

**CHAPTER FIVE**

**RESULTS**

5.1.0.

INTRODUCTION

This chapter of the thesis deals with the results obtained in the present study. It shows how the intervention strategies employed resulted in a reduction of the behaviour disorders under investigation.

This chapter, therefore, shows the results in tabulated and graphic forms.

TABLE I : CORRELATION BETWEEN QUESTIONNAIRE RATINGS OF TEACHERS AND PARENTS ON BOTH BEHAVIOUR DISORDERS.

|         | AGGRESSION | HYPERACTIVITY |
|---------|------------|---------------|
| PRE     | 0.17       | 0.13          |
| POST    | 0.22       | 0.19          |
| DELAYED | 0.56       | 0.55          |

TABLE II : CORRELATION BETWEEN BASELINE RATINGS OF TEACHERS AND PARENTS ON BOTH BEHAVIOUR DISORDERS.

|         | AGGRESSION | HYPERACTIVITY |
|---------|------------|---------------|
| PRE     | 0.48       | 0.75          |
| POST    | 0.59       | 0.67          |
| DELAYED | 0.75       | 0.81          |

The above two tables show a positive correlation between the ratings of teachers and parents on both questionnaire and baseline ratings. The highest correlation on both is on the delayed condition.

TABLE III : COMBINED TEACHER - PARENT RATINGS SHOWING F SCORES ON

ANCOVA, FOR AGGRESSION, ON THE PRE-POST CONDITION.

|     | d  | SSx     | SSy     | SSy.x  | MSy.x |
|-----|----|---------|---------|--------|-------|
| SSB | 4  | 57.19   | 59.9    | 187.37 | 46.84 |
| SSW | 47 | 3846.68 | 1567.43 | 579.78 | 12.34 |

F = 3.8\*\*

TABLE IV : COMBINED TEACHER - PARENT RATINGS SHOWING F SCORES ON

ANCOVA, FOR AGGRESSION, ON THE PRE-DELAYED CONDITION.

|     | df | SSx     | SSy     | SSy.x  | MSy.x |
|-----|----|---------|---------|--------|-------|
| SSB | 4  | 57.19   | 336.38  | 373.67 | 93.42 |
| SSW | 47 | 3846.68 | 1295.49 | 964.31 | 20.52 |

F = 4.55\*\*

TABLE V : COMBINED TEACHER - PARENT RATINGS SHOWING F SCORES ON

ANCOVA, FOR AGGRESSION, ON THE POST-DELAYED CONDITION.

|     | df | SSx     | SSy     | SSy.x  | MSy.x |
|-----|----|---------|---------|--------|-------|
| SSB | 4  | 59.9    | 336.38  | 251.13 | 62.78 |
| SSW | 47 | 1567.43 | 1295.49 | 660.74 | 14.06 |

F = 4.47\*\*

\* significant at 0.05 level of significance.

\*\* significant at 0.01 level of significance.

The above three tables give ANCOVA analyses showing F scores, of combined teacher-parent ratings, on aggression. All the values of F are significant, thus indicating an impact across all three intervention conditions.

TABLE VI : COMBINED TEACHER - PARENT RATINGS SHOWING F SCORES ON ANCOVA, FOR HYPERACTIVITY, ON THE PRE-POST CONDITION.

|     | df | SSx     | SSy     | SSy.x  | MSy.x |
|-----|----|---------|---------|--------|-------|
| SSB | 4  | 109.84  | 219.84  | 191.27 | 47.82 |
| SSW | 51 | 3870.55 | 2257.28 | 103.00 | 2.02  |

F = 23.67\*\*

TABLE VII: COMBINED TEACHER - PARENT RATINGS SHOWING F SCORES ON ANCOVA, FOR HYPERACTIVITY, ON THE PRE-DELAYED CONDITION.

|     | df | SSx     | SSy     | SSy.x   | MSy.x  |
|-----|----|---------|---------|---------|--------|
| SSB | 4  | 109.84  | 1120.70 | 1055.53 | 263.88 |
| SSW | 51 | 3870.55 | 2137.85 | 36.48   | 0.72   |

F = 366.5\*\*

TABLE VIII : COMBINED TEACHER - PARENT RATINGS SHOWING F SCORES ON ANCOVA, FOR HYPERACTIVITY, ON THE POST-DELAYED CONDITION.

|     | df | SSx     | SSy     | SSy.x   | MSy.x  |
|-----|----|---------|---------|---------|--------|
| SSB | 4  | 219.84  | 1120.70 | 545.26  | 136.32 |
| SSW | 51 | 2257.28 | 2137.85 | 1074.00 | 21.06  |

F = 6.49\*\*

\* significant at 0.05 level of significance.

\*\* significant at 0.01 level of significance.

The three tables given above show the ANCOVA analyses, with F scores, of the combined ratings of teacher and parents, on hyperactivity. As can be seen from the result, all values of F are significant.

TABLE IX : TEACHER RESULTS, SHOWING F SCORES ON ANCOVA, FOR

AGGRESSION, ON THE PRE-POST CONDITION.

|     | df | SSx     | SSy    | SSy.x  | MSy.x |
|-----|----|---------|--------|--------|-------|
| SSB | 4  | 25.86   | 17.99  | 246.47 | 61.62 |
| SSW | 47 | 2264.03 | 726.46 | 263.21 | 5.6   |

F = 11.00\*\*

TABLE X : TEACHER RESULTS, SHOWING F SCORES OF ANCOVA, FOR

AGGRESSION, ON THE PRE-DELAYED CONDITION.

|     | df | SSx     | SSy    | SSy.x  | MSy.x |
|-----|----|---------|--------|--------|-------|
| SSB | 4  | 25.86   | 27.98  | 122.79 | 30.7  |
| SSW | 47 | 2264.03 | 575.30 | 436.63 | 9.29  |

F = 3.3\*

TABLE XI : TEACHER RESULTS, SHOWING F SCORES ON ANCOVA, FOR

AGGRESSION, ON THE POST-DELAYED CONDITION.

|     | df | SSx    | SSy    | SSy.x  | MSy.x |
|-----|----|--------|--------|--------|-------|
| SSB | 4  | 17.99  | 27.98  | 40.64  | 10.16 |
| SSW | 47 | 726.46 | 575.30 | 268.64 | 5.72  |

F = 1.78

\* significant at 0.05 level of significance.

\*\* significant at 0.01 level of significance.

The above three tables give ANCOVA results, showing F scores, of teacher ratings on aggression. The F values on the pre-post and pre-delayed conditions are significant, while the post-delayed result is not.

TABLE XII : PARENT RESULTS, SHOWING F SCORES OF ANCOVA, FOR  
 AGGRESSION, ON THE PRE-POST CONDITION.

|     | df | SSx     | SSy    | SSy.x  | MSy.x |
|-----|----|---------|--------|--------|-------|
| SSB | 4  | 48.13   | 62.33  | 48.26  | 12.07 |
| SSW | 47 | 1089.34 | 459.56 | 190.06 | 4.04  |

F = 2.99\*\*

TABLE XIII: PARENT RESULTS, SHOWING F SCORES OF ANCOVA, FOR  
 AGGRESSION, ON THE PRE-DELAYED CONDITION.

|     | df | SSx     | SSy    | SSy.x  | MSy.x |
|-----|----|---------|--------|--------|-------|
| SSB | 4  | 48.13   | 220.75 | 207.81 | 51.95 |
| SSW | 47 | 1089.34 | 584.00 | 532.11 | 11.32 |

F = 4.59\*\*

TABLE XIV : PARENT RESULTS, SHOWING F SCORES ON ANCOVA, FOR  
 AGGRESSION, ON THE POST-DELAYED CONDITION.

|     | df | SSx    | SSy    | SSy.x  | MSy.x |
|-----|----|--------|--------|--------|-------|
| SSB | 4  | 62.33  | 220.75 | 124.33 | 31.08 |
| SSW | 47 | 459.56 | 584.00 | 446.92 | 9.51  |

F = 3.27\*\*

\* significant at 0.05 level of significance.

\*\* significant at 0.01 level of significance.

The above three tables give ANCOVA, results, showing F scores, of parent ratings on aggression. As can be seen, all values of F are significant.

TABLE XV : TEACHERS RESULTS, SHOWING F SCORES ON ANCOVA, FOR

HYPERACTIVITY, ON THE PRE-POST CONDITION.

|     | df | SSx    | SSy    | SSy.x  | MSy.x |
|-----|----|--------|--------|--------|-------|
| SSB | 4  | 406.63 | 337.7  | 191.67 | 47.92 |
| SSW | 51 | 644.25 | 404.55 | 401.81 | 7.88  |

F = 6.08\*\*

TABLE XVI : TEACHER RESULTS, SHOWING F SCORES OF ANCOVA, FOR

HYPERACTIVITY, ON THE PRE-DELAYED CONDITION.

|     | df | SSx    | SSy    | SSy.x  | MSy.x |
|-----|----|--------|--------|--------|-------|
| SSB | 4  | 406.63 | 120.76 | 197.97 | 49.49 |
| SSW | 51 | 644.25 | 544.12 | 416.35 | 8.16  |

F = 6.06\*\*

TABLE XVII : TEACHER RESULTS, SHOWING F SCORES ON ANCOVA, FOR

HYPERACTIVITY, ON THE POST-DELAYED CONDITION.

|     | df | SSx    | SSy    | SSy.x  | MSy.x |
|-----|----|--------|--------|--------|-------|
| SSB | 4  | 16.21  | 120.76 | 125.24 | 31.31 |
| SSW | 51 | 726.04 | 544.12 | 424.82 | 8.33  |

F = 3.79\*\*

\* significant at 0.05 level of significance.

\*\* significant at 0.01 level of significance.

The three tables shown above give ANCOVA results showing F scores for the teacher ratings on hyperactivity. It can be seen that the values of F are significant across all the three intervention phases.

TABLE XVIII : PARENT RESULTS, SHOWING F SCORES OF ANCOVA, FOR  
HYPERACTIVITY, ON THE PRE-POST CONDITION.

|     | df | SSx     | SSy    | SSy.x  | MSy.x |
|-----|----|---------|--------|--------|-------|
| SSB | 4  | 56.1    | 181.02 | 132.39 | 33.1  |
| SSW | 51 | 1281.83 | 1145.3 | 587.67 | 11.52 |

F = 2.87\*

TABLE XIX : PARENT RESULTS, SHOWING F SCORES OF ANCOVA, FOR  
HYPERACTIVITY, ON THE PRE-DELAYED CONDITION.

|     | df | SSx     | SSy    | SSy.x  | MSy.x |
|-----|----|---------|--------|--------|-------|
| SSB | 4  | 56.1    | 470.59 | 354.79 | 88.7  |
| SSW | 51 | 1281.83 | 985.3  | 499.93 | 9.8   |

F = 9.05\*\*

TABLE XX : PARENT RESULTS, SHOWING F SCORES ON ANCOVA, FOR  
AGGRESSION, ON THE POST-DELAYED CONDITION.

|     | df | SSx    | SSy    | SSy.x  | MSy.x |
|-----|----|--------|--------|--------|-------|
| SSB | 4  | 181.02 | 470.59 | 132.6  | 33.15 |
| SSW | 51 | 1145.3 | 985.3  | 342.71 | 6.72  |

F = 4.93\*\*

\* significant at 0.05 level of significance.

\*\* significant at 0.01 level of significance.

The above tables give the ANCOVA results, showing  $F$  scores, for the parent ratings of hyperactivity. It can be seen that all values of  $F$  are significant thus showing an impact across all the three intervention phases.

TABLE XXI: TOTAL, MEAN AND STANDARD DEVIATION OF EACH DISORDER,  
TREATMENT-WISE.

|    | AGGRESSION |        |        | HYPERACTIVITY |        |       |
|----|------------|--------|--------|---------------|--------|-------|
|    | E          | X      | SD     | E             | X      | SD    |
| T1 | 1202       | 400.67 | 101.26 | 1241          | 413.67 | 95.56 |
| T2 | 1309       | 436.33 | 16.74  | 1130          | 376.67 | 50.33 |
| T3 | 1291       | 430.33 | 87.55  | 1286          | 428.67 | 40.8  |
| T4 | 1212       | 404.00 | 66.71  | 1150          | 383.33 | 39.09 |
| T5 | 1510       | 503.33 | 64.46  | 1331          | 443.67 | 80.55 |

TABLE XXII: TOTAL, MEAN AND STANDARD DEVIATION OF EACH DISORDER,

CATEGORY-WISE, ACCORDING TO THE FIVE TREATMENT GROUPS.

|                    |           | T1     | T2     | T3     | T4     | T5     |
|--------------------|-----------|--------|--------|--------|--------|--------|
| LOW                | E         | 310    | 416    | 315    | 310    | 420    |
| AGGRES-<br>SION    | $\bar{X}$ | 103.33 | 138.67 | 105    | 103.33 | 140    |
|                    | SD        | 2.87   | 4.11   | 3.56   | 3.3    | 3.74   |
|                    | MEDIUM    | E      | 350    | 457    | 449    | 458    |
| AGGRES-<br>SION    | $\bar{X}$ | 116.67 | 152.33 | 149.67 | 152.67 | 171    |
|                    | SD        | 12.76  | 13.82  | 11.73  | 12.68  | 4.32   |
|                    | HIGH      | E      | 542    | 436    | 527    | 444    |
| AGGRES-<br>SION    | $\bar{X}$ | 180.67 | 145.33 | 175.67 | 148    | 192.33 |
|                    | SD        | 30.92  | 15.86  | 29.95  | 22.63  | 16.05  |
|                    | LOW       | E      | 295    | 363    | 374    | 368    |
| HYPER-<br>ACTIVITY | $\bar{X}$ | 98.33  | 121    | 124.67 | 122.67 | 140    |
|                    | SD        | 2.49   | 4.97   | 6.13   | 6.02   | 4.9    |
|                    | MEDIUM    | E      | 417    | 444    | 440    | 437    |
| HYPER-<br>ACTIVITY | $\bar{X}$ | 139    | 148    | 146.67 | 145.67 | 119.67 |
|                    | SD        | 16.27  | 19.61  | 14.01  | 16.36  | 2.62   |
|                    | HIGH      | E      | 529    | 323    | 472    | 345    |
| HYPER-<br>ACTIVITY | $\bar{X}$ | 176.33 | 107.67 | 157.33 | 115    | 184    |
|                    | SD        | 14.97  | 19.36  | 24.39  | 20.83  | 11.22  |

TABLE XXIII : ANOVA RESULTS, ACCORDING TO TREATMENT STRATEGIES,  
FOR AGGRESSION.

| TREATMENT<br>GROUPS   | AGGRESSION |         |
|-----------------------|------------|---------|
|                       | TEACHERS   | PARENTS |
| I<br>(YOGA)           | 9.89**     | 3.21**  |
| II<br>(REINFORCEMENT) | 5.73**     | 10.32** |
| III<br>(TIME-OUT)     | 1.13       | 1.61    |
| IV<br>(ALL THREE)     | 3.38**     | 6.77**  |
| V<br>(CONTROL GROUP)  | 1.36       | 0.52    |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above table shows T1, T2 and T4 treatment groups having benefited significantly. T3 and the control group have not significantly reduced in the behaviour disorders.

TABLE XXIV : ANOVA SCORES OF HYPERACTIVITY, CATEGORIZED  
 ACCORDING TO TREATMENT STRATEGIES.

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TREATMENT                                HYPERACTIVITY
-----
GROUPS                                  TEACHERS          PARENTS
-----
  I                                     6.26**            4.12**
(YOGA)

  II                                    4.69**            9.68**
(REINFORCEMENT)

  III                                   1.89              1.7
(TIME-OUT)

  IV                                    5.56**            10.91**
(ALL THREE)

  V                                     0.63              0.02
(CONTROL GROUP)
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\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

As the tabulated results of the above table show, T1, T2 and T4 treatment groups have benefited significantly. T3 and the control group, on which no intervention was used, have not significantly reduced in their behavioural disorders.

TABLE XXV : T-TEST RESULTS, OF EACH DISORDER, TREATMENT-WISE.

|      | AGGRESSION | HYPERACTIVITY |
|------|------------|---------------|
| T1T2 | 2.70*      | 2.67*         |
| T1T3 | 1.08       | 0.7           |
| T1T4 | 0.13       | 1.44          |
| T1T5 | 4.18**     | 1.17          |
| T2T3 | 2.34*      | 1.92          |
| T2T4 | 2.31*      | 0.51          |
| T2T5 | 5.00**     | 3.46**        |
| T3T4 | 2.27*      | 3.92**        |
| T3T5 | 3.29**     | 0.81          |
| T4T5 | 5.24**     | 3.31**        |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

From the above table it can be seen that for Aggression, differences between T1T2, T1T5, T2T3, T2T4, T2T5, T3T5 and T4T5 are significant; whereas for Hyperactivity, differences between T1T2, T2T5, T3T4 and T4T5 are significant.

TABLE XXVI : T-TEST RESULTS, COMPARING EACH TREATMENT, CATEGORY-  
WISE.

|       | LA      | MA      | HA    | LH      | MH    | HH    |
|-------|---------|---------|-------|---------|-------|-------|
| T1 T2 | 9.93*   | 3.03    | 3.43* | 5.75*   | 3.5 * | 3.95* |
| T1 T3 | 0.51    | 3.31*   | 0.17  | 5.61*   | 0.50  | 0.94  |
| T1 T4 | 0.00    | 3.23*   | 1.2   | 5.72*   | 0.40  | 3.37* |
| T1 T5 | 10.97** | 21.35** | 0.05  | 10.68** | 4.65* | 0.57  |
| T2 T3 | 8.72**  | 0.21    | 3.26* | 0.67    | 0.07  | 2.24  |
| T2 T4 | 9.46**  | 0.02    | 0.13  | 0.31    | 0.13  | 0.37  |
| T2 T5 | 0.34    | 1.82    | 3.94* | 3.84*   | 3.61* | 4.01* |
| T3 T4 | 0.49    | 0.24    | 4.04* | 0.33    | 3.66* | 1.85  |
| T3 T5 | 9.55**  | 2.4     | 0.70  | 2.76    | 2.67  | 1.40  |
| T4 T5 | 10.36** | 3.33*   | 3.26* | 3.15    | 4.21* | 4.11* |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above table shows the comparison between each intervention strategy, according to the three categories of the behaviour disorder.

For the Low Aggression group, differences between T1T2, T1T5, T2T3, T2T4, T3T5 and T4T5 are significant.

For the Medium Aggression group, differences between T1T4, T1T5 and T4T5 are significant.

For the High Aggression group, differences between T1T2, T2T3, T2T5 and T3T4 are significant.

For the Low Hyperactivity group, differences between T1T2, T1T3, T1T4, T1T5 and T2T5 are significant.

For the Medium Hyperactivity group, differences between T1T2, T1T5, T2T5, T3T5 and T4T5 are significant.

For the High Hyperactivity group, differences between T1T2, T1T4, T2T5 and T4T5 are significant.

TABLE XXVII: TOTAL, MEAN AND STANDARD DEVIATION COMPARING THE EXPERIMENTAL AND CONTROL GROUPS.

|                     | AGGRESSION |           |       | HYPERACTIVITY |           |       |
|---------------------|------------|-----------|-------|---------------|-----------|-------|
|                     | E          | $\bar{X}$ | SD    | E             | $\bar{X}$ | SD    |
| EXPERIMENTAL GROUPS | 5014       | 1253.5    | 47.07 | 4807          | 1201.75   | 64.16 |
| CONTROL GROUP       | 1510       | 503.33    | 64.46 | 1331          | 443.67    | 80.55 |

TABLE XXVIII: T-TEST RESULTS OF THE EXPERIMENTAL AND CONTROL GROUPS.

| AGGRESSION | HYPERACTIVITY |
|------------|---------------|
| 12.35**    | 9.15**        |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above tables show the comparative results of the experimental and control groups, with Table XXVIII showing a significant t-test result for both disorders.

TABLE XXIX : TOTAL, MEAN AND STANDARD DEVIATION OF AGGRESSION, PHASE-WISE, WITH SEPARATE TEACHER-PARENT RESULTS.

| AGGRESSION |          |       |       |         |       |       |
|------------|----------|-------|-------|---------|-------|-------|
|            | TEACHERS |       |       | PARENTS |       |       |
|            | I        | II    | III   | I       | II    | III   |
| E          | 2430     | 2113  | 2031  | 2404    | 2121  | 2087  |
| $\bar{X}$  | 22.09    | 19.21 | 18.46 | 21.85   | 19.28 | 18.97 |
| SD         | 5.55     | 3.43  | 2.98  | 4.33    | 3.00  | 3.95  |

TABLE XXX : TOTAL, MEAN AND STANDARD DEVIATION OF HYPERACTIVITY, PHASE-WISE, WITH SEPARATE TEACHER-PARENT RESULTS.

| HYPERACTIVITY |          |       |       |         |       |       |
|---------------|----------|-------|-------|---------|-------|-------|
|               | TEACHERS |       |       | PARENTS |       |       |
|               | I        | II    | III   | I       | II    | III   |
| E             | 2267     | 1939  | 1878  | 2185    | 1963  | 1838  |
| $\bar{X}$     | 20.61    | 17.63 | 17.07 | 19.86   | 17.85 | 16.71 |
| SD            | 5.18     | 3.82  | 3.56  | 4.64    | 4.62  | 4.42  |

TABLE XXXI : T-TEST SCORES, OF THE TOTAL SAMPLE.

|              | AGGRESSION |         | HYPERACTIVITY |         |
|--------------|------------|---------|---------------|---------|
|              | TEACHERS   | PARENTS | TEACHERS      | PARENTS |
| PRE-POST     | 3.39*      | 10.28** | 7.84**        | 5.29**  |
| PRE-DELAYED  | 8.85**     | 7.78**  | 8.84**        | 9.00**  |
| POST-DELAYED | 2.78*      | 0.78    | 2.00          | 4.22**  |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above table gives the t-test results of the total sample of children (N=110) for both the behaviour disorders, across the three intervention phases. It can be seen from the table that except for the parent ratings on aggression across the post-delayed condition all the other results are significant.

TABLE XXXII: TOTAL, MEAN AND STANDARD DEVIATION ACROSS THE THREE INTERVENTION PHASES, FOR THE DISORDERS, CATEGORY-WISE.

|    | PRE INTERVENTION |       |      | POST INTERVENTION |       |      | DELAYED INTERVENTION |       |      |
|----|------------------|-------|------|-------------------|-------|------|----------------------|-------|------|
|    | E                | X     | SD   | E                 | X     | SD   | E                    | X     | SD   |
| LA | 613              | 18.03 | 1.42 | 576               | 16.94 | 0.73 | 582                  | 17.12 | 1.05 |
| MA | 768              | 21.33 | 3.7  | 695               | 19.31 | 2.73 | 658                  | 18.28 | 3.18 |
| HA | 997              | 27.69 | 5.67 | 794               | 22.06 | 3.81 | 747                  | 20.75 | 4.61 |
| LH | 621              | 16.34 | 1.87 | 592               | 15.58 | 2.47 | 605                  | 15.92 | 2.8  |
| MH | 816              | 20.4  | 3.02 | 725               | 18.13 | 4.14 | 667                  | 16.68 | 2.71 |
| HH | 857              | 23.81 | 4.97 | 716               | 19.89 | 5.23 | 683                  | 18.97 | 6.18 |

TABLE XXXIII: T-TEST RESULTS, COMPARING EACH CATEGORY ACROSS THE INTERVENTION PHASES.

|    | PRE-POST | PRE-DELAYED | POST-DELAYED |
|----|----------|-------------|--------------|
| LA | 0.68     | 0.25        | 0.11         |
| MA | 1.48     | 1.53        | 0.49         |
| HA | 2.93*    | 2.42*       | 0.96         |
| LH | 0.71     | 0.30        | 0.32         |
| MH | 2.56**   | 2.47**      | 1.68*        |
| HH | 1.48     | 1.37        | 0.18         |

\* significant at the 0.05 level of significance

\*\* significant at the 0.01 level of significance

It can be seen from Table XXXIII that only the high aggression group shows a significant change across the pre-post and pre-delayed conditions; while only the medium hyperactivity group shows significant differences across all the three intervention conditions.

TABLE XXXIV: TOTAL, MEAN AND STANDARD DEVIATION, TREATMENT-GROUP-WISE, ACROSS THE THREE PHASES, FOR AGGRESSION, OF COMBINED TEACHER PARENT RATINGS.

| INTER-VENTION GROUPS | PRE INTERVENTION |           |      | POST INTERVENTION |           |      | DELAYED INTERVENTION |           |      |
|----------------------|------------------|-----------|------|-------------------|-----------|------|----------------------|-----------|------|
|                      | E                | $\bar{X}$ | SD   | E                 | $\bar{X}$ | SD   | E                    | $\bar{X}$ | SD   |
| T1                   | 461              | 23.05     | 3.95 | 395               | 19.83     | 3.14 | 350                  | 17.50     | 1.80 |
| T2                   | 477              | 21.68     | 4.99 | 432               | 19.64     | 4.18 | 404                  | 18.36     | 2.42 |
| T3                   | 454              | 22.7      | 6.19 | 375               | 18.75     | 2.93 | 354                  | 17.70     | 1.62 |
| T4                   | 458              | 22.90     | 6.26 | 381               | 19.05     | 2.91 | 383                  | 19.15     | 5.44 |
| T5                   | 528              | 22.00     | 5.20 | 482               | 20.08     | 3.65 | 500                  | 20.83     | 4.08 |

TABLE XXXV: TOTAL, MEAN AND STANDARD DEVIATION, TREATMENT-GROUP-WISE, ACROSS THE THREE PHASES, FOR HYPERACTIVITY, OF COMBINED TEACHER PARENT RATINGS.

| INTER-VENTION GROUPS | PRE INTERVENTION |           |      | POST INTERVENTION |           |      | DELAYED INTERVENTION |           |      |
|----------------------|------------------|-----------|------|-------------------|-----------|------|----------------------|-----------|------|
|                      | E                | $\bar{X}$ | SD   | E                 | $\bar{X}$ | SD   | E                    | $\bar{X}$ | SD   |
| T1                   | 458              | 20.82     | 5.32 | 399               | 18.14     | 4.53 | 389                  | 17.68     | 4.66 |
| T2                   | 432              | 19.64     | 3.75 | 386               | 17.55     | 3.85 | 327                  | 14.68     | 1.49 |
| T3                   | 487              | 20.29     | 4.69 | 407               | 16.96     | 3.56 | 394                  | 16.42     | 2.36 |
| T4                   | 440              | 20.00     | 4.07 | 369               | 16.77     | 3.50 | 341                  | 15.50     | 1.88 |
| T5                   | 472              | 19.67     | 4.78 | 461               | 19.21     | 5.12 | 500                  | 20.83     | 6.04 |

TABLE XXXVI: T-TEST RESULTS, FOR AGGRESSION, TREATMENT-WISE, OF  
 COMBINED TEACHER PARENT RATINGS.

|    | PRE-POST | PRE-DELAYED | POST-DELAYED |
|----|----------|-------------|--------------|
| T1 | 2.6 **   | 2.44**      | 0.53         |
| T2 | 1.99*    | 3.21**      | 0.81         |
| T3 | 1.03     | 1.02        | 0.29         |
| T4 | 3.03**   | 2.11**      | 0.40         |
| T5 | 1.48     | 0.70        | 0.08         |

\* significant at the 0.05 level of significance

\*\* significant at the 0.01 level of significance

TABLE XXXVII: T-TEST RESULTS, FOR HYPERACTIVITY, TREATMENT-WISE,  
 OF COMBINED TEACHER PARENT RATINGS.

|    | PRE-POST | PRE-DELAYED | POST-DELAYED |
|----|----------|-------------|--------------|
| T1 | 2.50**   | 2.08**      | 1.01         |
| T2 | 2.46*    | 1.98*       | 0.93         |
| T3 | 1.69     | 1.60        | 0.99         |
| T4 | 2.72**   | 2.07**      | 0.80         |
| T5 | 0.67     | 0.19        | 0.40         |

\* significant at the 0.05 level of significance

\*\* significant at the 0.01 level of significance

The above two tables show the comparison of intervention strategies across the three treatment phases for aggression and hyperactivity. The t-test results of Table XII show that T1 (yoga), T2 (reinforcement) and T4 (the therapeutic package) have had a significant impact across the pre-post and pre-delayed conditions while T3 (time-out) and T5 (control group) do not show a significant impact across any condition.

The t-test results of Table XIII show a similar trend. T1 (yoga), T2 (reinforcement) and T4 (the therapeutic package) show significant differences across the pre-post and pre-delayed conditions, while T3 (time-out) and T5 (control group) do not show any significant differences.

TABLE XXXVIII: TOTAL, MEAN AND STANDARD DEVIATION OF AGGRESSION, CATEGORY-WISE, WITH SEPARATE TEACHER-PARENT RESULTS.

| AGGRESSION |          |        |        |         |        |        |
|------------|----------|--------|--------|---------|--------|--------|
|            | TEACHERS |        |        | PARENTS |        |        |
|            | LA       | MA     | HA     | LA      | MA     | HA     |
| E          | 886      | 1012   | 1340   | 885     | 1109   | 1198   |
| $\bar{X}$  | 295.33   | 337.33 | 446.67 | 295     | 369.67 | 399.33 |
| SD         | 2.62     | 19.70  | 67.28  | 13.59   | 26.03  | 41.23  |

TABLE XXXIX : TOTAL, MEAN AND STANDARD DEVIATION OF HYPERACTIVITY, CATEGORY-WISE, WITH SEPARATE TEACHER-PARENT RESULTS.

| HYPERACTIVITY |          |       |       |         |       |        |
|---------------|----------|-------|-------|---------|-------|--------|
|               | TEACHERS |       |       | PARENTS |       |        |
|               | LH       | MH    | HH    | LH      | MH    | HH     |
| E             | 898      | 1095  | 1077  | 920     | 1113  | 1166   |
| $\bar{X}$     | 299.33   | 365   | 359   | 306.67  | 371   | 388.67 |
| SD            | 8.34     | 24.18 | 46.73 | 6.94    | 37.48 | 33.31  |

TABLE XXXX : ANOVA SCORES OF AGGRESSION.

```

=====
CATEGORIES
  OF
AGGRESSION
  TEACHERS
  PARENTS
-----
LA           0.06           1.21
MA           2.6*           1.94
HA           15.37**          7.6 **
=====

```

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

TABLE XXXXI : ANOVA SCORES OF HYPERACTIVITY.

```

=====
CATEGORIES
  OF
HYPERACTIVITY
  TEACHERS
  PARENTS
-----
LH           3.54*           0.36
MH           3.38*          10.28**
HH           8.22**           2.33
=====

```

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above tables give ANOVA results for aggression and hyperactivity but of a different kind. They show the results of the two disorders, but according to the three categories of Low, Medium, and High; and the ratings of parents and teachers are given separately.

As can be seen in Table V, all the ratings of parents are significant, whereas the teacher ratings of only the high aggression group are significant.

TABLE XXXXII : ANOVA SCORES OF COMBINED PARENT-TEACHER RATINGS.

| DISORDER | ANOVA RESULTS | DISORDER | ANOVA RESULTS |
|----------|---------------|----------|---------------|
| LA       | 0.21          | LH       | 0.2           |
| MA       | 1.53          | MH       | 5.72**        |
| HA       | 7.27**        | HH       | 1.23          |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above table shows the ANOVA results across the 3 intervention phases. From the table, it can be seen that the only significant reduction has been in the case of the high aggression group and the medium hyperactivity group. In all the other groups, although there has been a reduction of the disorder it has not been significant.

TABLE XXXXIII : T-TEST SCORES, TREATMENT-WISE, OF EACH DISORDER,  
 WITH SEPARATE PARENT-TEACHER RATINGS.

|            |              | AGGRESSION |         | HYPERACTIVITY |         |
|------------|--------------|------------|---------|---------------|---------|
| CONDITIONS |              | TEACHERS   | PARENTS | TEACHERS      | PARENTS |
| T1         | PRE-POST     | 2.71       | 2.76*   | 3.1 **        | 2.9 *   |
|            | PRE-DELAYED  | 2.60*      | 3.35**  | 2.73*         | 5.94**  |
|            | POST-DELAYED | 1.60       | 1.83*   | 0.4           | 0.14    |
| T2         | PRE-POST     | 2.29*      | 2.87**  | 1.67          | 2.93*   |
|            | PRE-DELAYED  | 2.35*      | 3.08*   | 6.6 **        | 4.00**  |
|            | POST-DELAYED | 1.17       | 1.72    | 1.93*         | 4.82**  |
| T3         | PRE-POST     | 1.81       | 0.53    | 1.05          | 2.14    |
|            | PRE-DELAYED  | 1.30       | 0.77    | 2.13          | 3.15**  |
|            | POST-DELAYED | 1.57       | 1.22    | 0.91          | 0.53    |
| T4         | PRE-POST     | 1.9 *      | 2.39*   | 3.14**        | 5.74**  |
|            | PRE-DELAYED  | 2.22*      | 2.15*   | 2.89**        | 5.51**  |
|            | POST-DELAYED | 0.28       | 0.16    | 0.96          | 2.31*   |
| T5         | PRE-POST     | 1.00       | 1.15    | 0.90          | 1.04    |
|            | PRE-DELAYED  | 1.05       | 0.79    | 1.00          | 1.12    |
|            | POST-DELAYED | 0.23       | 0.25    | 0.57          | 0.89    |

\* significant at 0.05 level of significance

\*\* significant at 0.01 level of significance

The above table shows the t-test scores across the three intervention phases, treatment-wise, for the separate ratings of parents and teachers.

For T1 (yoga) there is a significant difference for the parents ratings on aggression in the pre-post condition, while for the other two conditions, that is, pre-delayed, and post-delayed, all the differences are significant. For hyperactivity, T1 has had a significant impact on the pre-post and pre-delayed conditions, while the post-delayed condition shows no significant difference.

Under the second treatment group T2 (reinforcement) in the pre-post condition, teacher ratings are significant for both disorders, and the parent ratings only for aggression. In the pre-delayed condition, the results for both disorders and of both raters are significant. In the post-delayed condition, except the teachers on aggression, the remaining 3 scores are all significant.

T3 shows no significant difference for aggression for either rater across any condition. For hyperactivity, T3 shows a significant difference for the parent ratings on the pre-delayed condition.

For the fourth treatment group, T4 (a combination of the three previously mentioned treatment strategies), the pre-post condition results are significant across disorders and raters, as is also the case with the pre-delayed condition. However, for the post-delayed condition, except for the parent rating on hyperactivity, the other 3 results are not significant.

For T5 (control group), none of the results across any condition either for disorder or rater are significant.

TABLE XXXXIV : ANOVA RESULTS, SEX-WISE.

|       | AGGRESSION |         | HYPERACTIVITY |         |
|-------|------------|---------|---------------|---------|
|       | TEACHERS   | PARENTS | TEACHERS      | PARENTS |
| GIRLS | 4.85*      | 5.12*   | 5.19*         | 3.14    |
| BOYS  | 3.15       | 2.28    | 2.48          | 1.53    |

\* significant at the 0.05 level of significance

\* \* significant at the 0.01 level of significance

The above table is a gender-wise analysis of the results, for each disorder, and with the different ratings of parents and teachers. As can be seen from the table, the girls show a significant reduction of aggression as rated by both parents and

teachers. Hyperactive behaviour, however, has reduced significantly only from the point of view of teachers. Whereas the parent ratings indicate that although there has been a considerable reduction in the children's hyperactive behaviour it is not statistically significant. In the case of boys, however, no reduction scores are significant, although a change can be seen.

TABLE XXXXV : ANOVA RESULTS, SCHOOL-WISE.

|          | AGGRESSION |         | HYPERACTIVITY |         |
|----------|------------|---------|---------------|---------|
|          | TEACHERS   | PARENTS | TEACHERS      | PARENTS |
| SCHOOL 1 | 2.22       | 5.83**  | 2.52          | 4.02 ** |
| SCHOOL 2 | 0.59       | 0.83    | 0.58          | 0.11    |
| SCHOOL 3 | 4.69*      | 1.51    | 6.04**        | 1.45    |

\* : Significant at 0.05 level

\* \* : Significant at 0.01 level

The above table gives the analysis of data according to the three schools from which the data was collected. According to the results in the table, School I has shown a significant difference in the ratings of parents, but not the teachers on both the disorders. In the case of School III, it is the other way round, where a significant difference can be seen on both disorders in the teacher ratings but not the ratings of parents. In the case of School II, however, neither the ratings of parents nor those of the teachers are significant, for either disorder.

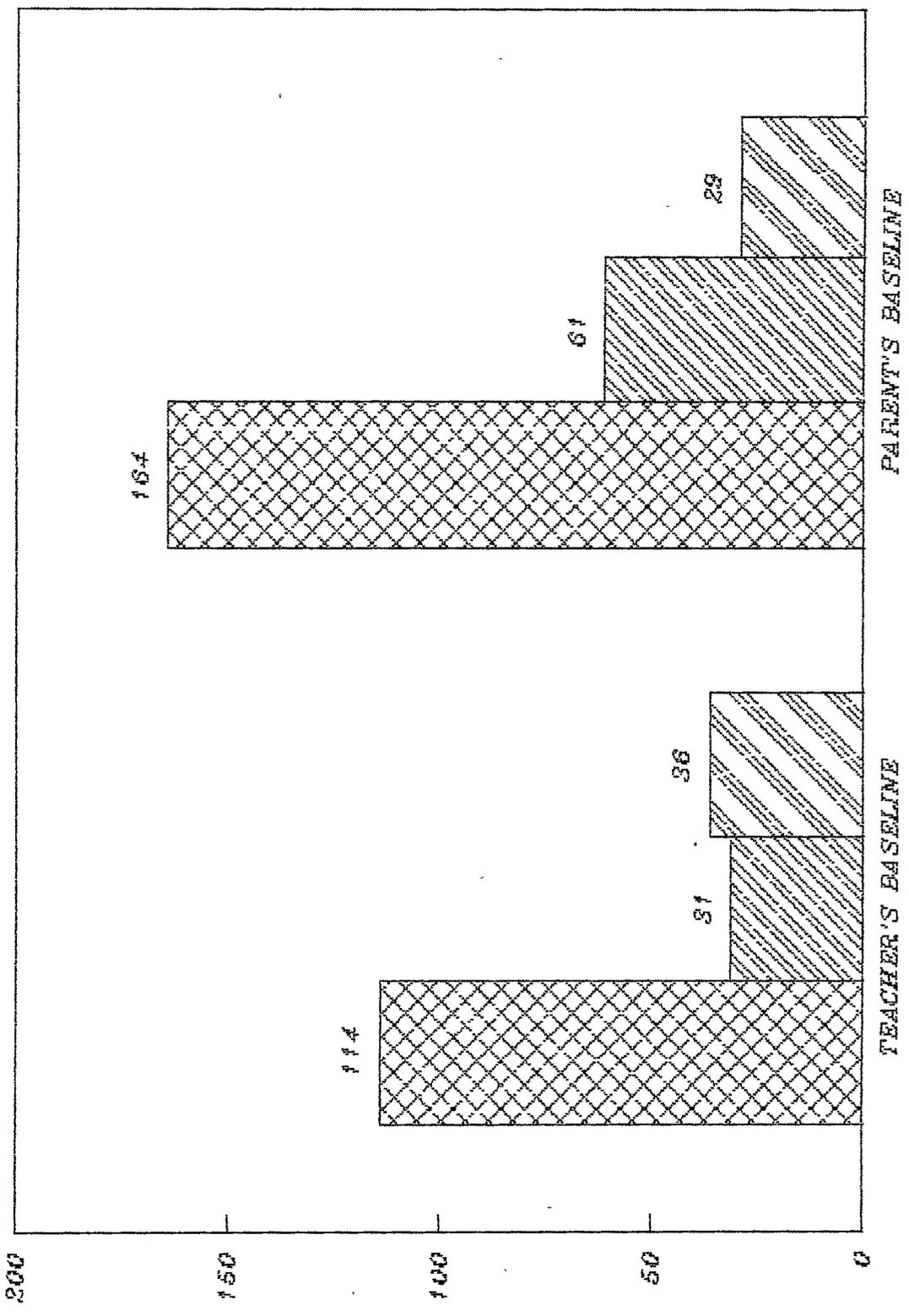
All the preceding analyses have been done on the raw data of the questionnaire ratings. The following tables give an overall view of the baseline data.

TABLE XXXXVI : BASELINE DATA, DISORDER-WISE.

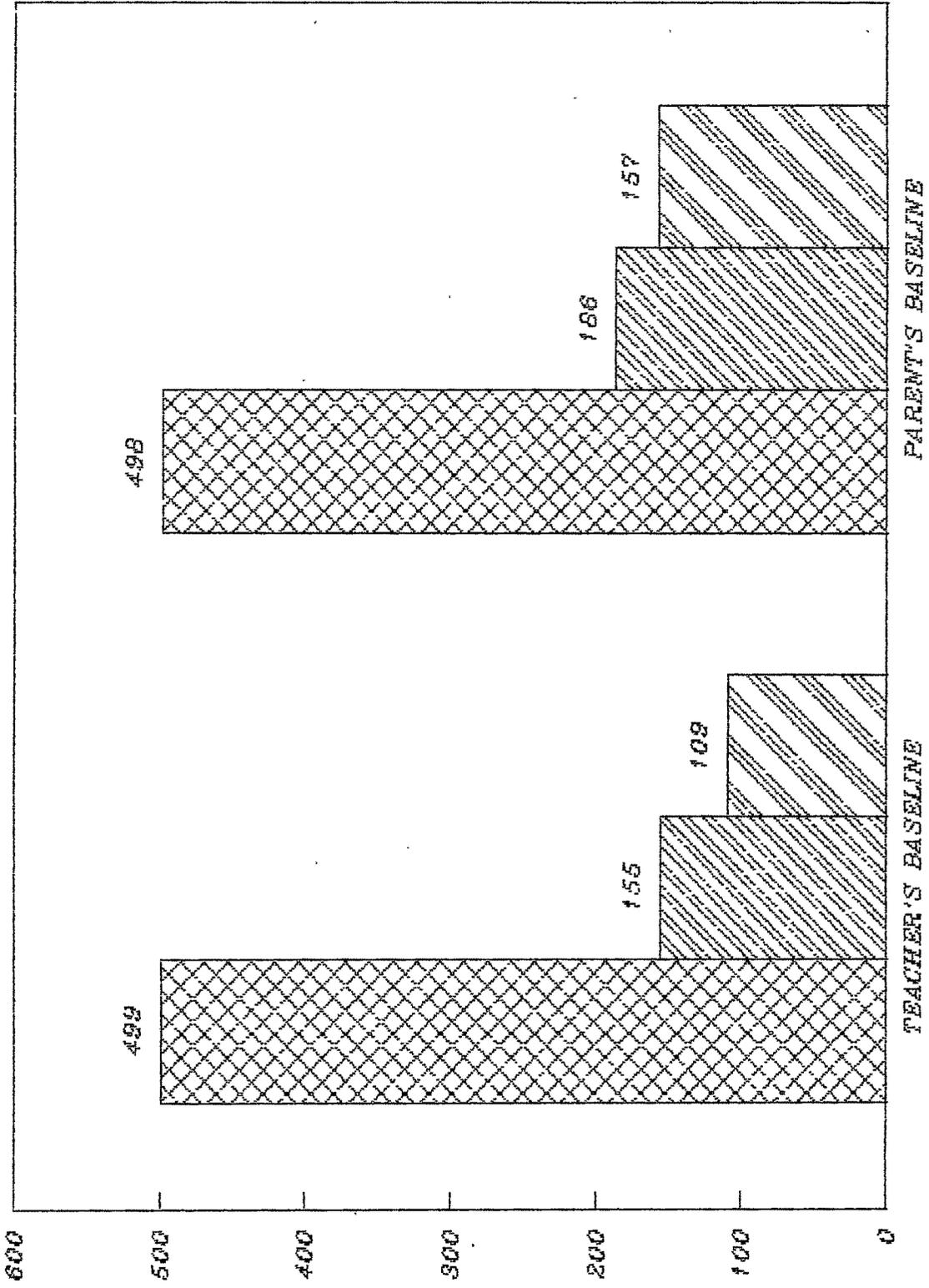
|    | TEACHERS |      |         | PARENTS |      |         |
|----|----------|------|---------|---------|------|---------|
|    | PRE      | POST | DELAYED | PRE     | POST | DELAYED |
| LA | 114      | 31   | 36      | 164     | 61   | 29      |
| MA | 499      | 155  | 109     | 418     | 186  | 157     |
| HA | 859      | 425  | 313     | 611     | 304  | 261     |
| LH | 114      | 28   | 31      | 228     | 109  | 70      |
| MH | 477      | 150  | 111     | 748     | 383  | 241     |
| HH | 915      | 427  | 277     | 948     | 482  | 311     |

Table XXXXVI, although it gives only the raw data, shows clearly the reduction of scores from pre- to post- intervention in all three categories of each disorder and, except for the teacher ratings on low aggression and low hyperactivity, the scores continue to show a decrease across the delayed condition too.

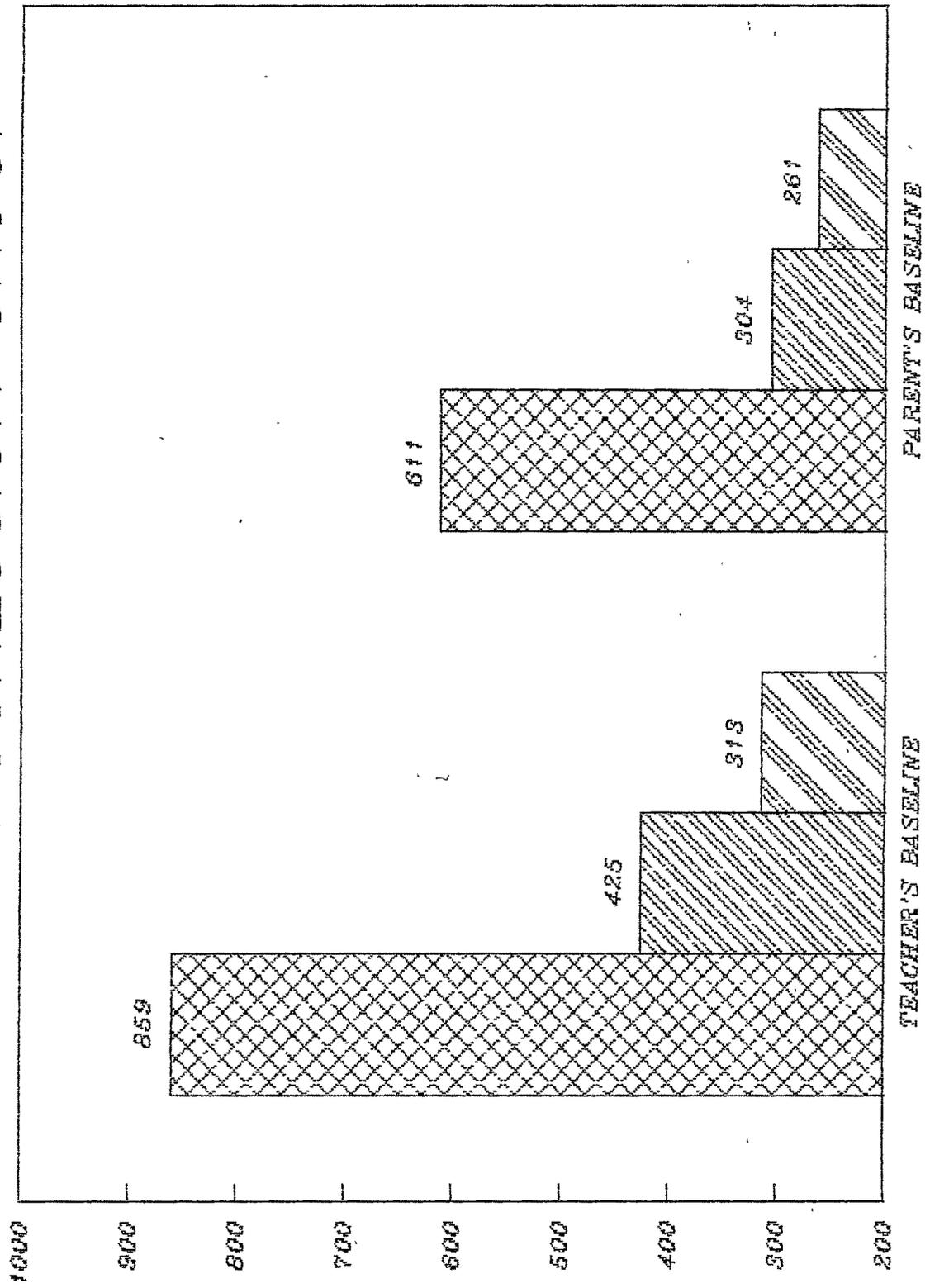
# LOW AGGRESSION GROUP



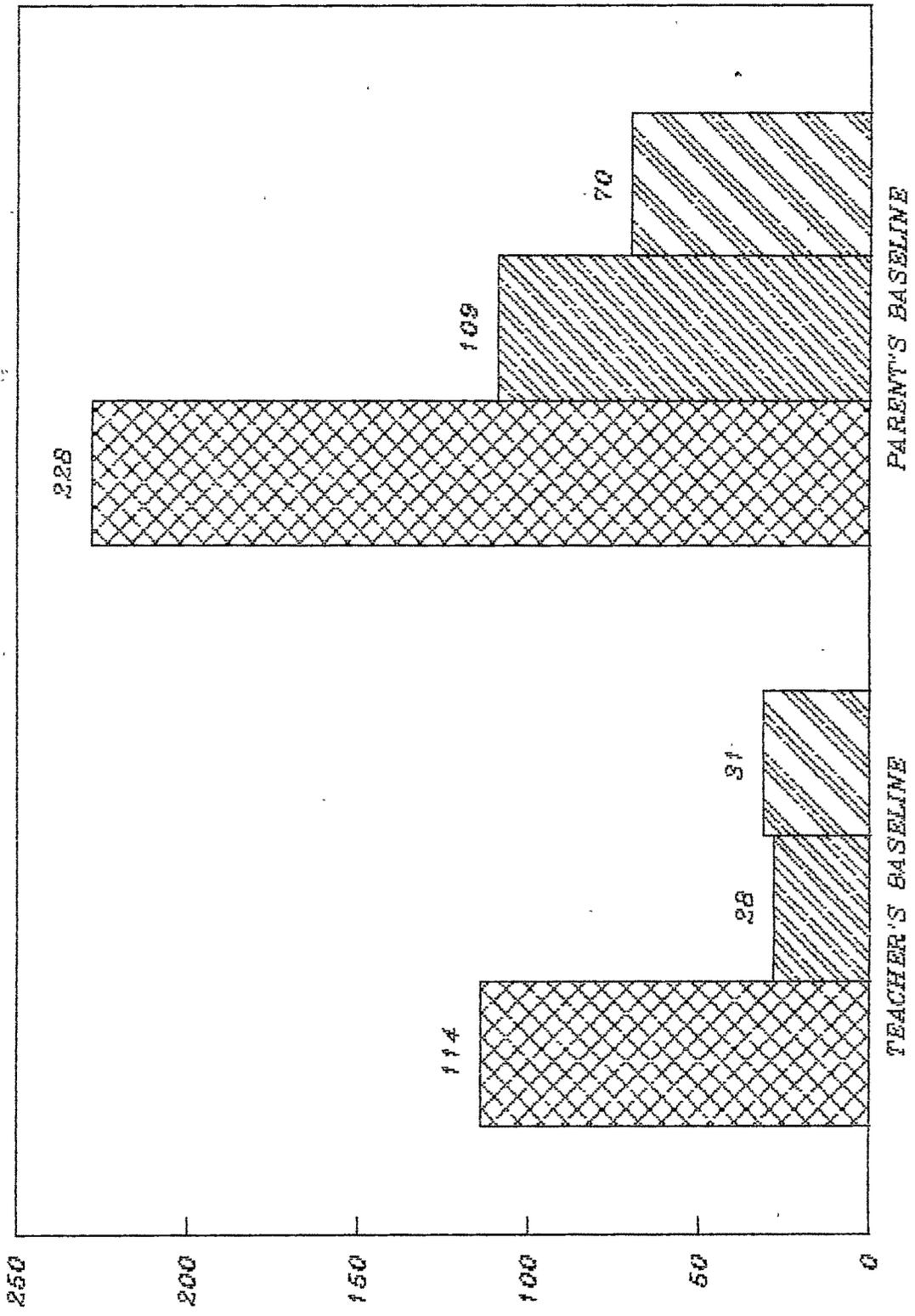
# MEDIUM AGGRESSION GROUP



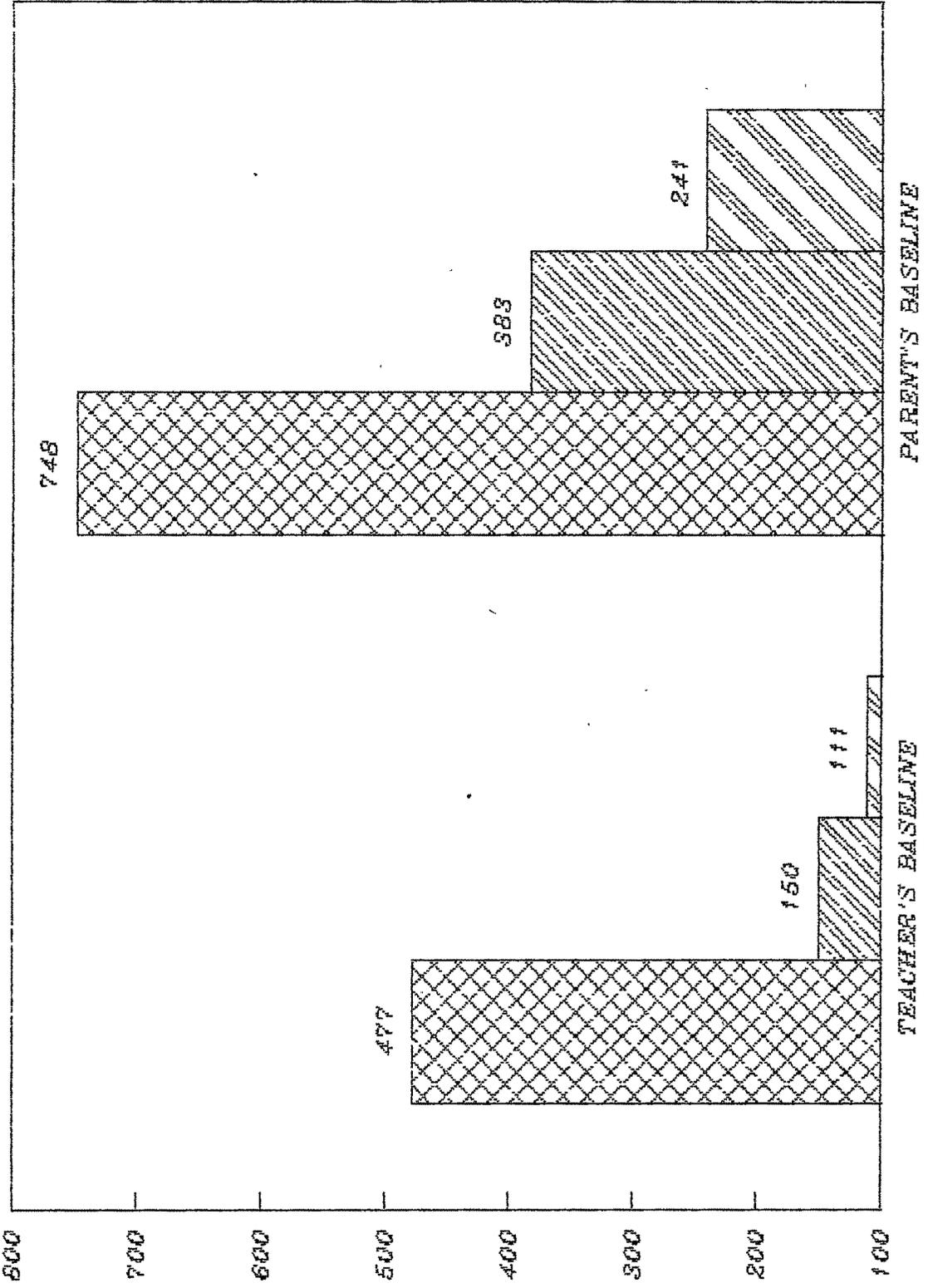
# HIGH AGGRESSION GROUP



# LOW HYPERACTIVITY GROUP



# MEDIUM HYPERACTIVITY GROUP



# HIGH HYPERACTIVITY GROUP

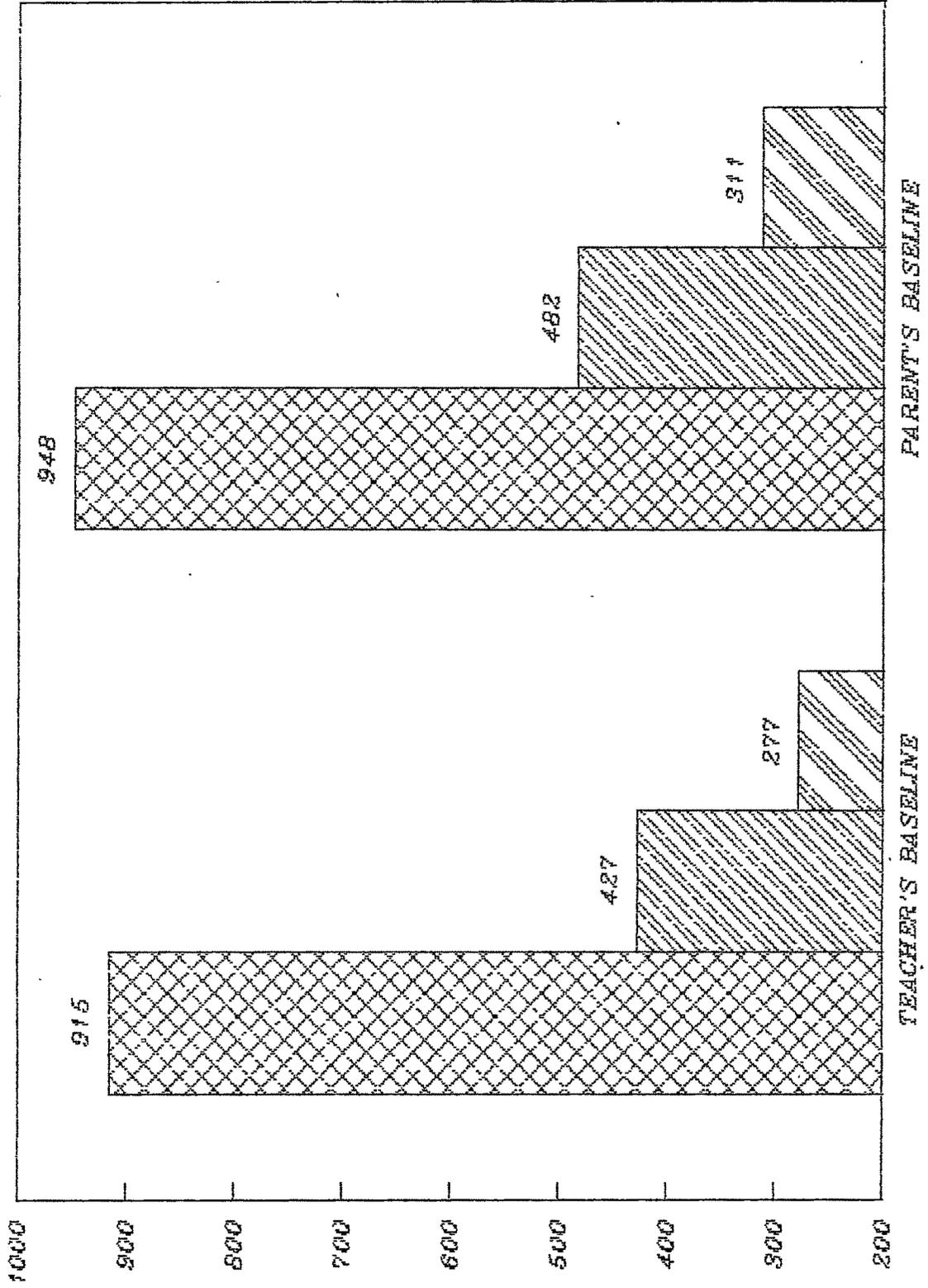


TABLE XXXXVII : BASELINE DATA, TREATMENT-WISE, FOR AGGRESSION.

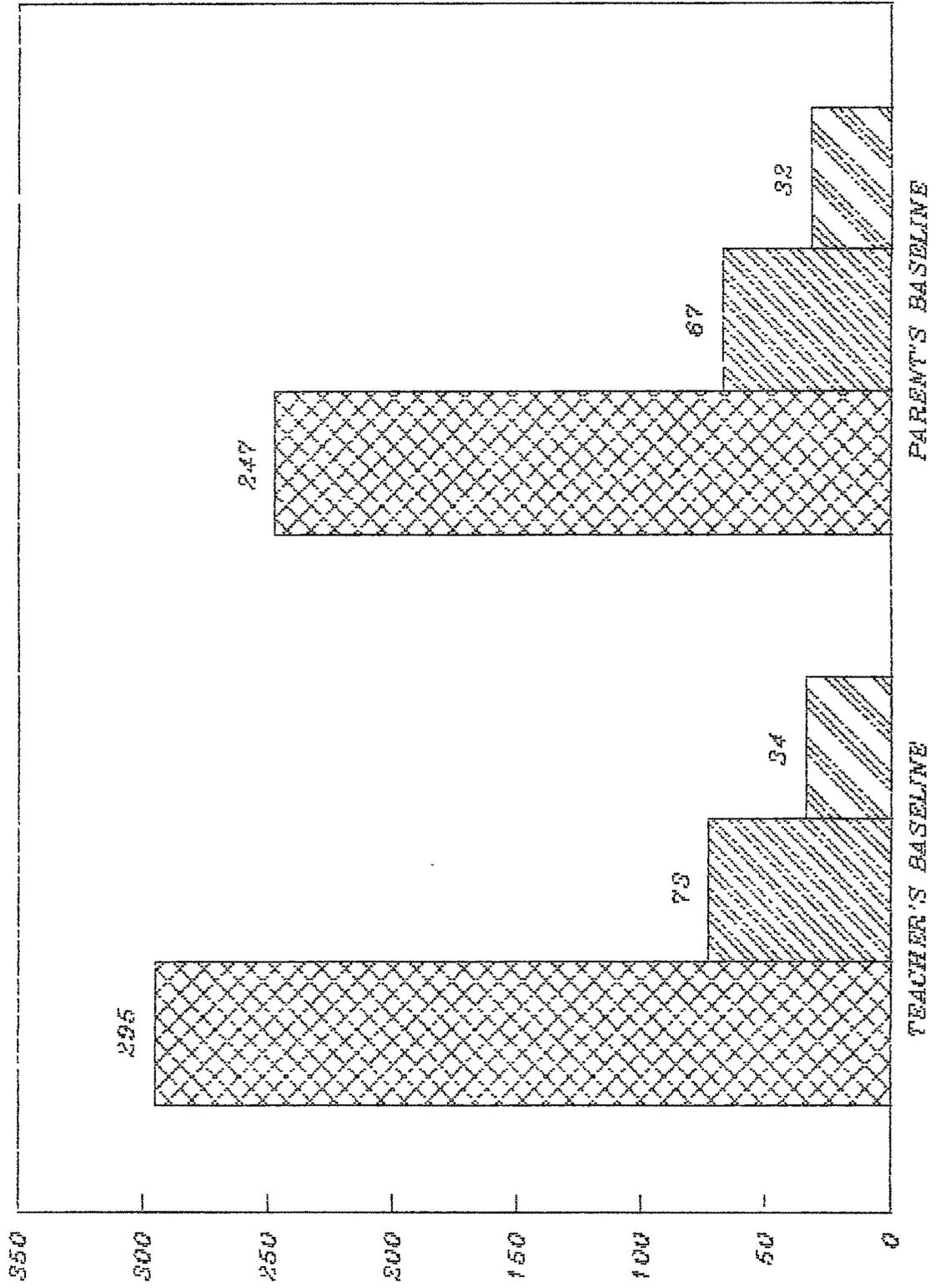
|    | TEACHERS |      |         | PARENTS |      |         |
|----|----------|------|---------|---------|------|---------|
|    | PRE      | POST | DELAYED | PRE     | POST | DELAYED |
| T1 | 295      | 73   | 34      | 247     | 67   | 32      |
| T2 | 327      | 111  | 51      | 270     | 106  | 43      |
| T3 | 144      | 47   | 26      | 125     | 46   | 25      |
| T4 | 375      | 136  | 98      | 347     | 116  | 98      |
| T5 | 342      | 244  | 251     | 299     | 216  | 255     |

TABLE XXXXVIII : BASELINE-DATA, TREATMENT-WISE, FOR HYPERACTIVITY,

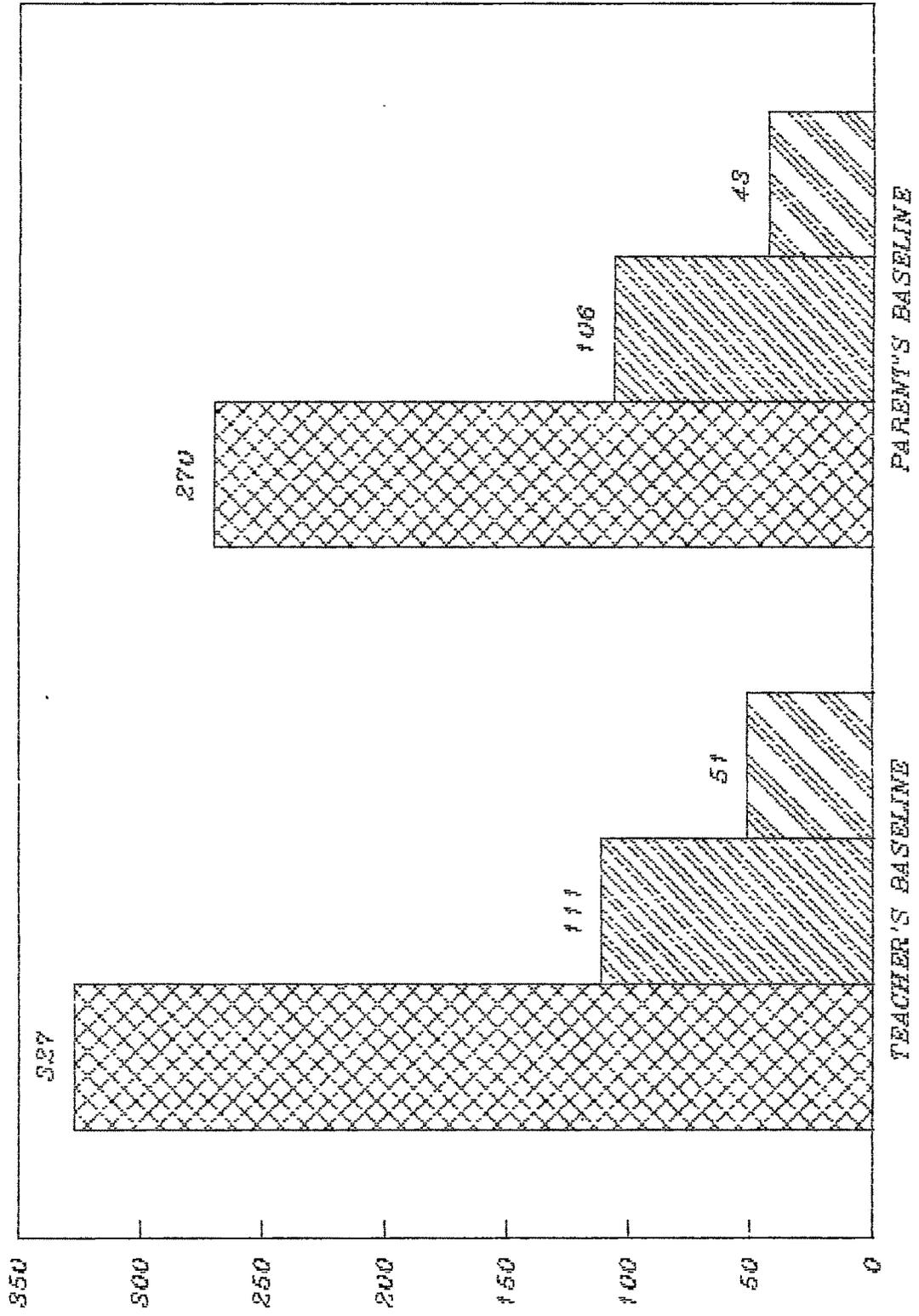
|    | TEACHERS |      |         | PARENTS |      |         |
|----|----------|------|---------|---------|------|---------|
|    | PRE      | POST | DELAYED | PRE     | POST | DELAYED |
| T1 | 327      | 102  | 53      | 438     | 200  | 93      |
| T2 | 312      | 96   | 36      | 355     | 126  | 43      |
| T3 | 240      | 77   | 19      | 373     | 184  | 60      |
| T4 | 283      | 69   | 24      | 416     | 139  | 60      |
| T5 | 298      | 261  | 287     | 363     | 320  | 351     |

The above two tables give the same baseline data, but here it is tabulated according to the intervention strategies for aggression and hyperactivity. Again, considerable reduction of baseline scores can be seen across all the three conditions. The exception is T5 (control group) where the scores in the delayed phase are higher than in the post-intervention phase.

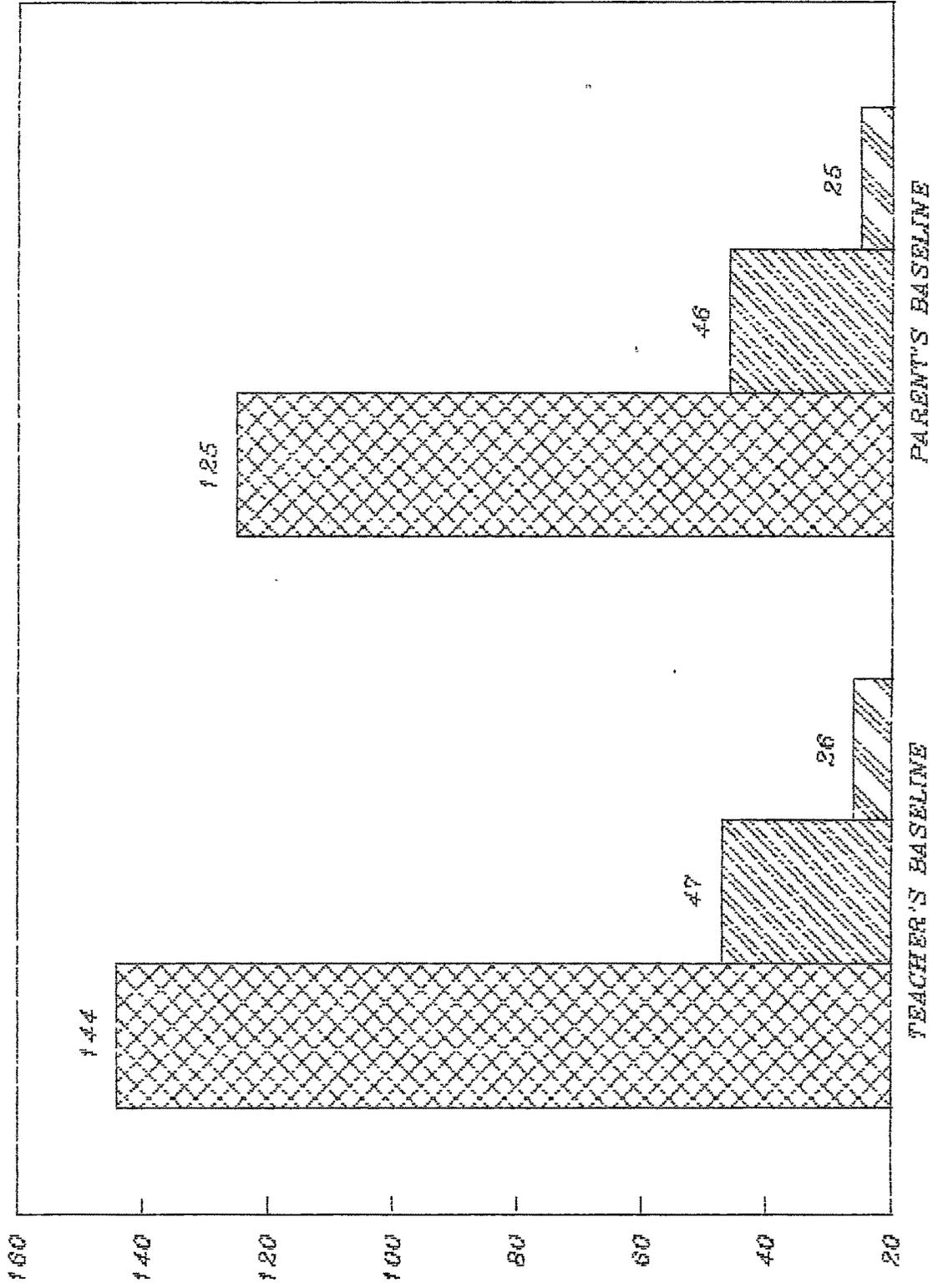
# GROUP ONE — AGGRESSION



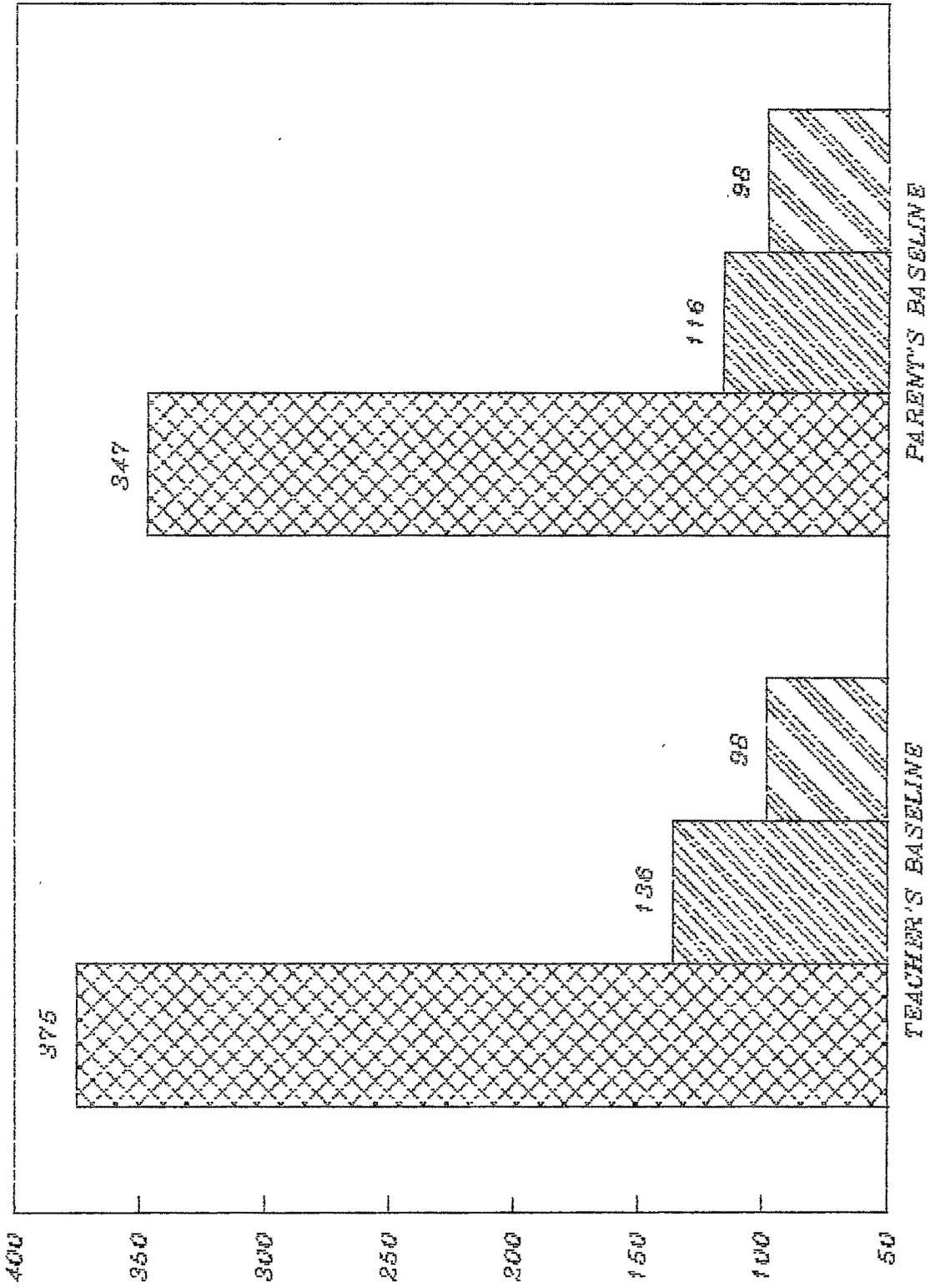
# GROUP TWO AGGRESSION



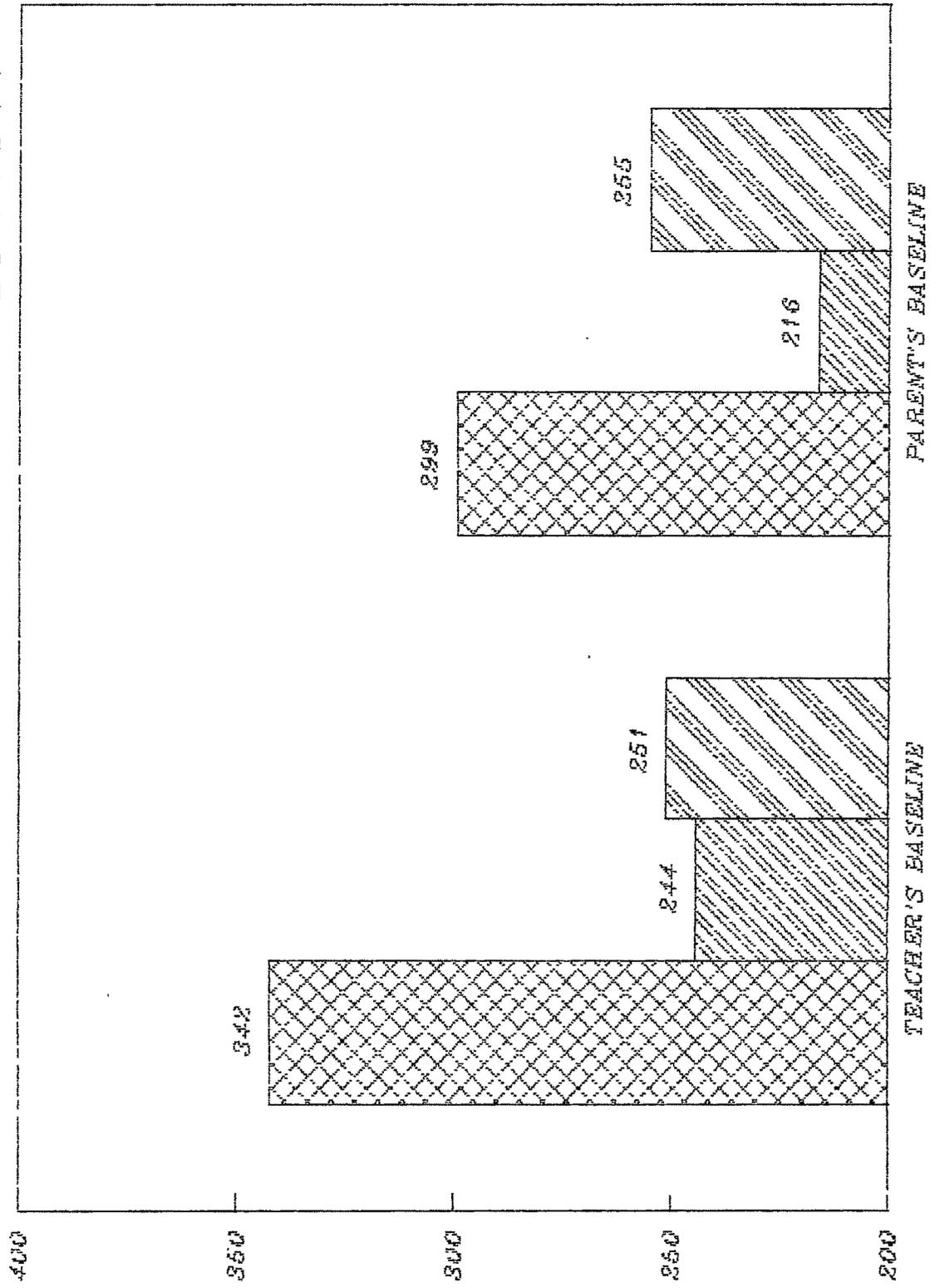
# GROUP THREE -- AGGRESSION



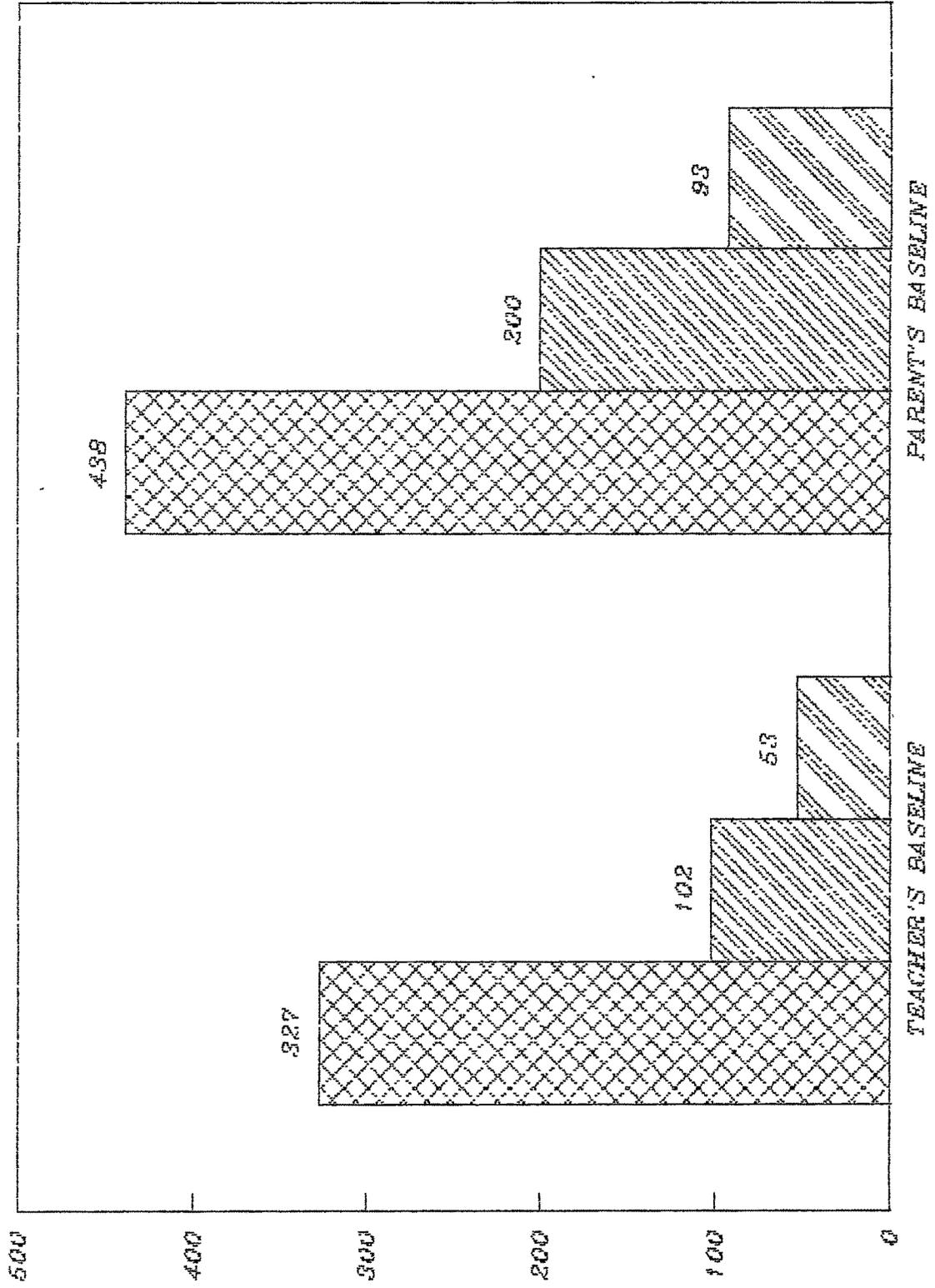
# GROUP FOUR - AGGRESSION



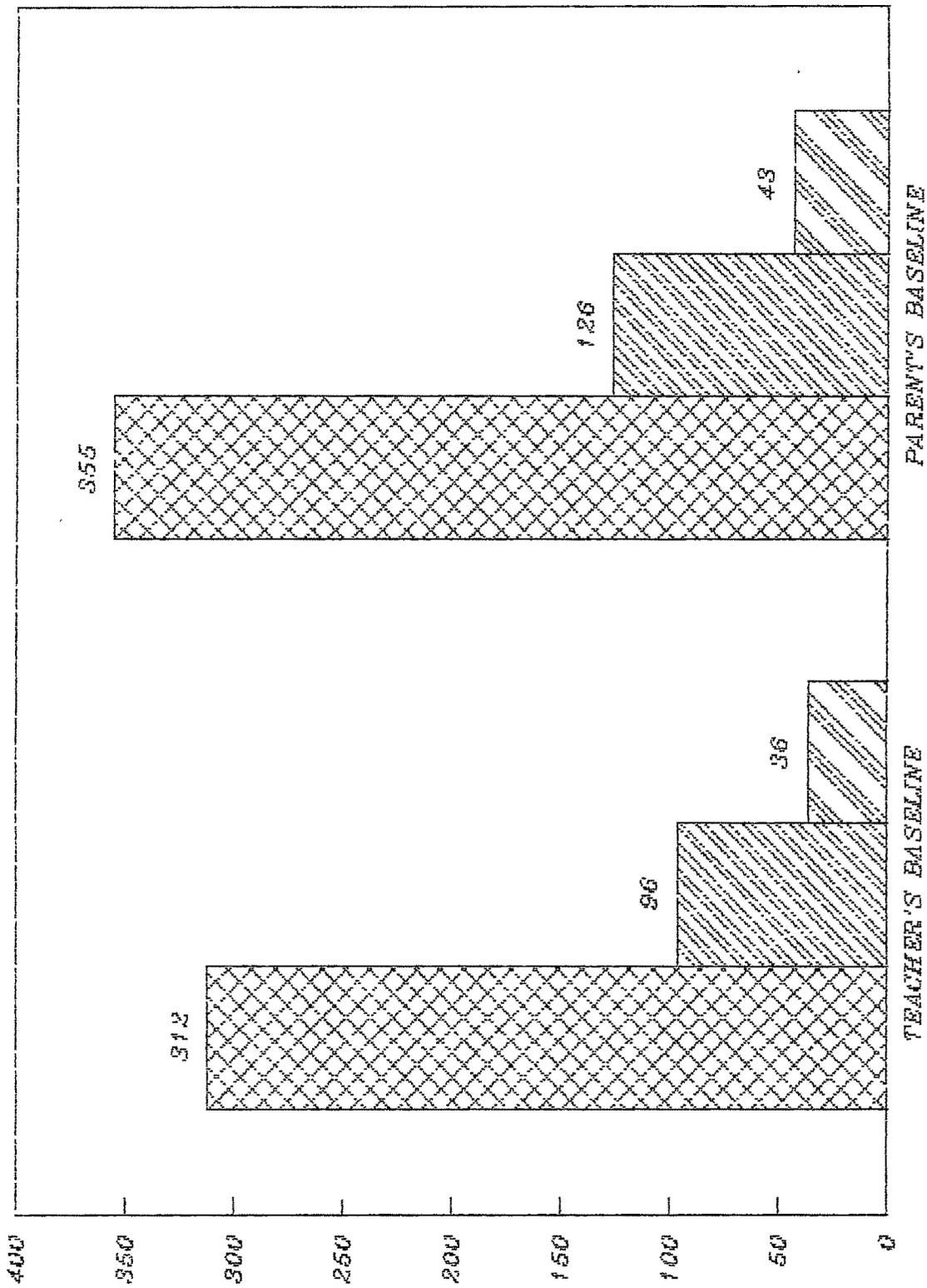
# GROUP FIVE — AGGRESSION



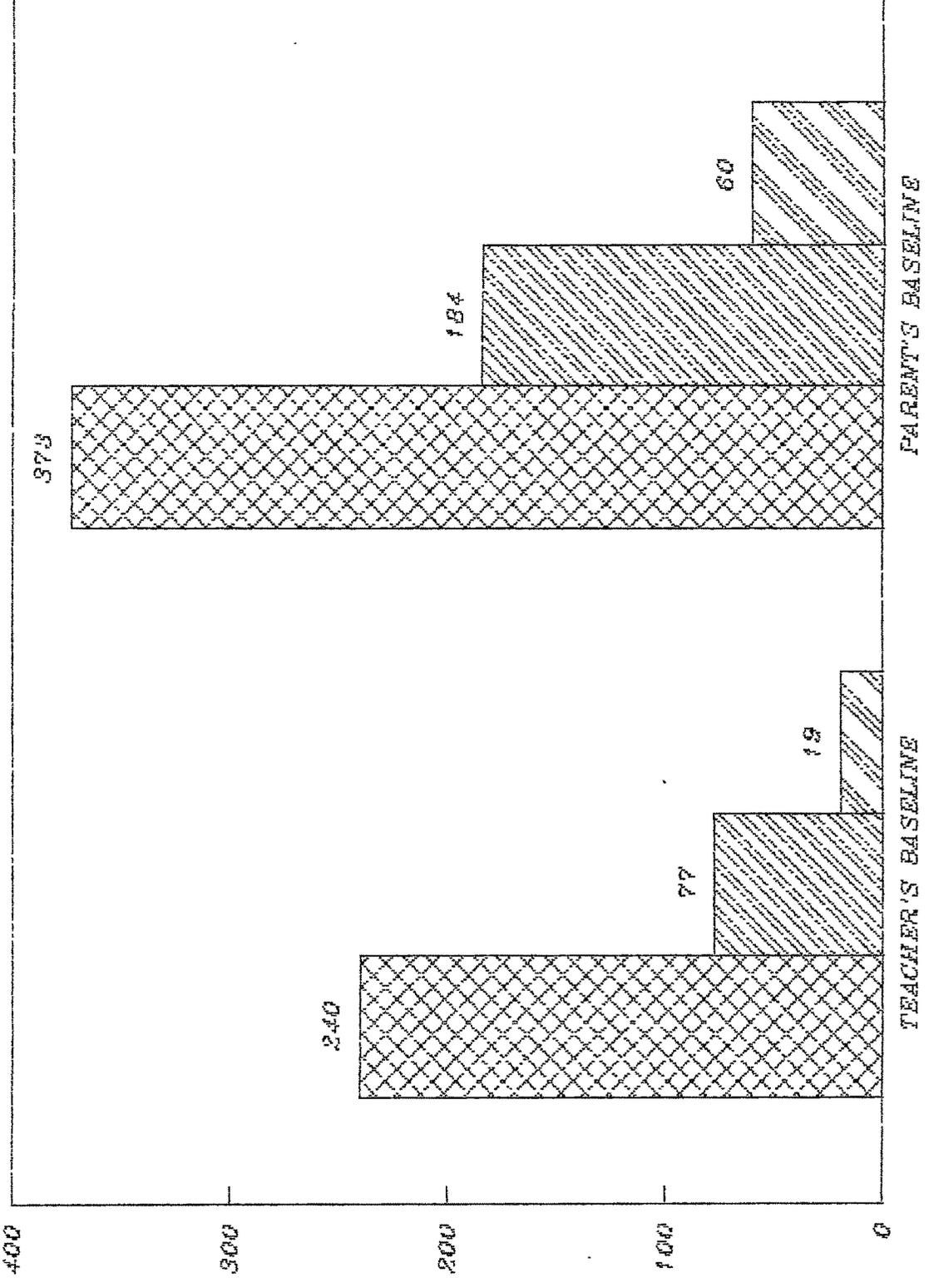
# GROUP ONE - HYPERACTIVITY



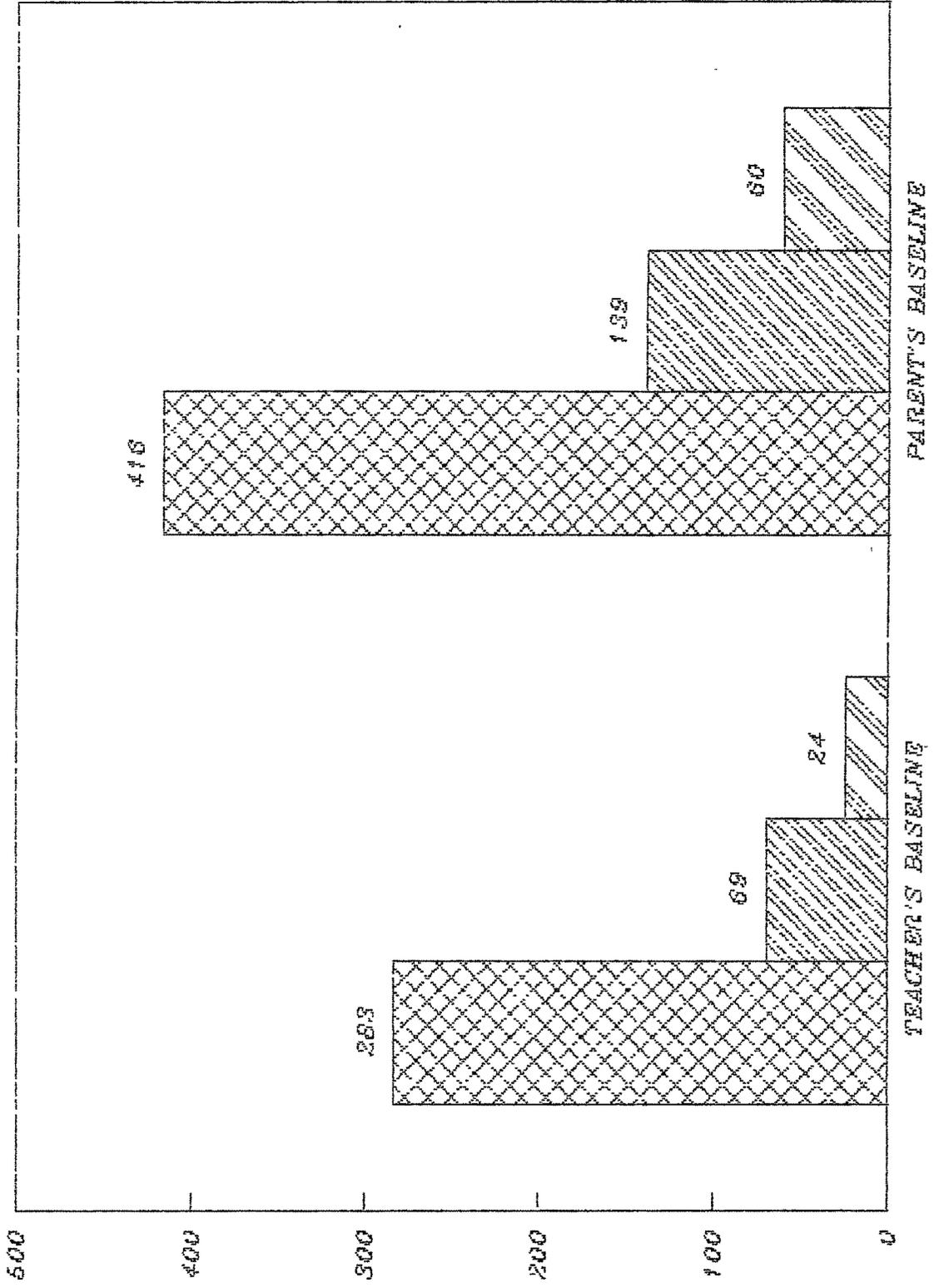
# GROUP TWO - HYPERACTIVITY



# GROUP THREE - HYPERACTIVITY



# GROUP FOUR - HYPERACTIVITY



# GROUP FIVE — HYPERACTIVITY

