawn disorder by making the adolescents more assertive in their behaviour.

One important observation that was made by the investigator during the training period was that the subjects in the role-play group tried to help each other by trying to help in real-life classroom situations, as they did during the training session. By this they learnt and got motivated from each other's experiences to try out the solutions on their own. This was may be one of the reasons for role-playing being the most successful therapy in making the adolescents more assertive in their behaviour and subsequently reducing the two disorders.

Covert modeling was also successful as an assertive therapeutic technique in reducing the disorders but the success rate was not as high as in the case of role-playing. This could have two reasons:

a) In role playing method the subjects were encouraged to role-play among themselves under the investigater's supervision.

b) They would practice their newly learnt behaviour in vivo which must have strengthened their newly built assertiveness.

Both these factors were missing in the covert modeling group. In addition, covert modeling requires a strong imaginative power. Since, this ability was not tested before hand, the investigator believes that some of the adolescents may not have been able to imagine the functioning of a model as efficiently as was desired inspite of the fact that the subjects belonging to covert

modeling group were given a few sessions of systematic imagination. Why covert modeling did not prove to be as effective as role playing technique could be perhaps, attributed to this reason.

The third technique, i.e. the combination of the above two techniques also showed its impact on the two disorders but this was also not as effective as role playing technique. The results of this combination of two techniques were somewhat similar to the results obtained with covert modeling. This could be because the adolescents in this group were not able to achieve satisfying results with covert modeling. Infact due to this the impact of role playing was also statistically liquidated.

The fourth group or control group, as explained earlier in the chapter, did not show any change as no treatment technique was applied on it and they were only tested retested on the inventories.

Thus, the differential impact of the treatment techniques applied was proved for both the disorders with role playing being the more effective technique for both the disorders.

Hampe et al (1973) found that Behaviour Therapy techniques have often proved to be effective in treating anxiety. This supports the above results.

The data was further analyzed to compare the experimental groups with the control group for all the three levels by finding the difference in the adjusted mean scores of experimental groups with the control group. This analysis shows the effects on the experimental groups as to which disorder had been reduced to the maximum extent.

Hypothesis Thirteen

States, "There will be a difference between each experimental group (i.e. groups 1,2 and 3) and the control group (i.e. group 4) for nonassertive overanxious disorder. So the null hypothesis to be tested would be: There will be no difference between each experimental group (i.e. group 1,2, & 3) and the control group (i.e., group 4) for nonassertive overanxious disorder".
This null hypothesis was disproved.

The mean differences (Table 43) between each of the three experimental groups and control group for the nonassertive overanxious disorder at Pre-Post level: between experimental group 1 and the control group 4 was (19.6); between experimental group 2 and the control group 4 was (15.3); and between experimental group 3 and the control group 4 was (16.8). All the values were significant at 0.01 level of significance. The results indicated that since the difference value for group 1 was the highest, it was maximally different from the control group 4. This meant there was maximum reduction

in the nonassertive overanxious disorder due to the maximum increase in the assertive behaviour for the adolescents belonging to the experimental group1. Experimental groups 2 and 3 also showed similar significant differences with the control group 4, but as compared to the group 1 the reduction was to a lesser extent.

The mean differences (Table 44) between each of the three experimental groups and the control group for the nonassertive overanxious disorder at Post-Followup level: between experimental group 1 and the control group 4 was (6.1); between experimental group 2 and the control group 4 was (4.7); and between experimental group 3 and the control group 4 was (3.9). The above values again indicated that group 1 was maximally different from control group 4 and was the only significant value indicating that the reduction in the disorder was maintained to the maximum extent in the group 1 and there was even further reduction in the disorder from post to followup level. Groups 2 and 3 showed only the maintenance of the reduction in the disorder from post to followup level as the difference values obtained for them were nonsignificant.

The mean differences (Table 45) between each of the three experimental groups of the control group for the nonassertive withdrawn disorder at Pre-Followup level: between experimental group 1 and the control group 4 was

(24.0); between experimental group 2 and the control group 4 was (18.6) and between experimental group 3 and the control group 4 was (19.5). All the difference values were significant at 0.01 level of significance.

The above results indicate that group 1 was maximally different from the control group 4 which meant that group 1 had maximum reduction in the disorder which was maintained till the followup level. Experimental groups 2 and 3 also showed the reduction and the maintenance of that reduction till followup period but it was not as high as in case of group 1.

Thus, from the above results it can be seen that experimental group 1, when compared to control group 4, has had the maximum reduction in the nonassertive overanxious disorder.

Hypothesis Fourteen

States, "There will be difference between each experimental group (i.e., groups 1, 2, and 3) and the control group (i.e., group 4) for nonassertive withdrawn disorder. So the null hypothesis to be tested would be: There will be no difference between each experimental group (i.e., groups 1, 2 and 3) and the control group (i.e. group 4) for nonassertive withdrawn disorder". This null hypothesis was also disproved.

The mean differences (Table 46) between each of the three experimental groups and the control group for the nonassertive withdrawn disorder at Pre-Post level: between experimental group 1 and the control group 4 was (24.7); between experimental group 2 and the control group 4 was (17.5); and between experimental group 3 and the control group 4 was (17.5). All the values were significant at 0.01 level of significance. The results showed the maximum reduction in the nonassertive withdrawn disorder for group 1 as its difference value was the highest when compared to the control group 4. Experimental groups 2 and 3 also showed equal significant reduction in the disorder but not as high as in case of group 1 adolescents.

The mean differences (Table 47) between each of the three experimental groups and the control group for the above disorder at Post-Followup level: between experimental group 1 and the control group 4 was (10.9); between experimental group 2 and the control group 4 was (6.1); and between experimental group 3 and the control group 4 was (8.1). The values were significant at 0.01 level of significance and again indicated that the reduction in the disorder of group 1 was maintained to the maximum extent and further reduction was also shown as the difference value was significant. Experimental groups 2 and 3 also had significant values but the further reduction was not as high as in case of group 1.

The mean differences (Table 48) between each of the three experimental groups and the control group for this disorder at Pre-Followup level: between experimental group 1 and the control group 4 was (29.1); between experimental group 2 and the control group 4 was (18.3) and between experimental group 3 and the control group 4 was (20.6). The above values were significant and again indicated that group 1 showed maximum reduction in the disorder and could maintain the reduction to the maximum extent as the difference value was the highest. The values for experimental groups 2 & 3 also showed reduction in the disorder and maintenance of that eduction but again the reduction was not as high as in case of group 1.

Thus, again it can be seen from above results that experimental group 1 when compared to the control group 4 had maximum reduction in the nonassertive withdrawn disorder.

Analysis of Nonassertive Behaviour

Mean differences of the three experimental groups with the control group were also found for the nonassertive behaviour.

Table 49 shows the differences of nonassertive behaviour at Pre-Post level for experimental group 1 and control group 4 as (22.6); experimental group 2 and control group 4 as (16.1) and experimental group 3 and control group 4 as (17.3).

Table 50 shows the differences of nonassertive behaviour at Post-Followp level for experimental group 1 and control group 4 as (11.3); experimental group 2 and control group 4 as (9.6) and experimental group 3 and control group 4 as (7.4).

Table 51 showed the mean difference of nonassertive behaviour at Pre-Followup level for experimental group 1 and control group 4 as (29.5); experimental group 2 and control group 4 as (23.8) and experimental group 3 and control group 4 as (21.3).

The above results again indicate that experimental group 1 was maximally different from control group 4 at all the three levels. Therefore, group 1 showed maximum reduction in nonassertive behaviour. Groups 2 and 3 showed equivalent amount of reduction in the nonassertive behaviour when compared to the control group 4.

The results of hypotheses thirteen and fourteen therefore indicate that when compared to the control group (group 4), all the experimental groups (groups 1, 2 & 3) showed significant differences. Groups 2 & 3 had similar results for both the nonassertive overanxious and nonassertive withdrawn disorders indicating that these two experimental groups of both the disorders showed similar amounts of reduction in the two disorders with the nonassertive

withdrawn disorder showing a greater reduction. But the maximum amount of reduction in the two disorders was shown by group 1 adolescents, more so with the nonassertive withdrawn disorder.

Withdrawn disorder showed a greater amount of reduction, may be because it is primarily a social disorder, and in it the interactional processes are deficient. Therefore, when the adolescents were given assertive training they also developed the interactional efficiencies which perhaps is the reason for more significant gain by this particular group in the present study. Overanxiety, on the otherhand, is relatively less of a social problem and therefore, the above mentioned benefits were assimilated to a lesser degree.

Hypothesis Fifteen

States, "There will be a difference between nonassertive overanxious girls and nonassertive overanxious boys for the impact of the intervention techniques applied. So the null hypothesis to be tested would be: There will be no difference between the nonassertive overanxious girls and nonassertive overanxious boys for the impact of the intervention techniques applied".
This null hypothesis was proved.

The t-test result (Table 52) between girls and boys for nonassertive overanxious disorder at Pre-level was shown as (0.8) which was a nonsignificant value indicating there was no significant difference between the girls' and the boys' scores at Pre-level.

The t-test result (Table 52) between girls and boys for nonassertive overanxious disorder at Post level was shown as (0.4) which was again a nonsignificant value indicating there was no significant difference between the girls' and the boys' scores at Post level.

The t-test results (Table 52) between girls and boys for nonassertive overanxious disorder at Followup level was shown as (1.1) which is also a nonsignificant value indicating there was no difference in the girls' and the boys' scores at Followup level as well.

Graph XIII shows the above results clearly.

The above results were further supported by the Totals, Means and Standard Deviations (S.D.) scores.

The girls' Totals, Means and S.D's for nonassertive overanxious disorder (Table 69) for: Pre-scores were: Total (1351), Mean (67.5) and S.D. (6.3); Post-Scores were: Total (1098), Mean (54.9) and S.D. (9.9); and, Followup-Scores were: Total (1058), Mean (52.9) and S.D. (16.9). The boys' Totals, Means and S.D's for nonassertive overanxious disorder (Table 70) for: Pre-scores were: Total (1384), Mean (69.2) and S.D. (5.9); Post-scores were: Total (1073), Mean (53.6) and S.D. (9.7); and, Followup scores were Total (976), Mean (48.8) and S.D. (11.8).

These results also indicate that the scores between girls and boys were similar therefore, there were no significant differences between them.

Graph XXIV shows the mean score values of the girls' and the boys' raw scores indicating no significant difference between them.

Hypothesis Sixteen

States, "There will be a difference between nonassertive withdrawn girls and nonassertive withdrawn boys for the impact of the intervention techniques applied. So the null hypothesis to be tested would be: There will be no difference between the nonassertive withdrawn girls and nonassertive withdrawn boys for the impact of the intervention techniques applied".
This null hypothesis was also proved.

The t-test results (Table 53) between girls and boys for nonassertive withdrawn disorder at Pre level was shown as (1.5) which was a nonsignificant value indicating no significant difference between the girls' and the boys' scores at Pre-level.

The t-test result (Table 53) between girls and boys for this disorder at Post level was shown as (0.7) which was also a nonsignificant value indicating no significant difference between the girls' and the boys' scores at Post level.

The t-test result (Table 53) between girls and boys for the same disorder at Followup level was shown as (1.0) which was again a nonsignificant value indicating no difference in the girls' and the boys' scores at Followup level.

Graph XIV shows the above results very clearly. The above results were further supported by the Totals, Means and Standard Deviations (S.D.) scores.

The girls' Totals, Means and S.D.'s for nonassertive withdrawn disorder (Table (69) for: Pre scores were: Total (1176), Mean (58.3) and S.D. (3.7); Post-scors were: Total (913), Mean (45.1) and S.D. (9.8); and, Followup scores were: Total (873), Mean (43.6) and S.D. (13.1).

The boys' Totals, Means and S.D.'s for nonassertive withdrawn disorder (Table 70) for: Pre-scores were: Total (1130), Mean (56.5) and S.D. (4.1); Post scores were: Total (867), Mean (43.3) and S.D. (9.0); and, Followup-scores were: Total (785), Mean (39.2) and S.D. (14.2).

These results also showed that the scores between girls and boys were similar therefore, there were no significant differences between them.

Graph XXV shows the mean score values of girls' and boys' raw scores indicating no significant difference between them.

Analysis of Nonassertive Behaviour

The difference between girls' and boys' scores were also calculated for nonassertive behaviour.

Table 54 shows the t-result between girls and boys for Pre-scores as (0.05); between girls and boys for post-scores as (0.5); and between girls and boys for followup scores as (0.5).

These results indicated that there were no significant differences between the girls' the and boys' scores at all the three levels.

Graph XV shows the above results very clearly.

These results were further supported by the Totals, Means and S.D.'s of the raw scores of these girls and boys. Table 69 showed the Totals, Means and S.D.'s for nonassertive behaviour of girls at Pre-level as Total (2680), Mean (67.0) and S.D. (3.4); at Post level as Total (2132), Mean (53.3) and S.D. (8.8), and at Followup-level as Total (1966), Mean (49.2) and S.D. (13.6). Table 70 showed the Totals, Means and S.D's for nonassertive behaviour of boys at Pre level as Total (2682), Mean (67.0) and S.D. (2.2); at Post-level as Total (2044), Mean (51.1) and S.D. (10.7); and Followup level as Total (1876), mean (46.9) and S.D. (13.0).

Graph XXVI shows the mean score values of the girls' and the boys' raw scores indicating no significant difference between them.

These results indicated that there were no differences between the scores of nonassertive girls and nonassertive boys as they gave similar results.

The results of hypotheses fifteen and sixteen indicate that the scores of the girls and the boys were guite similar on both nonassertive overanxious disorder and nonassertive withdrawn disorder. It can be thereby easily said that all the intervention techniques applied benefitted both girls and boys equally in reducing their disorders and increasing their assertive behaviours.

Maccoby and Jacklin (1976) have reported no differences between male and female children when given the appropriate social skills training for enhancing assertive social skills. This supports the above results.