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ABSTRACT The study examined the effectiveness of two psychoeducational treatment approaches and drug therapy on the impulsivity of 120 hyperactive emotionally disturbed children in two age groups (mean ages 13 and 8 years old). The psychoeducational approaches tested were modeling of reflective behavior and a specific instructional procedure to increase reflective behavior. Drug therapy's effects were considered alone and in combination with the instructional approaches. Pre- and post-test measures of error and time were compared for Ss on the Matching Familiar Figures Test, the coding subtest of the Wechsler Intelligence Scale for Children-Revised, and a school-related copying task. Results revealed a developmental trend toward reflection in hyperactive children. In contrast to previous research, it was found that Ss treated without drug therapy performed significantly better than Ss treated with stimulant drug therapy. The use of psychoeducational approaches was effective in altering Ss' impulsive responding. (CL)

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A COMPARISON OF DIFFERENTIAL TREATMENT APPROACHES FOR IMPULSIVE  
RESPONDING OF HYPERACTIVE CHILDREN AT TWO AGE LEVELS

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## ABSTRACT

# A COMPARISON OF DIFFERENTIAL TREATMENT APPROACHES FOR IMPULSIVE RESPONDING OF HYPERACTIVE CHILDREN AT TWO AGE LEVELS

by

Ronald Terry Brown

### Purpose

The major purpose of this research was to identify the best approach for treating impulsivity in hyperactive children. The treatment approaches investigated were two psychoeducational procedures. These procedures were studied in two groups: children receiving stimulant drug therapy and children not receiving stimulant drug therapy. The effect of the treatment approaches at two different age levels was also studied in order to determine the best treatment approach for each age group of hyperactive children. At the same time, the presence of a developmental trend in impulsivity was evaluated in hyperactive children. This research concerned the general hypothesis that those children receiving stimulant medication and psychoeducational training would perform significantly better on school-related cognitive tasks than those children receiving no medication or psychoeducational intervention.

## Methods and Procedures

To accomplish this purpose, subjects were children having behavior problems so severe that they were excluded from the public schools. All children were thoroughly screened and identified as hyperactive after rigorous diagnostic examinations by qualified psychologists and psychiatrists.

One hundred twenty hyperactive children at two age levels clinically diagnosed as hyperactive met the criteria for subject participation. Approximately one-half of each age group (eight-year-olds and thirteen-year-olds) was selected from the children receiving stimulant drug therapy while the other half was selected from the children receiving no medication. The major independent variables studied were age, drug-therapy condition, and psychoeducational treatment condition, while the dependent variables were the scores obtained from Kagan's Matching Familiar Figures Test, the coding subtest of the WISC-R, and a school related copying task. The children in each of the medication conditions were further assigned randomly to one of two psychoeducational treatment conditions designed to alter impulsive responding, modeling and direct instruction, or to a control condition. By the use of six dependent measures, each child was evaluated one week after he received the psychoeducational intervention. To assess the relative endurance of any change

each child was again evaluated seven weeks after the training intervention sessions.

### Results

Two measures, errors and time, were obtained from each of the psychometric tests. To ascertain whether differences occurred both before and immediately after treatment and then later, three separate 2(age) x 3(Treatment Condition) x 2(Drug Therapy Condition) multivariate analyses of variance were carried out. For any significant main effects, separate univariate analyses of variance were performed on each of the six dependent measures. Appropriate post-hoc comparisons were also performed for any significant main effects on univariate measures. Significant main effects occurred for age ( $p < .001$ ) and for drug therapy ( $p < .002$ ) in each analysis and for treatment condition ( $p < .02$ ) in the second analysis.

### Conclusions

The results indicated that the use of psychoeducational treatment approaches are of value in altering the impulsive responding of hyperactive children. Direct instructional strategies are most likely to be of value in ameliorating impulsive responding for both older and younger groups of hyperactive children.

The present finding that children treated without drug-therapy performed significantly better than those children treated with stimulant drug therapy has not been found

previously. One explanation for this present finding, and it is only conjecture, is that high dosages of stimulant drugs, which were characteristic of the amounts prescribed to the children participating in this study, are detrimental to the cognitive performance of hyperactive children on school-related tasks.

Consistent with the findings in follow-up studies of hyperactive children which suggests that hyperactivity diminishes at adolescence is the present finding that there is a developmental trend away from impulsivity in hyperactive children. In addition, these findings support the construct validity of error measures and raise questions about the use of latency measures in evaluating hyperactive children.

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