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## ABSTRACT

This research report contains seven papers on students with serious Emotional Disturbances (SED) and/or Severe Behavior Disorder (SBD) who participated in the Georgia Psychoeducational Network Program (GPN). "The 1982 Cohort of GPN Preschoolers--Where Are They in 1987-1988?" (Juanda Ponsell and others) reports the placement of 75 preschoolers with SED/SBD 5 years later. "A Five Year Follow-up of the 1981-1982 Cohort of Handicapped Preschoolers Served in the GPN" (William W. Swan and others) evaluates the placement of 169 preschoolers 5 years later. "Staff Development Needs of Beginning and Experienced Teachers of BD/SED Students--An Initial Study" (Judi Kelley) reports results of a questionnaire on 44 teachers' staff development needs. "Prescribed Medications for SED/SBD Children and Youth in 1987-1988" (Wayne Moffett and others) reports on a study of 764 students with SED/SBD who received prescribed medication. In "A Comparison of Teacher Perceptions of BD/SED Student Behaviors in Three Placements--A Pilot Study" (John T. Haggerty and Thomas H. Cope), a study evaluating teachers' perceptions of the behaviors of 43 boys with SED/SBD is reported. "Demographic Descriptors of GPN Students--1986-1987" (N. Wayne Moffett and William W. Swan) evaluates demographic data of 4209 students with SED/SBD. "The Dalton Emotional Severity Index--An Interim Report on Development" (George Andros) describes the history of the development of this measure. (Each paper contains references.) (CR)

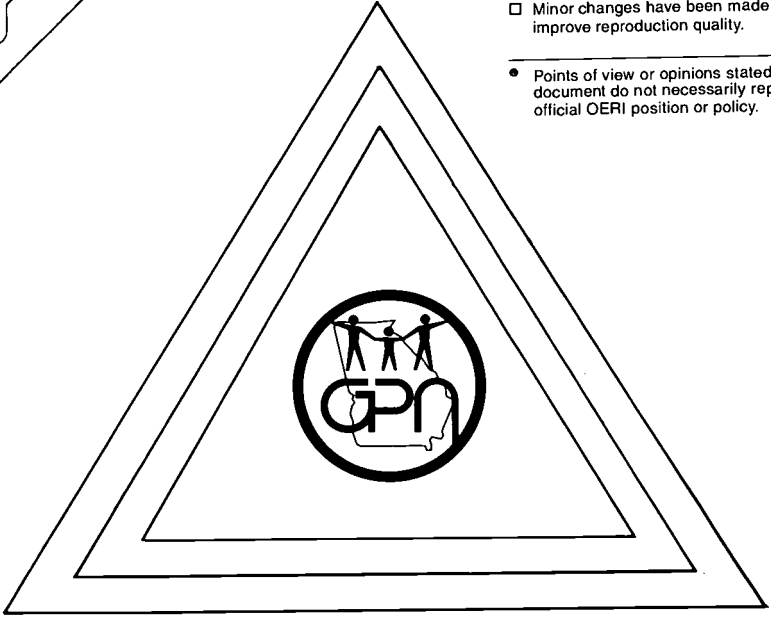
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# GPN RESEARCH REPORT

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GPN Research Report



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The GPN RESEARCH REPORT is published by a consortium of the Georgia Psychoeducational Network, the Georgia Department of Education, and the University of Georgia to serve the needs of those who educate severely emotionally disturbed and severely behaviorally disordered students in Georgia. The emphasis is on both quantitative and qualitative research in all areas of operation of the Programs.

**ORDERING INFORMATION:** Individuals who wish to receive the GPN RESEARCH REPORT should contact: Dr. Wayne Moffett, Director, Alpine Psychoeducational Program, P.O. Box 2459, Gainesville, Georgia, 30501. Copies of the GPN RESEARCH REPORT are \$3.00 each. Checks should be made payable to Pioneer RESA.

# GPN Research Report #88-001, 3, 1988

## THE GEORGIA PSYCHOEDUCATIONAL NETWORK (GPN) RESEARCH REPORT

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# The 1982-1983 Cohort of GPN Preschoolers – Where Are They in 1987-1988?

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*The purpose of this study was to follow-up a random sample of preschool students who were severely emotionally disturbed/severely behaviorally disordered (SED/SBD) and served in 1982-1983. Data were gathered on 75 students randomly selected throughout the state. Placement information in 1987-1988 was available on 59 of the students: 27 (36%) were placed in general education classes, 6 (8%) in special education resource classes, 19 (25%) in special education self-contained classes, 4 (5%) in Georgia Psychoeducational Network Program classes, 2 (3%) at home or in day care, 1 (1%) in other placement, and 16 (22%) had moved or could not be located. Results based on analyses of demographic, treatment, and follow-up variables strongly supported the need for an array of placements (continuum of services) during the preschool years, placement in less restrictive placements (LRE) over the five year period after receiving services as preschoolers, and use of the noncategorical handicap label. Recommendations for continuing investigations of preschool programs are provided.*

The positive effects of early intervention programs in Georgia for the handicapped have been demonstrated in several articles (Ponsell, Jacob, LeClair, Moore, & Pickens, 1987; Swan, Brown, & Jacob, 1987; Swan, Ponsell, Jacob, LeClair, Moore, & Pickens, 1988). While these results are generally consistent with studies in other states (e.g., Edgar, McNulty, Gaetz, &

Maddox, 1984; McNulty, Smith, & Soper, 1982), continuing investigation into varied preschool programs in Georgia is necessary to focus on the effectiveness of alternative treatment settings, longitudinal relationship among demographic and treatment variables and placement variables, and implications for serving all preschool handicapped children throughout Georgia. Studies such as this one become increasingly important as Georgia considers whether it will respond to the incentives under P.L. 99-457 (1986) by mandating services to all preschool handicapped children and their families by 1990-1991.

The Georgia Psychoeducational Network (GPN) is comprised of 24 community-based, nonresidential Programs. The GPN Programs have provided home and school based services to SED/SBD preschool children, birth through five years of age, and their families since 1972. The funding for these services has been provided by the Georgia Department of Education, through state and federal funds, and by local education agencies with local funds.

The purpose of this study was to describe a cohort of SED/SBD students served as preschoolers in 1982-1983, to describe their treatment in 1982-1983, to document their 1987-1988 placements, and to investigate relationships among the demographic, treatment, and placement variables.

## Method

The 169 SED/SBD students on the GPN P.L. 89-313 Transfer List in August of 1983 were stratified by gender, race, and Program. Not more than five (5) children were selected from any one Program to assure geographic distribution throughout Georgia and to reduce the burden of responding to the study. A total of 75 students was randomly selected from the list.

A one page cover letter explaining the need for the study and a one page questionnaire with directions for completion were distributed to the GPN Program directors. The questionnaire was comprised of variables selected as micro-measures and based on prior GPN studies (Ponsell et al., 1987).

## Results

### *Demographic Descriptors of Subjects*

The subjects were 75 SED/SBD children who had been served in a GPN Program for a minimum of 9 months in 1982-1983. The students ranged in age from 3 to 6 years with the vast majority being 5 years of age. There was a 2:1 ratio of males (50) to females (25) and approximately equal numbers of black (34) and white (41) students. The number of students from two parent families (38) was slightly larger than the number from single parent families (27) with the remaining 10 children evenly divided between foster family parents and some other type of family status. The most frequent sources of referral for these students were the Department of Family and Children's Services (18), the parent(s) (15), the Health Department (12), and the school (9). Remaining sources of referral included physicians, private psychologists, mental health/mental retardation programs, and other sources.

Compared to GPN Network-wide data on students from birth to 18 years of age (GPN Research Consortium, 1987), there were more females in this sample, racial proportions were similar, there were more two parent families in this sample, and the referral sources emphasized parents and other sources rather than the schools.

*1982-1983 Treatment Descriptors.*

Of the 75 students, 33 (44%) were served in GPN Program classes, 27 (36%) were served in the home, and the remainder were served in Head Start, private day care programs, and other programs—all with assistance from the GPN Program. Regarding treatment location, twice as many males as females were served in the GPN Program classes and approximately equal numbers of males and females were served in the home. No differences were observed for location of treatment by race or family marital status.

Amount of services descriptors were calculated for those students served in the two most frequent service locations—GPN Program classes (n=33) and home (n=27). The children served in the GPN Program classes received over three times as much intervention by GPN staff (35.2 hours per month vs. 10.9 hours per month) over the 1982-1983 period. Additionally, the children served in the GPN Program classes received 7 more months of total treatment over the years than those children served in the home (31.8 months vs. 24.8 months).

**Table 1**  
*Frequencies of Placement in 1987-1988*  
(n = 75)

Placements in 1987-1988	Frequency	Percent
General Education Classes	27	36.0
Special Education		
Self-Contained Classes	19	25.3
Special Education		
Resource Classes	6	8.0
GPN Program Classes	4	5.3
Day Care	1	1.3
Home	1	1.3
Other	1	1.3
Moved	4	5.3
Unknown	12	16.0
Totals	75	100.0

*1987-1988 Placements*

Table 1 shows the 1987-1988 placements for these 75 students. Fifty-eight (77%) of the students in 1982-1983 were located. Twenty-seven (36%) were in general education classes; 19 (25%) were in special education self-contained classes; 6 (8%) were in special education resource classes; 4 (5%) were in GPN classes; 2 (3%) were in day care or home settings; and 17 (23%) had moved, could not be located (unknown), or some other placement (see Table 1).

**Table 2**  
*Area of Exceptionality for Special Education*  
*Placements in 1987-1988 (n = 29)*

Area of Exceptionality	Frequency	Percent
Mildly Mentally Handicapped	10	34.5
Severely Emotionally Disturbed	7	24.1
Moderately Mentally Handicapped	6	20.7
Behaviorally Disordered	2	6.9
Severely/Profoundly		
Mentally Handicapped	1	3.4
Learning Disabled	1	3.4
Speech Language Disordered	1	3.4
Other	1	3.4
Totals	29	100.0

Proportionately more boys (n = 14) than girls (n = 5) were placed in special education self-contained classes and the reverse was true for special education resource classes (4 girls and 2 boys). No girls and 4 boys were placed in GPN programs. Regarding race, proportionately more blacks (n = 15) than whites (n = 12) were placed in general education classes and proportionately more

**Table 3**  
*Most Frequently Occurring Placements in 1987-1988 by Location of Treatment in 1982-1983 (n = 56)*

Placement in 1987-1988	Location of Treatment in 1982-1983				
	GPN Program	Home	Head Start	Other	Total
General Education Classes	10	11	1	5	27
Special Education Resource Classes	3	3	-	-	6
Special Education Self-Contained Classes	9	4	2	4	19
GPN Program Classes	3	1	-	-	4
<b>Totals</b>	<b>25</b>	<b>19</b>	<b>3</b>	<b>9</b>	<b>56</b>

**Table 4**  
*Mean (and Standard Deviation) Hours Per Month in Treatment in 1982-1983 and Mean (and Standard Deviation) Months in Treatment Over Time for Four Most Frequent Placements in 1987-1988 (n = 56)*

	Four Most Frequent Placements in 1987-1988			
	General Education Class (n=27)	Special Education Resource Class (n=6)	Special Education Self-Contained Class (n=19)	GPN Program Class (n=4)
Hours Per Month in Treatment in 1982-1983	11.93 (9.56)	41.33 (46.90)	34.11 (28.98)	51.25 (40.23)
Months in Treatment Over Time	18.15 (8.97)	38.17 (21.99)	38.84 (23.12)	43.75 (28.19)

whites (n = 13) than blacks (n = 6) were placed in special education self-contained classes. Three whites and one black were placed in GPN programs.

Regarding area of exceptionality in 1987-1988, only 7 of the 29 (24%) students who were being served in special education placements were still labelled as SED and only 2 of the 29 (6.9%) were labelled BD. Six other categories of exceptionality were used to label the remaining 18 students (see Table 2).

#### *Relationships Among the Variables*

A comparison of location of treatment in 1982-1983 to the four most frequent placements in 1987-1988 is shown in Table 3. The students in general education classes and the students



in special education resource classes in 1987-1988 were served approximately equally in GPN Program classes and the home in 1982-1983. The majority of the students in special education self-contained classes and GPN Program classes in 1987-1988 were served primarily in GPN Programs and the home in 1982-1983. The largest number of students in special education placements in 1987-1988 were served in GPN Program classes in 1982-1983.

Using the four most frequent placements in 1987-1988 (general education classes, special education resource classes, special education self-contained classes, and GPN Program classes), comparisons on five demographic and treatment variables were made. Results showed that students served in GPN Program classes were referred 7 months earlier than students in the other three placements specified above (31 months vs. 39 months) and were identified as SED/SBD no less than 9 and up to 14 months earlier than the other three placements (31 months vs. 40 months and 45.8 months). While the months for treatment in 1982-1983 were approximately equal for all four placements in 1987-1988 (range of 7.5 months to 9.3 months), the number of hours of service in 1982-1983 was different by visual inspection as were the months in treatment over time (see Table 4). The number of hours of treatment per month

**Table 5**  
*Correlations for Selected Demographic and Treatment Variables<sup>a</sup>*

	Age in Months at Referral	Age in Months Identified as SED/SBD	Hours/ Months in Treatment in 1982-1983	Months in Treatment 1982-1983	Months in Treatment Total
Age in Months at Referral	1.00 - 75				
Age in Months Identified as SED/SBD	.92* .0001 75	1.00 - 75			
Hours/Months in Treatment in 1982-1983	-.01 .92 74	-.03 .80 74	1.00 - 74		
Months in Treatment in 1982-1983	.37* .001 75	.35* .002 75	-.07 .53 74	1.00 - 75	
Months in Treatment Total	-.10 .39 75	-.15 .20 75	.27* .02 74	.32* .01 75	1.00 - 75

<sup>a</sup>Code: Correlation  
Significance Level  
Sample Size

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was greatest for the students in GPN Program classes (51.25 hours per month) and least for the general education class students (11.93 hours per month) with the hours for the students in special education resource and self contained classes being close to equal. The standard deviations for all three special education placement groups were large. The same pattern was true for the total number of months in treatment for the four groups.

A correlational study was attempted for eight variables in three groups--demographic (two variables), length of treatment (three variables), and achievement (three variables). The last group of variables was not used because the IQ test score data were determined through a variety of instruments which were not directly comparable and the Georgia 4th Grade CRT data were available on only 9 of the 59 children located. There were five significant correlations among the other five variables (see Table 5).

Months in Treatment in 1982-1983 was significantly correlated with both Age in Months at Referral and Age in Months at Which Identified as SED/SBD ( $r = .37, p < .001$ ;  $r = .35, p < .002$ ). Thus, the earlier one was referred and identified, the larger the number of months in treatment. Months in Treatment Over Time (across years) was significantly correlated with both Hours Per Month in Treatment in 1982-1983 and Months of Treatment in 1982-1983 ( $r = .27, p < .02$ ;  $r = .32, p < .01$ ).

## Discussion, Conclusions, and Recommendations

The demographic descriptor differences in terms of gender, race, family status, and referral sources may reflect the unique needs of these students and their families as well as service delivery characteristics for this age group. These differences may be the basis for future investigations, perhaps analyzing the needs of families for services along the continuum of services and through an interagency approach to consider all services.

Regarding treatment descriptors, alternative placements along a continuum of services were used in 1982-1983. While it is assumed that the primary determinant of placement was child and family needs, other considerations, including transportation and philosophy of program, probably impacted on final placement decisions. The continuum of services is also evidenced in the 1987-1988 placements. The continuum of services is consistent with the requirements of P.L. 99-457 (1986) and efforts to mandate services to preschoolers in Georgia must include emphases on providing a continuum of services.

The placement results in 1987-1988 reveal an emphasis on placing students in the least restrictive environment (LRE). Most of the placements for these students in 1987-1988 were less restrictive than the placements in 1982-1983. While the placement results are fairly consistent with prior studies (e.g., Ponsell et al., 1988; Edgar et al. 1984; McNulty et al. 1983), the proportion of students placed in special education self-contained classes is somewhat higher than the other studies; this may be due to the GPN programs serving more SED/SBD students than the other studies. The emphasis on documentation of need and decision making regarding placement, i.e., LRE, must also be included in Georgia's efforts to mandate services to this population.

These results indicate that the more severely handicapped students are placed in GPN Program classes. On the average, students served in GPN Program classes are identified earlier than the students placed in other locations, have higher numbers of service hours and total treatment months than the students in other locations, and are placed in more restrictive set-

tings five years later than students placed in other locations. This is consistent for the GPN Program efforts with school age and adolescent students.

Several recommendations for future studies are generated by these results. First, additional investigation should be focused on the demographic characteristics of these students over time. Some of these characteristics may be valuable predictors for identification; however, the current sample size is too small to provide conclusive results. Second, as Georgia Department of Education rules and regulations are developed, they should encourage the development of a continuum of services with flexibility of placement in different agencies based on student and family needs. This may require that interagency collaboration be emphasized as an effective means of serving these students and their families. The recent action by the Georgia Board of Education approving the significantly developmentally delayed category for preschool (Georgia Board of Education, 1988) is strongly supported by the results of this study. Third, the secondary diagnosis and exceptionality of the preschool handicapped students should be investigated to assess the relationship between these early needs and the later placements. Fourth, the achievement of these students over time should be investigated to determine if early programming and educational experiences impact on later achievement or if there is adequate academic emphasis in the early education programs for these students. This might be achieved through reviewing the Georgia Kindergarten Test, the 3rd Grade Promotion/Retention Test, and the 4th Grade Georgia Criterion Referenced Tests.

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# **A Five Year Follow-up of the 1981-1982 Cohort of Handicapped Preschoolers Served in the GPN**

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*The purposes of this study were to evaluate the educational placement and handicapping condition of 169 graduates of programs for handicapped infants, toddlers, and preschoolers five years after transfer to schoolage programs, to investigate relationships between in-treatment variables and subsequent placement variables, and to provide recommendations for policy makers based on these results. Significant findings included 60% of the students being placed in general education classes and special education resource classes, the area of exceptionality changing for 41 of the 75 students classified as handicapped over the five years, and students classified as BD/SED requiring more months of treatment than those with other handicapping conditions. Recommendations for policy makers include a need for multiple delivery options along the continuum of services, the use of a "noncategorical" label, and planning adequate programs for BD/SED students over longer periods of time.*

The Georgia Department of Education, The Governor of Georgia, and the Georgia General Assembly are currently considering establishing a mandate to provide educational and related services to preschool handicapped students (ages 3 through 4 years of age) consistent with Public Law 99-457 (The Education of the Handicapped Act as amended). If Georgia implements the mandate by 1990-1991, continued financial assistance will be provided by

the federal government; if Georgia does not implement the mandate by 1991-1992, the state will lose all U.S. Department of Education funds for early childhood special education (Sec. 671, P.L. 99-457, 100 STAT. 1145).

While a debate continues regarding the degree and quality of documented impacts of early intervention programs for the handicapped (Casto & Mastropieri, 1986a; Strain & Smith, 1986; Casto & Mastropieri, 1986b; Dunst & Snyner, 1986; Casto & Mastropieri, 1986c), the positive effects of such programs have been demonstrated through program evaluations and research (e.g., Koen, Musumuci, & Toole, 1982; McNulty, Smith & Soper, 1982; Strain, Steele, Ellis, & Timm, 1982). Policy analyses concerning selected aspects of the implementation of such programs and research have also been completed (e.g., Barnett, 1985; Meisels, 1985; Swan, 1984).

One approach to conducting research to guide the State in developing policies for this new law is to evaluate the impact of programs which have been serving handicapped infants, toddlers, preschoolers, and their families in the past. Examining outcome variables which are important to program planners and policy makers assists them in making decisions which will guide future service delivery.

The purposes of this study were to evaluate the educational placement and handicapping condition of graduates of programs for infants, toddlers, and preschoolers five years after transfer to schoolage programs, to investigate relationships between in-treatment variables and subsequent placement variables, and to provide recommendations for program planners and policy makers based on these results.

## Method

### *Service Provider*

The Georgia Psychoeducational Network (GPN) has provided home and program based services to the severely emotionally disturbed/behaviorally disordered (SED/BD) and the handicapped and high risk for SED/BD preschool population, birth through five years of age, and their families since 1972 through a statewide network of 24 regional community-based Programs. Funding for these services has been provided through State and federal sources. Students and their families were served consistent with all State and federal rules and regulations.

### *Data Collection*

A cover letter and a one page questionnaire were distributed to all 24 GPN Program Directors. The cover letter specified the need for the study and the directions and timeline for completing the questionnaire. The questionnaire was comprised of broad macro-measures (e.g., educational placement and handicapping condition five years from graduation) which had educational and statistical significance (Casto & Lewis, 1986) for program planners and policy makers (Edgar, McNulty, Gaetz, & Maddox, 1984).

### *Description of Students in 1980-1981*

The subjects were 169 handicapped infants, toddlers, and preschoolers served and graduated in 1980-1981 by 16 of the GPN Programs. Each child was served for a minimum of

nine months in a Program and was listed on the preschool transfer list when the child was school age and judged ready to participate in home school district programs by the Placement Committee at each Program.

There was a 2:1 ratio of males (114) to females (55), and a 1.67:1 ratio of whites (103) to blacks (66). The number of black females (26) was approximately equal to the number of black males (40), but the number of white males (74) was over two times the number of white females (29).

The number of children from two-parent families (85) was half of the sample, with single-parent families accounting for approximately a third (61) and foster parents and other familial situations (23) accounting for the remaining small proportion. A comparison of race to familial status revealed a 4:1 ratio of white students with two parent families (68) to black students with two parent families (17) and a 1.5:1 ratio of black students with single parent families (39) to white students with single parent families (22). In 1980-81, 56% (95) of these children were served in the home and 43% (72) in the schools along with 1% (2) of the students served in some other location. The handicapping conditions for the children included severely emotionally disturbed/behavior disordered as well as those with other handicapping conditions (speech impaired, mentally handicapped—mild and moderate, other health impaired, multiply handicapped, developmentally delayed, deaf, learning disabled and other) who were also at risk for severe emotional disturbance/behavior disorders.

### *Student Placements and Handicapping Conditions in 1985-1986*

In 1985-1986, these children were followed-up to determine current placement. Of the 169 children, 116 were located (53 had moved or were otherwise unable to be located) in the following placements: 34% (39) were in general education classes, 24% (28) in special education resource classes, 40% (47) in special education self-contained classes, and 2% (2) in other placements. The areas of exceptionality for the children in special education placements (75) included 28% behavior disordered/severely emotionally disturbed, 49% mentally handicapped (mild, moderate and severe), and 23% other handicapping conditions (learning disabled, speech impaired, multiply handicapped, and gifted).

For the located children, ranges, means, and standard deviations for chronological age at entry into treatment, number of months in treatment through 1980-1981, and grade placement in 1985-1986 are provided in Table 1.

**Table 1**

*Ranges, Means, and Standard Deviations for Chronological Age at Entry, Number of Months in Treatment Through 1980-1981, and Grade of Placement in 1985-1986 for Located Students (n = 111)<sup>a</sup>*

Variables	Range	Mean	SD
CA at Entry (in Months)	1-63	38.97	13.26
Months in Treatment Through 1980-1981 <sup>b</sup>	9-96	25.03	17.20
Grade of Placement in 1985-1986	0-5	2.31	1.54

<sup>a</sup> Sample reduced from n = 116 to n = 111 for these variables because of missing data for located students.

<sup>b</sup> The high end of the range is larger than 72 months because several students received treatment past the age of six years (schoolage). These students were included because they were listed on the preschool transfer lists.

### Analytical Procedure

Frequency counts were completed for race, gender, and familial status to assess possible differences between the total group (n = 169) and the located group (n = 116).

Inferential analyses included chi-square analyses for three variables from 1980-1981 and two variables on placement in 1985-1986, and four one-way analyses of variance using months of treatment as the dependent variable.

## Results

### Descriptive Analyses

A comparison of the data for the located sample versus the total group revealed no significant proportional differences on race, gender, or familial status. Most proportional differences between the two groups approximated 5%.

### Inferential Analyses

**Chi-Square Analyses.** Six chi-square analyses were conducted to examine relationships (hypothesis of independence) between three variables from 1980-1981 (handicapping condition, type of treatment, and chronological age at entry) and two variables from 1985-1986 (placement and area of exceptionality). The chi-square analysis between handicapping condition in 1980-1981 and area of exceptionality in 1985-1986 revealed significant differences at the  $p < .03$  level (see Table 2). There were significant changes between the handicapping con-

**Table 2**  
*Comparison of Handicapping Condition for 1980-1981 and Area of Exceptionality for 1985-1986 (n = 114)*

Area of Exceptionality for 1985-1986 <sup>b</sup>	Handicapping Condition for 1980-1981 <sup>a</sup>				
	Other	MH	SI	BD	Total
Other	19	4	9	23	55
MH	9	10	7	12	38
BD/SED	5	1	1	14	21
Total	33	15	17	49	114

$$X^2 = 14.47, p < .03$$

<sup>a</sup> Other included other health impaired, multiply handicapped, developmentally delayed, deaf, learning disabled, and other. MH included mild and moderate mentally handicapped. SI included speech impaired. And BD/SED included behaviorally disordered/severely emotionally disturbed.

<sup>b</sup> Other included no handicap, learning disabled, speech impaired, multiply handicapped and gifted. MH included mild, moderate, and severe mental handicaps. BD/SED included behavior disordered and severely emotionally disturbed.

*Note: In 1985-1986, there were no students classified as other health impaired, developmentally delayed or deaf: all frequencies were very small in 1980-1981. Further, the number of speech impaired students decreased from 17 to 9. Grouping of these data was necessary for ample cell sizes for meaningful analysis.*

dition in 1980-1981 and the area of exceptionality in 1985-1986 – 39 children handicapped in 1980-1981 were in general education programs and had no handicapping classifications; 41 students changed handicapping classifications. For example, of the 49 exceptional children classified as SED/BD in 1980-1981, only 14 were classified as BD/SED in 1985-1986, 12 were classified as mentally handicapped in 1985-1986, and 23 were classified as *other* in 1985-1986. A total of only 6 children shifted to BD/SED from the other categories from 1980-1981 to 1985-1986. (Other handicaps included learning disabled, speech impaired, multiply handicapped, gifted, developmentally delayed, and deaf.) The other chi-square analyses revealed no significant differences.

**One-Way Analyses of Variance (ANOVA).** The ANOVA for the independent variable of handicapping condition in 1980-1981 (other, mentally handicapped, speech impaired, and severely emotionally disturbed) and the dependent variable (number of months in treatment) revealed no significant differences. The overall mean of months in treatment for the whole group was 25.03 months (standard deviation = 17.20 months). The order in terms of number of months in treatment by handicapping condition in 1980-1981 from lowest to highest was speech impaired, other, mentally handicapped, and SED/BD.

The ANOVA for number of months in treatment by the type of treatment (home, school) was significant at the  $p < .003$ . The number of months in treatment for the group served at home was approximately 2/3 of that for the group served at school and the standard deviation was over two times as large for the school group as for the home group (see Table 3).

The ANOVA for the number of months in treatment by placement in 1985-1986 (general education, special education resource, special education self-contained) was significant at the  $p < .07$  level. The order of the means from fewest to most months was general education, special education resource, and special education self-contained (see Table 4) which was consistent with expectations.

The ANOVA for number of months in treatment for areas of exceptionality (other, mentally handicapped, and behavior disordered/severely emotionally disturbed) for 1985-1986 was

**Table 3**

*One-Way Analysis of Variance for Type of Treatment Using Months in Treatment as Dependent Variable (n = 114)*

Variables	Results
F Value	$F_{1,112} = 8.95$
p Value	$p < .003$
Home: Mean;SD	20.37; 9.59
School: Mean;SD	29.68; 21.47

**Table 4**

*One-Way Analysis of Variance for Placement in 1985-1986 Using Months in Treatment as Dependent Variable (n = 114)*

Variables	Results
F Value	$F_{2,111} = 2.70$
p Value	$p < .07$
General Education: Mean;SD	20.26; 12.47
Special Education Resource: Mean;SD	25.00; 15.08
Special Education Self-Contained: Mean; SD	28.81; 20.63



**Table 5**

*One-Way Analysis of Variance for  
Area of Exceptionality in 1985-1986  
Using Months in Treatment as the  
Dependent Variable (n = 114)*

Variables	Results
F Value	$F_{2,111} = 3.50$
p Value	$p < .07$
Other: Mean;SD	22.69; 15.73
MH: Mean;SD	23.58; 14.12
BD/SED: Mean;SD	33.76; 23.14

significant. The significant difference was between the behavior disordered/severely emotionally disturbed group and the other and mentally handicapped groups (see Table 5).

## Discussion

The descriptive data reflect the diversity in this group of handicapped infants, toddlers, and preschoolers and their families in gender, race, familial status, chronological age at entry, months in treatment, and grade placement in 1985-1986. The ranges on the last three variables are large as are the standard deviations. These children and their families appear to be

a cross-section of their community populations.

The placement of these children five years subsequent to graduation from the Programs is generally consistent with other results considering area of exceptionality and severity levels (Edgar, McNulty, Gaetz, & Maddox, 1984; Koen, Musumeci, & Toole, 1982). A significant proportion (1/3) of the children were placed in general education classrooms without supportive help; about 1/4 of the children were placed in special education resource classes. Thus, about 60% of these children were served in environments less restrictive than special education self-contained classes five years subsequent to graduating from a preschool Program.

The area of exceptionality changed for 41 of the 75 children classified as handicapped in 1980-1981 and in 1985-1986 (e.g., BD in 1980-1981 to MH in 1985-1986). These changes might indicate that the children had more than one area of need, that the needs changed over time, that it was difficult to diagnose particular areas of exceptionality, or some combination of these factors. The chi-square analysis revealed that these changes were significant beyond the .05 level providing statistical as well as educational significance to these results. These data suggest that flexibility is needed in providing specialized services to meet the students' varied needs and that expertise in child development in several areas is necessary for personnel serving these children. Further, many of the children who were handicapped and indicated as "at-risk for SED/BD" were so classified five years after graduation.

Based on the descriptive data and the analyses of variance, it is apparent that both home-based and program-based services are important in the continuum of services. The array of alternatives was used and differences in length of treatment were observed to be significant. Perhaps these differences are due to severity level, community-based priorities, availability of other services, degree of parent support, and the like. Further research is necessary to determine the combination of reasons for these placements for preschoolers.

Those children classified as SED/BD in 1980-1981 required significantly more months of treatment than the children with other handicapping conditions. This difference is on the order of one full year of additional services. Based on the changes in area of exceptionality over the five years, early intervention with many of these students allows for amelioration of problems and in many instances recognition of problems in other areas of need—most often related to academic needs.

Additional evaluation and research are needed to investigate these areas in more depth both over different groups, including control and/or comparison groups if possible, and for more than five years. Additional areas for evaluation and research include selection of other more precise outcome measures related to specific intervention programs, linkage of existing outcome measures to present and future development, exploration of relationships among demographic and intervention variables, and continued longitudinal investigation of services, teacher and parent ratings, benefit-cost studies, and the use of control and comparison groups when possible (Barnett, 1985; Beckman & Burke, 1984; Casto & Lewis, 1986; Koen, Musumeci, & Toole, 1982; Schafer, Spalding, & Bell, 1987).

## Recommendations

Based on these evaluative results, several recommendations should be considered by program planners and policy makers. Regarding less restrictive environments and the continuum of services, early intervention with handicapped infants, toddlers, and preschoolers using multiple service delivery options (e.g., home, school, and combinations) should be encouraged and supported. Program flexibility in maximizing the use of all available resources (including the parents and interagency efforts) without duplication, and with additional resources as necessary, is critical to effective and efficient delivery of services. This encouragement and support can most effectively be evidenced by mandatory legislation, reasonable and adequate funding, and reasonable and flexible service delivery policies.

Many of these children had multiple needs as displayed by the changes in area of exceptionality over the five years. Personnel serving these children should have specific assessment and diagnostic skills for the infant, toddler, and preschool groups and should probably be trained in more than one area of exceptionality with significant coursework and experiences in child development. Further, a classification label of "noncategorical handicapped" appears reasonable considering the children's diversity of needs. The categorical strategies used most often by states should be modified to include a generic category with specific definitions called *noncategorical*.

Regarding cost, while serving handicapped infants, toddlers, and preschoolers does require significant resources, early intervention did reduce the needed services for over 60% of these students over a five year period, with 34% being placed in general education classes.

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# Staff Development Needs of Beginning and Experienced Teachers of BD/SED Students – An Initial Study

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*A questionnaire on staff development needs for teachers of behavior disordered/severely emotionally disturbed students (BD/SED) ages birth-14 years was obtained from 31 beginning teachers (three or less years teaching this population) and 13 experienced teachers (more than three years teaching this population). Results are presented in rank order using mean Likert-scale scores for the beginning teachers, the experienced teachers, and the combined groups. Suggestions for delivering staff development experiences to the two groups of teachers based on their common and unique needs are given.*

There is a renewed emphasis in our nation and state concerning teacher and student performance. Coupled with this concern is the realization of the importance of assessing teacher needs and providing teacher preparation. This priority has been reflected in Public Law 94-142 (1975) as amended by Public Law 98-199 (1983) which includes a provision requiring states to develop a comprehensive system of personnel development (CSPD). The Quality Basic Education Act in Georgia (1985) also calls for staff development plans from each local school system and provides the funding to prepare teachers. It is no longer assumed that they come to the job from college finally prepared. The need for continued updating of knowledge and improvement of skills has been recognized and is provided through staff development.

Concurrent with the emphasis on providing additional preparation to enhance competencies, there is a significant teacher shortage in special education (Dr. Joan Jordan, 1987, personal communication) and in particular for teachers of behaviorally disordered (BD) and severely emotionally disturbed (SED) students. The need for these teachers to provide instruction not only in academics but also in facilitating social and emotional growth adds to the complexity of providing adequate preparation to increase competencies.

Several studies have been conducted on the preparation needs of teachers of BD/SED students. Grosenick and Huntze (1982, 1983) studied 204 teachers and 166 administrators and found priority needs in the areas of individual counseling, individual management, group management, motivation techniques, consultative skills with other professionals, vocational/career education, curriculum on social skills, and coping with job stress. While these results indicated little need for continued preparation on Individualized Educational Programs (IEPs), environmental management, or discipline, these areas were of concern to Georgia teachers based on the Comprehensive System of Personnel Development Study (Ensminger, 1987). In another study, Carri (1985) found three major areas of preparation needs for 20 BD teachers--communicating/interacting, assessing/evaluating, and personal/professional growth. He hypothesized that teachers of BD students were more concerned with social-emotional adjustment than academics based on the needs of the students.

The largest number of teacher vacancies in Georgia in 1987-1988 was in the area of BD/SED. Improving the competencies of existing BD/SED teachers is critical in order to maintain them in their current positions. Providing staff development to new teachers is important to keep them in the field with adequate competencies to serve these students. Further, if potential teachers of Georgia's BD/SED students know there is a quality staff development program to meet their needs, it may be easier to recruit new and experienced teachers to serve these students.

The purpose of this study was to provide a rank order listing of staff development topics for beginning BD/SED teachers, for experienced BD/SED teachers, and for the combined group of teachers. These results will be shared with the Georgia Psychoeducational Network, the Georgia Department of Education, and local education agencies to facilitate their development and implementation of local comprehensive plans for staff development.

## Method

### *Sample*

The sample was comprised of teachers from the Georgia Psychoeducational Network (GPN), a statewide network of 24 regional, community-based, day treatment programs. These teachers served SBD/SED students in the birth-14 year age range.

### *Procedure*

Questionnaires were sent to each of the 24 GPN directors with directions to disseminate the questionnaires to teachers who were serving students in the birth-14 year age range.

### *Instrument*

A Likert-scale questionnaire consisting of eighteen descriptors of inservice training topics was developed based on the work of Grosenick and Huntze (1982) and prior GPN open-ended surveys on inservice training. Respondents were instructed to circle a number on a scale of 1 (no need) to 6 (high need) for each item as related to their service needs.

### *Respondents*

Forty-four teachers from the Programs returned the completed questionnaires to the author. The 44 teachers were divided into three groups – Beginning Teachers (teaching experience of 3 years or less,  $n = 31$ ); Experienced Teachers (more than three years of teaching experience,  $n = 13$ ); and the Combined Group (all respondents). These groups were determined to assist in interpreting results and designing staff development programs for the groups. Three descriptors were provided for the respondents – years teaching BD/SED, total years teaching, and certification area (see Table 1). For beginning teachers (3 years or less experience teaching BD/SED students), nine had more than 3 years total teaching experience with two who had 16 or more years of experience. Most of the experienced teachers had over 8 years of total teaching experience and more than 5 years teaching BD/SED students. Only 12 of the 31 beginning teachers had BD certification while 11 of the 13 experienced teachers had BD certification. This may indicate that many teachers, while certified in one area, are pursuing certification in BD while they are teaching these students under provisional or emer-

gency certification. Of the beginning teacher group, 28 of 31 had not yet completed three years of teaching BD/SED students and 19 had less than three years total teaching experience.

## Results

The rankings using mean Likert-scale scores for the beginning teachers, the experienced teachers, and the combined group are provided in Table 2. The order of the rankings is based on the beginning teacher group.

Physical restraint procedures emerged as the first ranked item for the beginning and experienced teachers. Student self-concept, medication, and counseling appeared in the top third for both groups, although in different orders. Beginning teachers reflected a high priority need for training in group management and Developmental Therapy. Both groups also included learning styles, lesson plans, and use of psychological data in the lower rankings. Beginning teachers also ranked state curriculum goals, dealing with stress, and techniques of motivation lower than the other topics.

While it is unknown if the experienced teachers completed this questionnaire based on their current needs or their perceived needs as beginning teachers, the experienced teachers ranked group management, Developmental Therapy, and dealing with stress in the middle third, indicating a lower priority than for the beginning teacher. The means for experienced teachers were generally higher than the means for beginning teachers. It is not possible to determine if this is an artifact of the sample sizes, if the two groups used different bases for rating, or if the two groups differ systematically on needs based on experience.

A second analysis was completed to provide guidance in formulating staff development plans along several content dimensions — techniques, content/curriculum, and personal/information (see Table 3). The data reflect that beginning teachers have higher needs in techniques than in the other two dimensions. Experienced teachers reflected the three content variables of state curriculum goals, social skills, and student's self-concept all in the top third priority. The lowest ranked six items of experienced teachers contain only information items.

**Table 1**  
*Years Teaching BD/SED, Total Years Teaching, and Area of Certification for Beginning Teachers and Experienced Teachers (n = 44)*

Descriptor	Beginning Teachers (n=31)	Experienced Teachers (n=13)
<b>Years Teaching BD/SED</b>		
Less than 1 year	5	
1 Year	14	
2 Years	9	
3 Years	3	
4 Years		2
5 Years		2
6 Years		2
8 Years		6
13 Years		1
<b>Total Years Teaching</b>		
Less than 1 year	5	
1 Year	7	
2 Years	7	
3 Years	3	
4 Years	1	1
5-10 Years	6	8
11-24 Years	1	4
25 Years	1	
<b>Area of Current Certification</b>		
BD	12	11
Other	19	2

**Table 2**  
*Rank Order and Mean Likert-Scale Score for Questionnaire Items for Beginning Teachers, Experienced Teachers, and Combined Group*

Topics	Beginning Teachers (n=31)		Experienced Teachers (n=13)		Combined Group (n=44)	
	Rank	Mean	Rank	Mean	Rank	Mean
Physical Restraint	1	4.51	1	5.15	1	4.70
Group Management	2	4.38	10.5	4.30	3.5	4.36
Developmental Therapy	3	4.35	8.5	4.38	3.5	4.36
Student Self-Concept	4.5	4.22	6.5	4.53	5	5.31
Medication	4.5	4.22	2	4.76	2	4.38
Counseling Strategies	6	4.12	3	4.69	6	4.29
Roles/Functions/Agencies	7	4.09	13	4.07	8.3	4.09
Time Out	8.25	4.00	12	4.23	11	4.06
I.E.P.'S	8.25	4.00	16	3.84	12.3	3.95
Individual Management	8.25	4.00	10.5	4.30	8.3	4.09
Social Skills	8.25	4.00	4.5	4.61	7	4.18
Behaviors BD/SED	12	3.96	15	3.92	12.3	3.95
State Curriculum Goals	13	3.86	4.5	4.61	8.3	4.09
Stress	14	3.77	8.5	4.38	12.3	3.95
Use of Psych. Data	15	3.70	14	4.00	16	3.79
Motivation	16	3.67	6.5	4.53	15	3.93
Lesson Plans	17	3.54	17	3.46	17	3.52
Learning Styles	18	3.29	18	3.38	18	3.31

## Discussion and Conclusions

The top six priority staff development needs of beginning teachers of BD/SED students were physical restraint techniques, group management techniques, Developmental Therapy techniques, student self-concept, medication, and counseling. It is not surprising to observe the emphasis on techniques as compared to the rankings on content/curriculum and personal/information. Management strategies for the group are necessary for students to benefit from instruction.

More information on medication may have been rated 4.5 for beginning teachers and 2 by experienced teachers because beginning teachers often have limited experience in monitoring medications for students. Additionally, recent media attention has focused on medication which may have influenced the high rating of this topic. It is an area, however, that often is not included in any depth in college/university curricula for preparing teachers and yet it is a vital part of the environment today.

The similarities and differences of the six items in common with the Grosenick and Huntze (1982) study are interesting but not surprising. Comparisons revealed that there was agreement for group management and counseling in the top third and individual management in the middle. However, in the Grosenick and Huntze study, social skills and agency roles/func-

tions were in the top third while beginning teachers in Georgia placed these in the middle third. Motivation was ranked in the top third in this study but in the middle in the Grosenick and Huntze study. The rankings of the experienced teachers in the data are more consistent with the Grosenick and Huntze study. This may be because Grosenick and Huntze surveyed a broader spectrum of class assignments for teachers including teachers with mild BD students as well as more severely handicapped students while this study focused more particularly on the more severely handicapped students.

It is important to focus on the needs of teachers who are to receive staff development. While it is traditional for administrators to plan staff development activities, often without teacher input, using teacher perceptions of needs coupled with administrators' perceptions could maximize the value and content of the experiences. These data strongly suggest that there are significant differences in needs between beginning teachers and experienced teachers. While this presents problems in scheduling, school districts could cooperate to offer a program for beginning teachers and one for experienced teachers on a continuing and planned basis.

Additional study to specify staff development needs is necessary. The procedures and instrument in this study could be used with additional topics being added as appropriate. Larger groups are also needed to provide for more valid and reliable results.

**Table 3**  
*Comparison of Rankings by Content Dimension for Beginning Teachers and for Experienced Teachers<sup>a</sup>*

Content Dimensions	Beginning Teachers (n=31)	Experienced Teachers (n=13)
<b>Techniques</b>		
Physical Restraint	1	1
Counseling Strategies	1	1
Group Management	1	2
Developmental Therapy	1	2
Individual Management	2	2
Time-out	2	2
Motivation	3	1
<b>Content/Curriculum</b>		
Student Self-Concept	1	1
Social Skills	2	1
State Curriculum Goals	3	1
<b>Personal/Information</b>		
Medication	1	1
Stress	3	2
Roles/Functions/Agencies	2	3
Use of Psych. Data	3	3
Behaviors BD/SED	2	3
I.E.P.'S	2	3
Lesson Plans	3	3
Learning Styles	3	3

<sup>a</sup>The rankings have been grouped into the top third (1), the middle third (2), and the lower third (3) to assist in drawing conclusions for planning particular inservice experiences.

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### Note

<sup>a</sup>This manuscript is a refinement of a final research project in EDR 893 for an Ed.S. at Georgia Southern College completed by the author.

# Prescribed Medications for SED/SBD Children and Youth in 1987-1988

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*Results are reported on a study of severely emotionally disturbed/severely behaviorally disordered (SED/SBD) children and youth who were served in 1987-1988 by the Georgia Psychoeducational Network and who received prescribed medication. Results indicated that 764 students received medication--approximately 20% of the total number of students served, that preschoolers received very few prescriptions for medication, that five medications (Ritalin, Mellaril, Tofranil, Cylert, and Haldol) accounted for 90% of all single prescriptions, and that only 20% of the students experienced any difficulty in taking prescribed medication. Statistical analyses revealed that there were some differences in prescribed medications by race, by age group, and by level of service for students. Recommendations for continued research as well as increasing knowledge and monitoring of medication regimens are provided.*

## Introduction

The use of prescribed medications with severely emotionally disturbed/severely behaviorally disordered (SED/SBD) students has been a recent focus of concern nationally and in Georgia. According to Rosenberg (1988), it has been estimated that as many as 60% of all special education teachers have some level of involvement with students who receive medications for some aspect of control of behavior problems, and Sprague and Ullmann (as cited in Epstein and Olinger, 1987) indicate that the absolute number of students on medications is large. While Gadow (as cited in Epstein and Olinger, 1987) indicates that most SED/SBD students in the schools do not take any prescribed medications, drug therapy has been described as the most common medical intervention for behavior disordered students (Epstein & Olinger, 1987). In Georgia, the Attention Deficit Disorder Study Group (1987) reflected a general concern about the use of prescribed medications with exceptional students.

There is limited research to provide a data base on the use of medications with exceptional children from a statewide perspective. One group of exceptional children and youth who

might be expected to have a relatively high proportion of prescribed medications is SED/SBD children and youth.

The purpose of this paper is to provide a description of the prescribed medications for SED/SBD children and youth served statewide in the Georgia Psychoeducational Network during 1987-1988 and provide recommendations for continued research and increased knowledge.

## Method

### *Definitions*

The study was conducted within the Georgia Psychoeducational Network (Network), a statewide system of 24 multi-district, interdisciplinary programs (Programs), that provides comprehensive special education and support services to SED/SBD students, ages birth through 21 years, for the 186 local school districts in Georgia. The Network Programs are an integral part of the statewide continuum of services for SED/SBD students, serving as a community-based service delivery alternative between regional psychiatric hospitals and special education self-contained classes, special education resource classes, and general education classes. According to state regulations, a student is eligible for Program services if the primary disability is SED/SBD, such as severe emotional disturbance (e.g., childhood schizophrenia, severe emotional deprivation, or adjustment reactions), severe behavioral disorders (e.g., neurological impairment, autism, cultural deprivation, developmental lag), or severe school related problems (e.g., manifested in behavior, socialization, communication, and academic skills) (Georgia Department of Education Regulations and Procedures, 1988, IDDFd.3.20). Prescribed medications (medications) are those which are prescribed by a physician (e.g., pediatrician, neurologist, psychiatrist).

### *Data Collection*

A one page cover letter and a one page questionnaire were developed and field tested with one Program. The cover letter and questionnaire were revised based on the field testing and were distributed to all 24 Network Program Directors. The cover letter briefly described the study, requested voluntary cooperation emphasizing anonymity for all students using only student identification numbers (Program specific), and requested that one questionnaire be completed on each SED/SBD child or youth for whom medication(s) had been prescribed in 1987-1988.

The questionnaire was composed of Program identification number; student information: date of birth, DSM III diagnosis, gender, race, age group (preschool--3-4 years of age; school-age--5-14 years of age; adolescent--15-18 years of age), level of service (full day program, part day program, services to the school, services to the student, services to parents); and medication(s) information--what medication(s) were prescribed, were the medication(s) being take as recommended/prescribed, and any other relevant information.

### *Subjects*

All 24 Programs responded with questionnaires on 764 SED/SBD students from across the state. The sample was comprised of 646 (85%) males and 118 (15%) females; of 357 (47%)

blacks, 399 (52%) whites, and 8 (1%) other; and of 25 (3%) preschoolers, 555 (73%) school age students, and 184 (24%) adolescent youths.

## Analyses

Descriptive information is provided regarding (1) the demographic characteristics of the sample as compared to the Network demographic characteristics, (2) the frequency of medications, (3) the frequency of single medication by DSM III primary diagnosis, and (4) reasons for children and youth not taking medications as prescribed. Comparative statements are made regarding the frequency of single medications by gender, race, age group, and level of service.

## Results

### *Description*

**Demographic Characteristics.** The number of students reported in this sample (764) is approximately 20% of the total number of SED/SBD students served in therapeutic classes in the Network. The sample was representative of the Network population in terms of gender and race (GPN Research Consortium, 1987). The percent of preschoolers in the sample (3%) was smaller than that in the population (11%); the percent of school age students in the sample (73%) was larger than that in the population (57%); and the percent of adolescents in the sample (24%) was smaller than that in the population (31%) (GPN Research Consortium, 1987).

**Frequency of Medications.** A total of 764 students was reported to have received over 900 prescriptions for medications during the 1987-1988 school year. A total of 632 students received prescriptions for single medications and 132 students received prescriptions for two or more prescriptions. The frequencies of medications are shown in Table 1. The top five medications accounted for over 90% of all the prescriptions for the 632 students--Ritalin/methylphenidate (Ritalin) (56%), Mellaril/thioridazine (Mellaril) (17.2%), Tofranil/imipramine (Tofranil) (7.1%), Cylert (3.8%), and Haldol/halperidol (Haldol) (2.4%). (This article uses trade names, which are marked by a capital, along with generic names which were reported to

**Table 1**

*Frequency of Single Medications Prescribed  
(n = 632 students)*

Prescribed Medication	n	%
Ritalin/Methylphenidate	354	56.0
Mellaril/Thioridazine	109	17.2
Tofranil/Imipramine	45	7.1
Cylert	24	3.8
Haldol/Halperidol	15	2.4
Dexedrine	13	2.1
Dilantin	11	1.7
Tegretol	8	1.3
Thorazine	6	.9
Chlorpromazine	6	.9
Depakote	5	.8
Lithium	5	.8
Other*	31	5.0
<b>Total</b>	<b>632</b>	<b>100.0</b>

\*"Other" includes 23 medications (e.g., Benedryl, Phenobarbitol, Elavil, Cogentin, Stelazine, etc.) which were prescribed for 4 or fewer children and youth.

facilitate communication of the more commonly known medications.) Using the categories listed most recently by Epstein and Olinger (1987), two of the top five medications are stimulants (Ritalin and Cylert), two are antipsychotics (Mellaril and Haldol), and one is an antidepressant (Tofranil).

The most common multiple prescriptions were for ritalin-mellaril (13), ritalin-tofranil (7), mellaril-tofranil (7), and ritalin-tegretol (5). Because of the array of multiple medications and the low frequencies of the combinations as well as some single medications, the remaining analyses focused on the 547 students who received one of the five most frequently used single medications. The demographic characteristics of the group of 547 students were representative of the overall group of 764 students.

**Frequency of Medications by DSM III Classifications.** The five medications which accounted for 90% of the medications for the 547 students were compared to their DSM III primary diagnoses using 12 DSM III primary diagnostic groupings developed by The GPN Research Consortium (1987, p. 33). Table 2 presents these results. Four DSM III primary diagnostic groupings accounted for the large portion of the 547 students--adjustment disorders, conduct disorders, attention deficits, and pervasive developmental disorders/autism. A comparison to Network-wide diagnostic classifications (Consortium, 1987, p. 33) revealed that the proportions of students with medications was lower than Network demographics for adjustment disorders (16.6% vs. 23.4%) and conduct disorders (11.20% vs. 16.7%), higher than Network demographics for attention deficits (34.4% vs. 16%) and pervasive developmental disorders and autism (11.9% vs. 8%), and approximately equal for all other category groupings.

**Table 2**  
*Single Prescribed Medications by DSM III Primary Classification Grouping<sup>a</sup> (n = 547 students)*

	Rit	Mel	Tof	Cyl	Hal	Total
Adjustment Disorders	61	8	20	2	-	91
Conduct Disorders	44	11	2	4	-	61
Attention Deficit Disorders	158	8	10	12	-	188
Pervasive Developmental Disorders & Autism	24	33	-	-	8	65
Personality Disorders	6	10	1	1	-	18
Affective-Mood Disorders	8	6	6	-	-	20
Avoidance Disorders	15	2	1	1	1	20
Mental Retardation	9	5	1	-	-	15
Psychosis	6	12	1	-	3	22
Developmental Learning Disorders	7	1	-	-	-	8
Organic Disorders	1	2	1	-	2	6
Missing Diagnosis						33
<b>Totals<sup>b</sup></b>	<b>339</b>	<b>98</b>	<b>43</b>	<b>20</b>	<b>14</b>	<b>547</b>

<sup>a</sup>For this and remaining tables, Rit = Ritalin/Methylphenidate, Mel = Mellaril/Thioridazine, Tof = Tofranil/Imipramine, Cyl = Cylert, Hal = Haldol/Halperidol.

<sup>b</sup>These totals do not correspond with the totals by medication in Table 1 because the diagnosis was missing for 33 students.

**Reasons for Not Taking Medication(s).** Of the 764 students in the sample, approximately 80% had no difficulty in taking medication. Of the 20% who did have difficulty taking medication as prescribed, about 15% received medication inconsistently because of parental fears, child/youth refusal to take medication at home, or parental refusal to give the medication as prescribed; 1% of the children/youth refused to take the medication periodically; 1% of the children/youth were withdrawn from medication; and the remainder had other varied reasons for not taking the medications as prescribed.

### Comparative Post Hoc Analyses

Four comparative post hoc analyses were completed using contingency tables--frequency of medications for the five medications accounting for 90% of prescriptions (Ritalin, Mellaril, Tofranil, Cylert, and Haldol) vs. gender, race, age group, and level of service. These analyses were exploratory in nature and used chi-square to test the hypothesis of relationship among the variables (independence) (Ferguson, 1966).

Table 3 presents the data regarding medications by gender. Visual inspection revealed that ritalin was prescribed for a slightly higher proportion of males than females but this difference was not significant. Thus, there were no significant differences for medications by gender.

Table 4 presents the data regarding medications by race. While the data for Other are included to present complete information, these data were not used for analysis because of very low cell frequencies. The test of independence between race and medications resulted in  $X^2 = 18.96$  which was significant beyond the  $p < .01$  level. A review of the results indicated that blacks received a higher proportion of prescriptions for Mellaril and Haldol while whites received a higher proportion of prescriptions for Tofranil and Cylert. The proportions of prescriptions for Ritalin were equally distributed for the blacks and whites.

Table 5 presents the data regarding medications by age group--preschool (3-4), school age (5-14), adolescent (15-18). There were very few preschoolers for whom medication had been prescribed. This finding is significant and reflects the reluctance of physicians to prescribe any medication for very young children. The data for preschoolers were not included in further

**Table 3**

#### Single Medications by Gender (n = 547)

Prescribed Medication	Male	Female	Total
Ritalin	314	40	354
Mellaril	98	11	109
Tofranil	39	6	45
Cylert	19	5	24
Haldol	14	1	15
Totals	484	63	547

$$X^2 = 2.76 \text{ (Not Significant; } X^2_{4,10} = 7.78)$$

**Table 4**

#### Single Medications by Race (n = 547)

Prescribed Medication	Black	White	Other	Total
Ritalin	165	186	3	354
Mellaril	60	48	1	109
Tofranil	11	33	1	45
Cylert	7	17	-	24
Haldol	11	4	-	15
Totals	254	288	5	547

$$X^2 = 18.96 \text{ (Significant; } X^2_{4,01} = 13.28) \text{ (Analyses did not include Other because of small cell frequencies.)}$$

**Table 5**  
*Single Prescribed Medications by Age Group (n = 547)*

Prescribed Medication	Pre School	Adol- School Age	escent	Total
Ritalin	14	296	44	354
Mellaril	4	75	30	109
Tofranil	-	31	14	45
Cylert	2	16	6	24
Haldol	-	10	5	15
Totals	20	428	99	547

$X^2 = 21.80$  (Significant;  $X^2_{4,.01} = 13.28$ ) (Analysis did not include Preschool data because of small cell frequencies.)

**Table 6**  
*Single Prescribed Medications by Level of Service (n = 547)*

Medication	Part Day	Full Day	Total
Ritalin	139	215	354
Mellaril	12	97	109
Tofranil	18	27	45
Cylert	12	12	24
Haldol	3	12	15
Totals	184	363	547

$X^2 = 34.97$  (Significant;  $X^2_{4,.01} = 13.28$ )

medications for preschool students is very low which is consistent with the general consensus that medications should be prescribed for very young children with extreme caution.

The array of 33 medications is very large; however, the variance among SED/SBD students is also very large. Five medications did account for 90% of the total prescribed and Ritalin did account for 56% of these prescriptions followed by Mellaril. Over 2/3 of the prescribed medications were for SED/SBD students who were described as adjustment disorders, conduct disorders, attention deficit disorders, pervasive developmental disorders and autism. This result is probably due to the need to reduce some of the overt behaviors which would characterize these groups of children.

The higher proportion of medications for Mellaril and Haldol for black students and for Tofranil and Cylert for white students needs further investigation. While the analysis was significant, the number of students receiving these medications was smaller than the number

analyses for Table 5 because of the very low cell sizes. The test of independence of medication by age group resulted in a  $X^2 = 21.80$  which was significant beyond the  $p < .01$  level. A review of these results indicated that school age children received proportionately more prescriptions for Ritalin while adolescents received more prescriptions for Mellaril and Tofranil.

Table 6 presents the data regarding medications by level of service for students--either part day classes (3 segments or less) or full day classes (4 segments or more). The test of independence resulted in a  $X^2 = 34.97$  which was significant beyond the  $p < .01$  level. A review of the results indicated that part day students received significantly more prescriptions for Ritalin and full day students received significantly more prescriptions for Mellaril.

## Discussion/ Recommendations

The number of SED/SBD students for whom medications were prescribed is approximately 20%; considering the literature regarding prescribed medications, this proportion is low for this group of students. The proportion of

receiving Ritalin in which blacks and whites were approximately equal in prescriptions. The differences may be attributable to potency of medication, age of the student, degree of threatening/aggressive behavior, and projected ability of the family to monitor dosage and behavior effectively.

The higher proportion of Ritalin prescribed for school age students and the higher proportions of Mellaril and Tofranil for adolescent students may indicate that these medications are more appropriate for the age groups specified, that depression may be a secondary diagnosis, that it is more effective to take one dose per day rather than three per day, that there are additional medications to be considered, that potency of medication may be important as it relates to threatening/aggressive behavior, or other factors. The higher proportion of part day students receiving Ritalin and the higher proportion of full day students receiving Mellaril may indicate a concern with potency of medication for certain groups of students, the severity of the behaviors involved, and age of student.

Future research should include additional examination of related variables regarding the differences identified: number of adults in the home able to monitor medication; cooperation and communication among parents, physicians, educators, and other professionals concerning the prescription and monitoring of medications with SED/SBD students; monitoring the impact of selected medications on the behavior of selected groups of students; and other statewide studies on the frequency of use of medications with other exceptional students. Additional study should also be focused on students (n = 132) who are receiving multiple medications and who were not included in this study.

All educators and related services personnel serving SED/SBD students should become more informed about prescribed medications and work effectively with parents, physicians, and other related services personnel to assure that medication regimens are implemented consistently, monitored, and revised as needed to assure the provision of quality education to exceptional students.

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# A Comparison of Teacher Perceptions of BD/SED Student Behaviors in Three Placements – A Pilot Study

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*Three groups of severely emotionally disturbed (SED) and behaviorally disordered (BD) students were studied in terms of teacher perceptions of their behaviors using the Achenbach Child Behavior Checklist (Teacher Report Version). Results indicated significant differences in the Internalizing scale score for the three groups with the SED students being rated highest and the BD and SED/BD students being rated fairly closely together but lower than the SED students. The results on the Externalizing scale did not indicate significance but the direction of the results was consistent with the SED students being highest followed by the SED/BD and the BD students in their respective settings. Recommendations for continuing this direction of inquiry are provided.*

Few studies have been published comparing the behavior of behavior disordered (BD) students to seriously emotionally disturbed (SED) students in their respective educational placements. In Georgia, students who meet the eligibility criteria for BD are generally served in resource, part day, or full day programs in the local public schools; students who meet the eligibility criteria for SED are generally served in a Psychoeducational Program in either half-day or full day programs. Psychoeducational programs generally serve the students who have more serious, more frequent, and/or more intense behavioral/emotional problems. In Georgia BD and SED reflect differences in level of severity and not different definitions.

Several studies have compared BD students or SED students to other groups. For example, Gallico (1986) found that emotionally disturbed students obtained significantly higher scores on a self-destructive subscale of the Achenbach Child Behavior Checklist than the learning disabled group. Flournoy (1985) studied hearing impaired children and hearing impaired children with behavior disorders using the Achenbach to examine their behavior. Shechtman (1971), using the Achenbach, demonstrated that a group of disturbed black children had significantly more problem behaviors than a group of normally functioning black children. And Paulauskas (1983), studying depressed subjects and a psychiatric control group, was able to distinguish between the two groups on the Internalizing factor and the clinically derived Depression Index of the Achenbach.

The purpose of this study was to determine whether students served in three settings (SED students served full day in Psychoeducational Programs; SED/BD students served half time in Psychoeducational Programs and half time in special education and regular classes; and BD students served in special education resource classes) demonstrated significantly different amounts of behavior problems through their teachers' perceptions using the Achenbach Child Behavior Checklist--Teacher's Report Form (TRF). Specifically, it was hypothesized that the three groups/settings scores would vary significantly on the Internalizing Area and the Exter-

nalizing Area of the Achenbach with the SED students having significantly higher scores than the SED/BD students and the SED/BD students having significantly higher scores than the BD students for both areas.

## Method

### *Sample*

The sample was comprised of 43 boys ranging in age from 6 to 11 years in grades K-4 from a city and county school system in South Georgia—31 BD boys served in resource classes, 5 boys served in Psychoeducational Programs and BD resource classes, and 7 boys served in self-contained classes at a Psychoeducational Program. All of the boys in the three settings in the school systems who were SED or BD in this age range were included in the study. This sample of boys was used for two reasons. First, SED/BD boys outnumber girls by a 4:1 ratio (Georgia Psychoeducational Network Research Consortium, 1987); second, the Achenbach has particular scales for this sex and age group

### *Instrumentation and Data Collection*

The Achenbach Child Behavior Checklist—Teacher's Report Form (TRF) is an instrument that provides teacher rating scales for problem behaviors. The data from the Achenbach are concrete and suitable for therapy purposes (writing IEP objectives and lesson plans). The Teacher's Report Form (Boys Aged 6-11) includes two major areas on the Behavior Problem Scale. The Internalizing Area is comprised of two factors—Anxious and Social Withdrawal—which are representative of children with an emotional basis for their problems. The Externalizing Area is comprised of three factors—Inattentive, Nervous-Overactive, and Aggressive—and is representative of children with acting out problems. The test-retest reliability for the TRF is .90 for a one week interval and .84 for a fifteen day interval for all scales. The two- and four-month stability estimates are .74 and .68 respectively for the 6-11 year old boys group (Achenbach & Edelbrock, 1986).

Regarding content validity of the TRF, 1100 students referred for services for social or emotional problems were compared with 1100 demographically similar nonreferred students. The referred students obtained significantly higher scores ( $p < .005$ ) on all TRF items except one (Achenbach & Edelbrock, 1986, p. 41).

### *Procedure*

The teachers who participated in this study taught either BD students or SED students. The BD teachers for students in grades K-4 were from either a small city school system or a county school system in the same southwest Georgia county. Each special education director convened his staff in January, 1987 to receive instructions for the study. Instructions included the purposes of the study, brief instruction on how to use the Achenbach emphasizing using the teachers' perspectives as they observed the students in their classrooms, completing the instrument on students served in a group situation with three or more students, and completing the Achenbach on each student within a time limit of six weeks.

The teachers of SED students were from the Psychoeducational Program serving students in the same county. These teachers had received instructions on the completion of the Achen-

back in the fall of 1986 as a part of staff development. They completed the Achenbach on their students at about the same time as the teachers of the BD students.

The completed Achenbach TRF protocols were hand scored by the senior author following the manual directions explicitly. The senior author then rechecked all calculations for accuracy. As a final check to assure accuracy, the protocol scores were then reviewed by the junior author.

The scores used for the SED and BD groups were the ratings by the teachers on the instrument. There was a third group of students who were placed part time in BD classes and part time in SED classes at the Psychoeducational Program. Two sets of scores — one for each of the student's teachers—both BD and SED — were obtained for this SED/BD group. A correlated (dependent) *t*-test was used to analyze differences between the two teachers for these five students. The analysis for the differences on the Internalizing Area resulted in a  $t = 1.00$  which was not significant at the .05 level — thus, the two groups of teachers rated these five students consistently on this variable. A similar analysis for the Externalizing Area was conducted resulting in a  $t = 2.58$  which was not significant at the .05 level — thus, the two groups of teachers rated these five students consistently on the Externalizing Area. Considering these results, the mean score for each student across both teachers was used as the variable to conduct the analyses.

## Results

### *Internalizing Area*

The first null hypothesis indicated no significant differences among the three groups (BD, SED/BD, and SED) on the Internalizing Area. A one-way analysis of variance with three groups was conducted for the Internalizing Area scores. The resulting statistic ( $F_{2,40} = 4.45$ ) was significant beyond the .05 level indicating significant differences among the three groups (see Table 1).

Interpretation of the results required consideration of the ranges, means, and standard deviations for the Internalizing Area (see Table 2). As indicated, the SED group was rated highest (mean = 64.0) with the BD and SED/BD groups/settings rated closely together but lower (means of 54.0 and 56.8 respectively). This result is consistent with the hypothesized relationship.

To further investigate this relationship, the Anxious and Socially Withdrawn factors of the Internalizing Area were examined. As indicated the order of the results for both factors was consistent with the order for the Internalizing Area with the Socially Withdrawn factor revealing greater mean differences on visual inspection than the Anxious factor (see Table 2). These

**Table 1**  
*Results of Analysis of Variance for BD, SED/BD, and SED Students on Internalizing Area of Achenbach*

Source	DF	SS	MS	F
Between	2	579.0	289.52	4.45*
Within	40	2601.77	65.04	
Total	42	3180.80		

\* $F_{2,40,.05} = 3.23$

results suggest that the SED students had more significant emotional problems than the BD and SED/BD students which is consistent with the placement of these groups of students.

### Externalizing Area

The second null hypothesis indicated no significant differences among the three groups on the Externalizing Area of the Achenbach. A one-way analysis of variance with three groups was conducted using the Externalizing Area score. The resulting statistic ( $F_{2,40} = 2.12$ ) was not significant at the .05 level indicating no significant differences among the three groups (see Table 3).

Consistent with the analysis of variance results, visual inspection of the ranges, means, and standard deviations for the Externalizing Area indicated minimal differences among the three groups (see Table 4). Further inspection of the other factor scores—Inattentive, Nervous-Overactive, and Aggressive—showed similar results. However, the direction for all results indicated that the SED students were rated highest followed by the SED/BD students followed by the BD students.

**Table 2**  
*Ranges, Means, and Standard Deviations for BD, SED/BD, and SED Students for Internalizing Area and Two Factors (Anxious and Socially Withdrawn)*

	BD (n=31)	SED/BD (n=5)	SED (n=7)
<b>Internalizing Area</b>			
Range	42-74	50-62	55-77
Mean	54.0	56.8	64.0
Standard Deviation	8.1	4.5	8.0
<b>Anxious Scale Factor</b>			
Range	55-82	55-57	55-70
Mean	57.0	55.4	61.1
Standard Deviation	5.4	.8	6.3
<b>Socially Withdrawn Factor</b>			
Range	55-82	56-68	63-79
Mean	59.8	63.4	69.0
Standard Deviation	6.9	4.6	6.3

**Table 3**  
*Results of Analysis of Variance for BD, SED/BD, and SED Students on Externalizing Area of the Achenbach*

Source	DF	SS	MS	F*
Between	2	194.50	97.25	2.12
Within	40	1834.63	45.87	
Total	42	2029.13		

\*NS,  $F_{2,40,.05} = 3.23$

## Discussion, Conclusions, and Recommendations

The results indicated that there were differences in teachers' perceptions of students' behavior according to the three groups/settings. The statistically significant results for the Internalizing Area indicated that the SED students had more significant anxious and socially withdrawn behavior than students in SED/BD and BD settings alone. These results suggest

**Table 4**  
*Ranges, Means, and Standard Deviations for the BD, SED/BD, and SED Students for Externalizing Area and Three Factors (Inattentive, Nervous-Overactive, and Aggressive)*

	BD (n=31)	SED/BD (n=5)	SED (n=7)
<b>Externalizing Area</b>			
Range	49-87	59-68	61-77
Mean	61.0	63.4	66.7
Standard Deviation	7.1	3.0	5.6
<b>Inattentive Factor</b>			
Range	55-83	55-70	55-83
Mean	62.1	63.7	65.1
Standard Deviation	7.6	5.0	8.6
<b>Nervous-Overactive Factor</b>			
Range	55-82	55-65	55-82
Mean	60.9	60.0	64.5
Standard Deviation	7.0	3.8	8.9
<b>Aggressive Factor</b>			
Range	55-90	55-72	59-71
Mean	60.9	63.6	66.4
Standard Deviation	7.4	5.6	4.7

that the SED students were more seriously impaired, e.g., more clinically withdrawn or anxious, than the students in the BD and SED/BD settings.

The Externalizing Area results indicated that there were no significant differences among the groups. However, the direction of the means for the three groups was consistent with the results on the Internalizing Area. It may be appropriate to examine the clinical norms of the Achenbach to further analyze the significance of these directional results in both areas.

The results of this preliminary investigation suggest that differences among the three groups of students do exist. Additional studies using similar methodology with increased sample sizes appear warranted.

Specific recommendations include investigating those students in full day and those in part day placements in Psychoeducational Programs; studying adolescents in

addition to the age group of 6-11 year old boys to determine any differential impacts based on age; studying females as well as males; pairing the use of the Achenbach with a needs assessment for teacher competencies (e.g., behavior management) in selected areas for improvement through staff development; and correlating student achievement and student long term placement in varied settings with the Internalizing and Externalizing Area scores prior to initial placement in a special education program.

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# Demographic Descriptors of GPN Students — 1986-1987

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*A 31 item questionnaire was completed on each DSM III diagnosed severely emotionally disturbed/severely behaviorally disordered student served in FY 1987 (n = 4209). The results indicated that a student was likely to be male, live with one or two parents, and had never had a sibling who had received Network services. Slightly over half of the students were nine years old or younger with ages ranging from birth through 21 years and grade in school ranging from preschool to grade 12. The schools were the most frequent source of referral and most students were in public schools. About 1/3 of the students were in regular classes and 41% were in special education self-contained classes or resource classes at the time of referral. Almost 50% of the students were served in full day classes with an additional 37% served in part day classes. When students exited the Program, 23% were placed in regular classes, 20% in special education self-contained classes, and 17% in special education resource classes. The average number of months in treatment was 24 months and the range was from 1 to 3 months to over 49 months. Comparisons with data from FY 1985 and FY 1986 are provided to indicate trends.*

Comprehensive demographic descriptions of statewide populations of severely emotionally disturbed/severely behaviorally disordered (SED/SBD) students are useful to provide a perspective of the types of children and youth served. These data assist in planning for provision of services, including the need for personnel, on a continuing basis. Such data can also provide valuable information for focusing of screening and identification efforts in school districts for particular types of students to be served.

The 24 Programs comprising the Georgia Psychoeducational Network (GPN) serve over 4200 SED/SBD students from birth through 21 years of age in therapeutic classes annually. The GPN is unique in the nation and provides an opportunity for presenting data on all these students served during a given year. Demographic descriptors have been provided for students in 1984-1985 and 1985-1986 (Consortium, 1987). The purpose of this study was to provide descriptors on the DSM III diagnosed SED/SBD students served in FY 1987 (1986-1987) in the GPN.

## Method

The demographic descriptors were obtained from each of the 24 GPN Programs through the completion of a 31-item questionnaire for each DSM III diagnosed SED/SBD student who

**Table 1**

*Family Status of SED/SBD Students Served in FY 1987 (n = 4209)*

Family Status	n	%
Single Parent	1727	41.03
Both Parents	1862	44.24
Foster Care	217	5.16
Other	403	9.57
Total	4209	

**Table 2**

*Siblings of Students in FY 1987 Receiving GPN Services (n = 4209)*

Number of Siblings	n	%
0	3915	93.01
1	261	6.20
2	23	.55
3 or more	10	.24
Total	4209	

received services during FY 1987 (7/1/86-6/30/87). Responses were received from 23 of the 24 Programs.

## Results

The results for the descriptors are presented along with a brief statement comparing these results to those for prior years (FY 1985 and FY 1986). A total of 4209 DSM III diagnosed SED/SBD students was served in therapeutic classes during 1986-1987. This is consistent with the number of students served in FY 1986. Of the 4209 students served, 80% were male and 20% were female; 42.9% were black with 56.5% white and .6% other. These results are consistent with the results of prior years.

### *Family and Siblings*

The families of these SED/SBD students were evenly divided between single parent and both parents in the home. Single parents comprised the home situation of 41.03% of the students and two-parent families were found in the home life of 44.24% of the students (See Table 1). The remaining 14.73% of the students resided in either foster care homes or were not living with either parent.

The great majority of students, 93.01%, never had a sibling who had received service in a GPN Program (See Table 2). A small number of students (6.20%) had one sibling who was previously or currently enrolled in a GPN Program, and less than 1% had either 2 or more siblings who had received GPN Program services.

These results are very consistent with the results from FY 1985 and FY 1986.

### *Age and Grade at Entry*

The majority of students (56.02%) entered GPN Programs when they were age 9 or younger (See Table 3). However, as indicated in Table 3, entry into GPN Programs was not focused on any specific age group. The number of students who entered at ages 3 through 5 continued to be in the 200 to 300 range and the number who entered between the ages of 6 and 15 years continued to be about equally distributed at every age. The increase in the 3-5 age group was approximately .5% per year as compared with FY 1986 data. The entrance figures for the under age 5 and over age 15 were less than 7.5% for each age.

The grade a student was in at the time of entry into a Program reflected a consistent pattern (See Table 4). Preschoolers continued to comprise the largest single grade although this includes children from birth through 4 years. Looking at the number and percent of students



who entered a Program in grades K through 9 in Table 4, it was apparent that there was no single grade of entry that dominated. However, over one-half (54.20%) of the students entered before they completed 3rd grade. This figure is consistent with the data from Table 3 where a similar proportion of students entering treatment were 9 years old or younger.

### *Referral Data*

Almost three-fourths of the SED/SBD students were referred to GPN Programs by their school, with referral by parents accounting for only about 8% of referrals (See Table 5). As Table 5 reflects, relatively few students were referred by other sources such as the Department of Family and Children's Services (DFCS), private physicians, or health departments.

At the time of referral, about 78% of the students were in public schools and about 1% were in private schools. The remaining 21% were either in other institutions when referred or were not enrolled in any educational program. The number of students not in school increased from 9.0% in FY 1986 to 15% in FY 1987 (See Table 6).

About 41% of the students treated in FY 1987 were in special education classrooms (either self-contained or resource) at time of referral to GPN Programs (see Table 7). Almost 33% of the students referred were in regular classrooms at the time of referral — an increase of 5% from the FY 1986 data. The remainder were being served by a variety of sources such as Head Start, regional hospitals, or other GPN Programs (See Table 7). Considering the FY 1985 and FY 1986 data, it is clear that the proportion of students referred from regular classrooms is increasing and the proportion from special education classrooms — both self-contained and resource — is decreasing.

### *Program Services*

The FY 1987 results indicate that approximately one-half of the students continued to receive services at a main program location with the remaining number being served at out-post or satellite locations provided by each Program.

**Table 3**  
*Chronological Age of Students Served in  
FY-1987 at Program Entry*

Age at Entry	n	%	Cum%
Birth+	28	.67	.67
1	47	1.12	1.78
2	135	3.21	4.99
3	250	5.94	10.93
4	278	6.60	17.53
5	311	7.39	24.92
6	358	8.51	33.43
7	328	7.79	41.22
8	304	7.22	48.44
9	319	7.58	56.02
10	337	8.01	64.03
11	325	7.72	71.75
12	276	6.56	78.31
13	244	5.80	84.11
14	280	6.65	90.76
15	209	4.97	95.72
16	118	2.80	98.53
17	44	1.05	99.57
18	12	.29	99.86
19	5	.12	99.98
20	1	.02	100.00
<b>Total</b>	<b>4209</b>		

**Table 4**  
*Grade of Students Served in FY 1987 at  
 Time of Entry into Program (n = 4209)*

Grade at Entry	n	%
PRE	726	17.25
KG	421	10.00
1	467	11.10
2	311	7.39
3	356	8.46
4	344	8.17
5	310	7.37
6	260	6.18
7	274	6.51
8	234	5.56
9	206	4.89
10	65	1.54
11	26	.62
12	6	.14
Other	203	4.82
<b>Total</b>	<b>4209</b>	

**Table 5**  
*Referral Source for Students Served in FY  
 1987 (n = 4209)*

Referral Source	n	%
School	3066	72.84
Parent	338	8.03
Physician	122	2.90
Priv. Psychol.	35	.83
Mental Health	83	1.97
MR Center	31	.74
DFCS	120	2.85
Health Dept.	68	1.62
Juv. Court	8	.19
Other	338	8.03
<b>Total</b>	<b>4209</b>	

The particular GPN age group in which the SED/SBD students were enrolled is shown in Table 8. The pre-school program, primarily designed for 3- and 4-year olds, had 403 students, a decrease of about 1.5% from FY 1986; the school age program had 2609 students, an increase of 1.7% from FY 1986; and the adolescent program had 1183 students, a number equal to that of FY 1986. It continues to be apparent from further examination of the data that a few students were not placed in an age group program strictly according to age but in the age group program in which they could most effectively be served. For example, the data indicate that it is not uncommon to find an 11-year-old in an adolescent program or a 5-year-old in a preschool program.

Most of the services to these students were provided by the GPN Programs through therapeutic classes, either full day or part day. Full day services were provided for almost 49% of the students with part day services for over 37%. Only 14% of the students were served in other direct ways (See Table 9). The full day services increased almost 4.5% over the FY 1986 data; the part day services were 2.8% lower than the FY 1986 data; and the other direct services were a decrease of 1.5% from FY 1986 data and 7% from the FY 1985 data. These data perhaps reflect the continuing focus of the GPN to serve the most severely disordered students who require more intensive services.

Of those students in part day placements, 36% spent the rest of their school day in special education

resource rooms with 13% in special education self-contained and 23% in regular education classes. Nearly all students were served in public schools.

### *Program Exit*

During FY 1987, the number of students exiting the program was 1513 which was slightly higher than the number exiting in FY 1986. All three types of exit—circumstantial, provisional, and final—continued to be represented in the findings (See Table 10) with the circumstantial terminations increasing slightly over FY 1986 levels. The overall number continued to be 400 fewer than FY 1985. The placement of these exited students is shown in Table 11.

Approximately 36.5% were placed in special education classes (either self-contained or resource) with the next most common placement (23.5%) being in regular education classes. The proportion returning to special education-self contained classes (19.70%) is higher than in FY 1986 (14.5%); the proportion returning to regular education classes (23.46%) is higher than in FY 1986 (17.6%); and the proportion returning to special education resource classes (16.72%) is lower than the FY 1986 data (22.0%).

About 5% of the students were placed in more restrictive settings, e.g., youth development centers, regional hospitals, private residential facilities. The proportion of students exiting for other reasons (e.g., moved, withdrawn, etc.) remained at slightly over 30%.

Of the adolescents who left GPN Programs, 37% graduated from high school. Many of the students moved from the area of their Program and their subsequent status is unknown. However, nearly 13% were employed and 7% were enrolled in further schooling, usually vocational education. Approximately 10% were

**Table 6**

### *School Placement at Referral Time for Students Served in FY 1987 (n = 4209)*

Referral Placement	n	%
Public School	3292	78.21
Private School	39	.93
Not in School	626	14.87
Other	252	5.99
<b>Total</b>	<b>4209</b>	

**Table 7**

### *Placement at Referral Time for Students Served in FY 1987 (n = 4209)*

Placement at Referral	n	%
Regular Class	1377	32.72
Sp.Ed. Self-Cont.	696	16.54
Sp.Ed. Resource	1058	25.14
YDC	4	.10
Head Start	64	1.52
Regional Hospital	44	1.05
Other GPN Prog.	99	2.35
State School	7	.17
Private Residential	49	1.16
Mental Health	7	.17
Out of School	346	8.22
Other	458	10.88
<b>Total</b>	<b>4209</b>	

**Table 8**

### *Age Group Program Placement for Students Served in FY 1987 (n = 4195<sup>a</sup>)*

Age Group Program	n	%
Preschool (3-4)	403	9.91
School Age (5-14)	2609	61.99
Adolescent (15-18+)	1183	28.11
<b>Total</b>	<b>4195</b>	

<sup>a</sup> Data were unavailable on this variable for 14 students.

**Table 9**  
*Primary Services for Students Served in FY 1987 (n = 4209)*

Primary Service	n	%
Full Day	2057	48.87
Part Day	1566	37.21
School Only	186	4.42
Parent Only	54	1.28
Child Only	346	8.22
<b>Total</b>	<b>4209</b>	

**Table 10**  
*Program Exit for Students Served in FY 1987 (n = 1513)*

Exit Type	n	%
Circumstantial	647	43.31
Provisional	431	29.54
Final	425	28.15
<b>Total</b>	<b>1513</b>	

**Table 11**  
*Placement at Program Exit for Students Served in FY 1987 (n = 1513)*

Exit Placement	n	%
Regular Classes	355	23.46
Sp.Ed. Self-Contained	298	19.70
Sp.Ed. Resource	253	16.72
YDC	40	2.64
Regional Hospital	15	.99
Private Residential	30	1.98
Withdrawn from GPN Program	117	7.73
Moved From Area	211	13.95
Other	115	7.60
Unknown	79	5.22
<b>Total</b>	<b>1513</b>	

placed in more restrictive settings including Mental Retardation Service Centers, other specialized residential placements, or the court system.

### *Length of Time in Program Services*

The total length of time students had been enrolled in GPN Programs to the end of FY 1987 is shown in Table 12. Visual inspection of these data indicate that there is no particular length of time for receiving GPN Program services that is characteristic of SED/SBD students. The median service time was approximately 17 months and the average (mean) time of receiving services was longer, approximately 23 months.

### *Primary DSM III Diagnoses*

The summary of students' primary DSM III diagnoses is provided in Table 13 using the diagnostic groupings devised in 1986 (Consortium, 1987, p. 33). These groupings provide a reasonable way to review the particular diagnoses for large numbers of students. The largest groupings were for adjustment disorders (24.64%), conduct disorders (15.13%), and attention deficit disorders (14.85%). While these results are consistent with those from FY 1986 and FY 1985, slight increases/decreases (1-2%) were noted for adjustment disorders, conduct disorders, attention deficit disorders, personality disorders, and avoidance disorders (see Table 13).

## Summary

It is very difficult to generalize results across groups of SED/SBD students. The overall group comprises only 0.5% of the population and the variance along most dimensions is extreme. However, the trends across years for selected variables do reveal areas of change. The trends across the following variables are consistent for FY 1987 compared with prior years: number of students served, gender, race, family status, siblings in program, age at entry, grade at entry, referral source, placement at time of referral, GPN age group, public school placement, circumstantial terminations, and length of time in treatment. Changes in trends occurred in the following areas: (1) The proportion of students referred from regular classrooms is increasing and the proportion from special education classrooms—both self-contained and resource—is decreasing; (2) Full day services are increasing and part day and other services are decreasing; and (3) The proportion of students returning to special education self-contained classes and regular education classes is increasing while the proportion returning to special education resource classes is decreasing.

Some of these changes in trends are due to the GPN Programs receiving more severely handicapped students requiring more intensive services, e.g., full day classes. Another possible contributor seems to be a reduction of available personnel to serve students in BD resource classes in the schools which eliminates one option in the continuum of services. This suggests a

**Table 12**

*Total Length of Time Enrolled In Network Program for Students Served in FY 1987 (n = 4209)*

Enrollment in Months	n	%
0-3	345	8.20
4-6	367	8.72
7-9	462	10.98
10-12	405	9.62
13-15	330	7.84
16-18	332	7.89
19-21	276	6.56
22-24	194	4.61
25-27	174	4.13
28-30	147	3.49
31-33	144	3.42
34-36	135	3.21
37-48	380	9.03
49 or more	518	12.31
Total	4209	

**Table 13**

*DSM III Diagnostic Groupings for Students Served in FY 1987 (n = 3882<sup>a</sup>)*

Category	n	%
Adjustment Disorders	1037	24.64
Conduct Disorders	637	15.13
Attention Deficits	625	14.85
Pervasive Developmental Disorders and Autism	344	8.17
Personality Disorders	165	3.92
Affective-Mood Disorders	225	5.35
Avoidance Disorders	186	4.42
Mental Retardation	186	4.42
Psychosis	157	3.73
Developmental Learning Problems	149	3.54
Organic Mental Disorders	36	.86
Diagnosis Deferred	135	3.11
Total	3882	

<sup>a</sup>Data were not available on primary diagnosis for 327 students.

clear need for colleges and universities to train additional personnel as well as for school systems to consider alternative staffing arrangements to assist BD teachers in staying in the classrooms.

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# The Dalton Emotional Severity Index — An Interim Report on Development

George Andros

*Child and Adolescent Psychoeducational Program*

*The history of the development of the Dalton Emotional Severity Index (DESI) is described. The content validity of the 17 items in the Background Information and Current Status is provided. The reliability studies of the DESI revealed moderate to high percents of agreement (medians ranging from 80% to 86% agreement) across 21 raters. Recommendations for future studies and for use of the existing instrument are provided.*

The identification of severely emotionally disturbed (SED) children is critical to these children receiving the appropriate services they so desperately need. Recognizing the time and expense that the referral process takes for a potential exceptional youngster, there is a need to assist interested parents and professionals in referring SED students for appropriate services as effectively and efficiently as possible.

In Georgia, the primary service for SED students is through the Georgia Psychoeducational Network, a statewide system of 24 multi-district, interdisciplinary, community based, non-residential programs (Programs) that provide comprehensive special education and support services to SED students, ages birth through 21 years, for the 186 local school districts in Georgia. The GPN Programs are an integral part of the statewide continuum of services for SED students serving as an alternative between regional psychiatric hospitals and special education self-contained classes, special education resource classes, and general education classes.

Recognizing the need for a screening instrument of this type, the Dalton Emotional Severity Index (DESI) has been developed. The purposes of this paper are to share information on the content validity and initial reliability estimates and to provide directions for continued development and use of the DESI.

## History of Development

The DESI is an instrument designed to identify SED children and youth. The specification of items for the DESI began by an examination of the case histories of over 200 youngsters who had been referred to the Child and Adolescent Psychoeducational Program in Dalton, Georgia, between 1975 and 1985 and a review of the related literature in this area. The purpose of this review was to identify the characteristics and traits which were most frequently associated with the most apparent severely disturbed youngsters. A synthesis of this information resulted in the specification of 16 items grouped into two areas — Background Information and Current Status. This synthesis was then reviewed by psychologists, child psychiatrists, and educators who helped define the items with categorical anchor points. Throughout the process, emphasis was placed on selecting items that were observable, unambiguous, and quantifiable. As a result, several characteristics and traits often associated with emotional distur-

bance (e.g., stress in early childhood, exposure to multiple caregivers, and differing discipline styles in different settings) were not included. Figure 1 presents the DESI.

## Content Validity

The content validity for each of the 16 items in the DESI is described within the two areas of Background Information and Current Status.

### *Background Information*

**Birth History.** The birth history may reflect central nervous system damage or injury which might manifest itself through subsequent emotional problems. A healthy central nervous system enhances ego development. Mobility, perception, concept formation, and language are factors that contribute to the initial phases of ego development as indicated by Rappaport (cited in Rhodes & Paul, 1978).

**Medication.** Medication is often used by physicians to change behavior. This may be used as an end in itself or to provide the opportunity for more traditional therapies to be used. Medication, or drug therapy; usually is categorized in one of three forms: stimulant, antidepressant, or antipsychotic.

**Physical Abuse.** The effect of physical abuse on the emotional well-being of youngsters has been well documented. Emotional symptoms include anxiety or fearfulness, emotional unresponsiveness, expression of negative and self-destructive feelings, low self-esteem, extreme introversion or extroversion, depression, and emotional desensitization (National Center on Child Abuse and Neglect, 1978).

**Treatment for Emotional Problems.** Severe emotional disturbance is sometimes treated through inpatient services and hospitalization. A history of inpatient services or hospitalization likely reveals that a youngster had a serious, if not severe, emotional problem.

**Court Involvement.** The existence of an emotional illness may elicit behavior that is in conflict with the law. Examples of such behavior include over-aggressiveness, non-compliance with rules, poor school attendance, and problems with authority.

**Suicide.** Very often, feelings of loneliness, helplessness or hopelessness prevail prior to or during suicide attempts (Fredericks & Laguee, 1972).

**Mental Illness in Immediate/Extended Family.** An individual is more likely to experience mental illness if other family members experience a mental disorder (Cassidy, 1972). This may be due to environmental and/or genetic factors. Research on schizophrenia has often compared the occurrence of schizophrenia in identical and fraternal twins and adoptive vs. biological families. Both types of research have supported, at least, a genetic predisposition for schizophrenia (Shore, 1986).

### *Current Status*

**Severity of Illness.** Severity of illness, pervasiveness of symptomatology, and duration of symptoms equate with the depth, degree, and duration analysis of emotional conflict as described by Mary M. Wood (University of Georgia).

**Anxiety State.** In a psychodynamic explanation of emotional disturbance, an anxiety state reflects a dissonance or incongruity between competing forces. It is this anxiety that serves as an impetus for behavior change.



# Dalton Emotional Severity Index (DESI)

Ages 6-18

Person Rated: \_\_\_\_\_ Birthdate: \_\_\_\_/\_\_\_\_/\_\_\_\_ Rater: \_\_\_\_/\_\_\_\_/\_\_\_\_ Relationship To Person Rated: \_\_\_\_\_ Rating Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Scoring: Part I: \_\_\_\_\_ + Part II: \_\_\_\_\_ = Total Score \_\_\_\_\_

Directions: Rate each item 1, 2, 3, or 4 by circling the group of words that most accurately describes the person being rated. Omit rating an item when you have no information about the person being rated on that item.

	1	2	3	4
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## Part I: Background Information

	1	2	3	4
<b>1. Birth History</b>	Normal	Some concern, but no medical attention or extended hospitalization required	Some medical attention required and/or hospitalization up to two weeks	Significant medical attention required and/or hospitalization of more than two weeks
<b>2. Medication</b>	None	Medication not related to psychological problems	Medication for seizures, attention deficit disorder with or without hyperactivity	Antipsychotic, antidepressant, or sedative medication
<b>3. Physical Abuse</b>	None/Not Reported	Mild	Moderate and requiring out-patient medical attention and/or agency intervention	Severe and requiring hospitalization and agency intervention
<b>4. Treatment for Emotional Problems</b>	None/Not Reported	Short term out-patient treatment or counseling	Single short-term hospitalization	Extended or multiple hospitalization
<b>5. Court Involvement</b>	None/Not Reported	Once	Twice	More than twice
<b>6. Suicide Attempts</b>	No history	Talked about once	Talked about often	Documented attempt
<b>7. Mental Illness in Immediate/Extended Family</b>	None/Not Reported	Short term out-patient counseling	Single short-term hospitalization for psychiatric condition	Extended or multiple hospitalization for psychiatric condition

Part I Score: \_\_\_\_\_ (Sum Of Values For All 7 Items - Minimum = 0; Maximum = 28)

	1	2	3	4
<b>Part II: Current Status</b>				
<b>1. Severity of Illness*</b>				
No psychiatric problem	● Emotional reaction to known stress within 3 months and not severe	● Persistent problem with inter-personal relationships, dealing with authority and/or appropriately expressed feelings	● Psychotic condition (hallucinations, delusions, confused thinking)	
Very little anxiety or tension	● Adjustment Disorder	● Conduct disorder with remorse and guilt	● Autism	
Usually positive	Periodic anxiety dealt with and contained	● Depression	Constant anxiety that interferes with daily functioning	
Very limited	Problem evident once per month but resolved	● Anxiety disorder greater than 3 months	Continuous problem and unresolved	
One month or less	Observed at school or at home	● School phobia (anxiety)	Observed at school, at home, and in community	
Grade level in math and sight reading	Situational and less than one year	Constant anxiety which does not interfere with daily functioning	Longstanding and greater than 2 years	
Appropriate for age	One or less years behind in sight reading or math	Problem evident more than once per month but resolved	Greater than 2 years behind in math or sight reading	
Mutual, trusting relationships most of time	Occasional disorder of thoughts	Observed at school and at home	Most of language is unintelligible or echolalic (repeats) or mutism (no real intent to communicate)	
None	Occasional withdrawal from others while under obvious stress	Extended and 1-2 years	Much of time is spent alone and withdrawn but can't show affection, relatedness	
Appropriate	One of sleeping, eating or eliminating	1-2 years behind in math and sight reading	All three—sleeping, eating, and eliminating	
Appropriate	Glancing and intermittent	Considerable language disorder but with attempt to communicate	Relatively none voluntarily or after requested	
<b>10. Eye Contact</b>				

PART II (\*Multiply rating on Item #1 by 2): \_\_\_\_\_ (Sum Of Values For All 10 Items — Minimum = 10; Maximum = 44)

**Parent/Child Interaction.** Parent and child interaction has been identified as a central determinant for the behavior pattern of youngsters. Becker (as cited in Kaufman, 1977) concluded that parental discipline, if imposed in a hostile and punitive manner, led to highly aggressive and non-compliant children. On the other hand, parents who used warm and permissive discipline had socially outgoing, creative, and minimally aggressive children.

**Pervasiveness of Symptomatology.** The breadth of behavioral symptoms is an important indicator of the significance of an emotional problem. The broader a set of symptoms, the more significant is the emotional problem.

**Duration of Symptoms.** The length of time over which symptoms are evidenced is a key indicator of the significance of an emotional problem. The longer symptoms have been evidenced, the more severe is the emotional problem.

**Math and Sight Reading.** Research has linked underachievement with SED/SBD youngsters. Cullinan, Epstein, and Wills (1983) report studies that indicate from 33 to 80% of youngsters with behavior disorders suffer from academic underachievement. Motto and Wilkins (1968) found academic underachievement in 42 of 48 youngsters in mental hospitals when academic achievement was compared to both chronological and mental age. The two areas of math and sight reading were selected to provide adequate coverage of the age groups concerned and because these skills are basic to achieving in other subject matter areas.

**Language or Speech.** Closely associated with math and sight reading are deficiencies in language and speech. Severe disturbances may take the form of echolalia and mutism.

**Relationship to Others.** Social withdrawal and an inability to establish meaningful interpersonal relationships with others have been identified as symptoms of emotional conflict. Greenwood, Walker and Hops (as cited in Cullinan, 1983) described such youngsters as either not able to begin and keep a social relationship (noninteractive) or able to initiate a social relationship but in a way that turns off others (rejected).

**Biological Dysfunction.** Problems with sleeping, eating, and eliminating are widely accepted symptoms of emotional stress (Kaufman, 1977).

**Eye Contact.** Eye contact is a widely accepted indication of communication which is often associated with self concept.

## Reliability Study

Three fictitious, narrative case histories were developed to assist in assessing the reliability of the items and the instrument. Information contained in the case histories was representative of background information and current functioning levels of SED students served in the Child and Adolescent Psychoeducational Program.

Raters in the study represented a wide range of educational levels and experience. The educational levels ranged from a high school diploma to the doctoral degree. College graduates had degrees in special education (behavior disorders), counseling, psychology, or sociology. All raters were employed by the Program at the time of the study. Experience in this and similar programs ranged from 3 to 18 years.

A criterion rating on the DESI was made by the author for each of the items for each case history. This was the basis for assessing the ratings of the 21 persons for reliability purposes. Because the DESI is domain-referenced to particular items considered critical to determining screening results for severely emotionally disturbed children from 6-18 years of age, reliability estimates were provided by stating the percentage of agreement for the two subtest scores, the

**Table 1**  
*Reliability Estimates Summary for the DESI (n = 21 raters)*

<b>Case Histories</b>				
	Mark	Kim	Paul	Total
n	21	21	21	21
<b>Background Information</b>				
Range	43-100	86-100	57-100	43-100
Median	86	100	86	86
<b>Current Status</b>				
Range	70-100	60-90	70-100	60-100
Median	80	70	90	80
<b>Total</b>				
Range	71-94	71-94	71-100	71-100
Median	82	82	94	82

total score, and across the items for all three case histories (Borg & Gall, 1983, p. 290-291). The 21 raters were given the three case histories (two pages of narrative information each) and asked to complete the DESI on each. Each rater worked independently and without time restrictions. The average time required for rating each case history was 15 minutes. Table 1 contains the results of the reliability study. The percent of agreement with the criterion for the Background Information area of the three case histories for the 21 raters ranged from 43% to 100% with a median of 86%. The range for the Current Status area for the 21 raters was 60% to 100% with a median of 80%. For the Total (the Background Information and the Current Status combined), the range was from 71% to 100% agreement with the criterion with a median of 82%.

An analysis of items revealed that while most items were consistently rated, there were several items on which inconsistencies in ratings occurred for two or more of the case studies for the Background Information area (Birth History, Medication, and Treatment for Emotional Problems) and for the Current Status area (Severity of Illness, Anxiety State, and Relating to Others). A set of written directions will be developed to resolve these limitations and enhance the reliability estimates.

## **Summary, Recommendations for Future Study, and Recommendations for Use of the DESI**

The reliability estimates are in the moderate to high range indicating that the DESI has potential for development. The written directions will enhance these reliability estimates to the high range consistently for all items and the instrument as a whole.

Future study of the DESI might include additional reliability studies with existing case files for actual application, cross validation with other similar devices such as the Quay-Peterson Check List and the Achenbach Scales, and validity studies for specific groups of SED/SBD students, BD students, and non-handicapped students to determine if the instrument discriminates one group from the other.

Results from these further studies could assist professionals and lay people in using this instrument with more precision to identify and refer SED students to appropriate treatment programs. At the current time, since there are no other validity estimates with other groups, the instrument can be used as a way to structure clinical judgement in assessing the severity of a child's emotional problems.

Those interested in pursuing further studies with this instrument should contact the author for further information.

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# NOTES

## GUIDELINES FOR AUTHORS

The GPN RESEARCH REPORT invites manuscripts concerned with any research aspect of Program operations for severely emotionally disturbed or severely behaviorally disordered students in Georgia. In order to be considered for publication, manuscripts must report or interpret some aspect of data-based scientific finding or practical experience that leads to improved understanding of SED/SBD students or educational programs for these students.

*AGREEMENTS: To be considered for review, a manuscript must meet the following prerequisites:*

1. It is not being considered concurrently by another publisher.
2. The author assumes responsibility for publication clearance in the event that the manuscript was presented at a professional meeting of another organization or was developed for a project funded by a funding agency.
3. The manuscript has not been published in substantial part in another journal or published work.

*REQUIREMENTS: In preparing manuscripts for publication, authors must use the following guidelines:*

1. Manuscripts should be well organized and concise. Historical data common to dissertations should be limited. The readers of the GPN RESEARCH REPORT use the studies and therefore research findings should be specific, concrete, and gleaned from the method and procedures. Implications for the practitioner should be discussed in light of the findings.
2. Manuscript length may vary according to the subject. However, those most adaptable to space available are between 8 and 15 double spaced pages.
3. A brief abstract of 80-125 words should accompany the manuscript. It should be a clear and succinct statement of the treatment, method, and conclusion.
4. Complete author information should be given on a cover sheet: full name, title or position, institution, city, state, and address with zip code. Grant numbers and funding information should be included when appropriate. The author's name should appear nowhere on the manuscript.
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6. All material must be double spaced, including quotations and references. Wide margins should be left for editorial work.
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8. Submit a master copy of the manuscript plus 4 additional copies to: William W. Swan/Carvin L. Brown, Editors, GPN RESEARCH REPORT, G-10 Aderhold Hall, The University of Georgia, Athens, GA, 30602.
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