

The Relationship of Behavior Problems to Developmental Deficits in Children with Behavior Disorders

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ABSTRACT

The purpose of this study was to examine the assumption in the Developmental Therapy model that there is a close relationship between presenting behavior problems and developmental deficits. The assumption was tested by running a stepwise, backward multiple regression analysis on scores obtained for 33 subjects on two instruments used in the Developmental Therapy model to assess presenting behavior problems and developmental deficits. The analysis failed to support the assumption that the two classes of variables are related.

INTRODUCTION

The state of Georgia has developed a state-wide network of psycho-educational treatment centers for emotionally disturbed children. This network of psychoeducational treatment facilities operates under a uniform model. The prototype facility (Rutland Center) upon which the model is based was developed in Athens, Georgia (Wood, 1972, 1975). At present, the model is receiving state, regional, and national dissemination.

One major assumption made by the Developmental Therapy model is that the remediation of developmental deficits will correct the presenting behavior problems encountered in children with behavior disorders. Experience with the model resulted in this investigator questioning the validity of the above assumption. The research reported here is an attempt to test the assumption that there is a relationship between behavior problems and developmental deficits in children with behavior disorders.

METHOD

The sample consisted of 33 children ranging in age from five to 12 years of age. There were 28 males and five females. The entire sample was caucasian. The 33 subjects represented the treatment population of one psychoeducational treatment center for the 1975-1976 school year. The sample had three limitations: First, the sample was not randomly selected but was a sample of convenience; second, the sample consisted not just of children identified as disturbed but was confined to those considered severely enough disturbed to warrant the special facilities and program of the treatment center; and, third, the sample was relatively small and not suitable for generalizing from with great confidence. There is one indication of some representativeness in the sample and that is the ratio of male and female subjects. A large-scale investigation of public-school classes for emotionally disturbed children (Morse, Cutler, and Fink, 1964) revealed a male/female ratio of more than five to one. The ratio in the sample of this study closely approximated the ratio found in the study cited.

Evaluation of children served by the psychoeducational treatment center was accomplished, in part, by the use of two rating instruments developed as part of the model (Wood, 1972). In their actual use neither of the instruments are used in such a way as to produce a quantitative score. In order to carry out this investigation, it was necessary to quantify the results obtained by these instruments.

The first instrument is the Referral Form Checklist (RFCL) which is divided into four areas: Behavior Problems, Communication Problems, Socialization Problems, and Academic Problems. There are a total of 53 items on the checklist. Each item is rated on a five point scale where one is a high priority problem and five indicates no problem. From this checklist the best total score possible is 255 and the worst possible score is 53. The behavior dimension is assigned 24 items, communication 13 items, socialization 10 items, and academics six items.

The second instrument is the Developmental Representative Objectives Rating Form (DRORF) which is also divided into four areas: Behavior Problems, Communication Problems, Socialization Problems, and Academic Problems. This form consists of a hierarchy of developmental skills, each of which a child is judged as either having or not having on the basis of observation and/or testing. There are a total of 140 items on this form with the best possible score being 140 and the worst possible score being 0. The behavior dimension is assigned 26 items, communication 29 items, socialization 30 items, and academics 55 items. Each dimension on this rating form is divided into four hierarchically arranged groups representing different developmental levels. There are four treatment programs, each oriented toward one of these four developmental levels.

Thus, for each of the 33 subjects, a total of ten raw scores were obtained, five scores related to behavior problems and five scores related to developmental deficits.

In this study the research and statistical hypotheses were the same. The hypotheses were that for the population under consideration there would be no statistically significant correlational relationships between (1) the mean score on each of the four dimensions of behavior problems evaluation instrument (RFCL) and the mean total score on the developmental deficits evaluation instrument (DRORF); (2) the mean score on each of the four dimensions of the developmental deficits evaluation instrument (DRORF) and the mean total score on the behavior problems evaluation instrument (RFCL); (3) the mean total score on the developmental deficits evaluation instrument (DRORF) and the mean total score on the behavior problems evaluation instrument (RFCL); and (4) the mean total score on the behavior problems evaluation instrument (RFCL) and the mean total score on the developmental deficits evaluation instrument (DRORF).

RESULTS

The statistical evaluation was accomplished using a stepwise, backward multiple regression analysis. This analysis was done using the multiple regression program in the Statistical Package for the Social Sciences. The F-test with a .95 confidence interval was used to test for significant R's. When the total developmental deficit score (DRORF) was used as the criterion variable, none of the correlations obtained between the mean subscale scores, and the mean total score on the behavior problems instrument (RFCL) were significant (see *Table 1*). When the total behavior problems score (RFCL) was used as the criterion variable, none of the correlations obtained between the mean subscale scores, and the mean total score on the developmental deficits instrument (DRORF) were significant (see *Table 2*).

DISCUSSION

The hypothesis that there was no statistically significant relationship between the behavior problems variable and the developmental deficits variable was supported. None of the possible relationships tested were statistically significant.

TABLE 1

Correlations between the mean Total Score (TD) on the DRORF Instrument (criterion variable) and the mean subscores and mean Total Score on the RFCL Instrument.

Variable		R	R ²	Beta	F	df	
AP	Academic Problems		0.596	0.355	.645	17.086	1,31
BP	Behavior Problems		0.605	0.366	-0.153	8.666	2,30
SP	Social Problems		0.609	0.371	0.133	5.697	3,29
CP	Communication Problems		0.613	0.376	-0.094	4.212	4,28
TP	Total Problems		0.289	0.084	0.289	2.826	1,31

TABLE 2

Correlations between the mean Total Score (TP) on the RFCL Instrument (criterion variable) and the mean subscores and mean Total Score on the DRORF Instrument.

Variable		R	R ²	Beta	F	df	
BD	Behavior Deficits		0.357	0.127	0.632	4.525	1,31
SD	Social Deficits		0.394	0.155	-0.350	2.751	2,30
AD	Academic Deficits		0.422	0.178	0.430	2.091	3,29
CD	Communication Deficits		0.440	0.193	-0.375	1.677	4,28
TD	Total Deficits		0.289	0.084	0.289	2.826	1,31

problems and developmental deficits suggests that there may be little or no relationship between these two classes of variables.

The findings of this study calls into question the assumption that the remediation of developmental deficits will correct the presenting behavior problems. If there were such a relationship as the one assumed, it would be reasonable to expect that the more severe the presenting problems the greater would be the developmental deficits. Conversely, if remediation of developmental deficits could correct the presenting behavior problems, one would expect to find mild presenting problems associated with modest developmental deficits. In fact, a wide range of possible combinations between the two major variables was observed.

There does not appear to have been any validation study done on the Developmental Therapy model, at least none are cited in the descriptions of the model (Wood, 1972, 1975). The fact that children who are treated under the model do improve is in itself no validation of the assumption underlying the treatment approach. It may well be that the presenting problems are being treated more directly and conceptually independent of the Developmental Therapy model. Another possibility is that the improvements seen in some children are merely due to the passage of time (Glavin, 1972 and Lovitt, 1957).

While the use of a developmental curriculum is viewed as being both acceptable and appropriate, the assumption that the use of such a curriculum will correct presenting behavior problems is questioned. It is the opinion of this writer that treatment strategies directly related to the presenting problems indicated on the Referral Form Checklist probably need to be incorporated into the model to compliment the developmental curriculum.

This study needs to be repeated with a larger sample in order to confirm or refute its findings.

The author acknowledges the cooperation and assistance of Ms. Sara Reale, Director of Cobb Children's Center. Address inquires for reprints to David B. Center; Department of Special Education; University of South Alabama; Mobile, Alabama 36688.

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