

*School Based
Approaches*



Chapter 3

Chapter 3: School Based Approaches

Symposium: Special Education Services and Interagency Systems of Care in California

Symposium Introduction

This symposium features empirical results deriving from the collaborations between integrated systems of care and special education services from a set of California counties that are striving to create innovative systems of care for youth with severe emotional disturbance. Working with the education system to provide services to youth who have mental health and special educational needs is a core goal of these, and many other, integrated systems of care. However, relatively little empirical literature addresses the impacts of integrated systems of care on the referral and treatment of youth requiring special education services.

The two papers included in this summary of the symposium are focused on the referral process. The first paper discusses the impact of implementing a system of care on the numbers and characteristics of youth referred to special education. The second paper provides data on the characteristics of youth enrolled in collaborative mental health and educational programs. Together, these reports provide information regarding the impact of creating an integrated system of care on referral patterns to special education and on the characteristics of the children who ultimately enter special education programs nested within broader systems of care. A special emphasis of the second paper is on the relationships between measures of clinical status and measures of educational achievement. The papers raise questions regarding the impact of a system of care on identification rates and on how youth within these systems are referred into special education programs.

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Opening the Floodgates? The Influence of a System of Care on Referrals to Special Education

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Author Note. *This study was completed as part of the evaluation of Santa Barbara County's Multiagency Integrated System of Care (MISC). MISC is funded by a grant (No. 6 HS5 SM51592-01) from the Center for Mental Health Services, a principal operating component of the Substance Abuse Mental Health Services Administration, within the U.S. Department of Health and Human Services. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Center for Mental Health Services or Santa Barbara County.*

Introduction

Identification rates of students with serious emotional disturbances (SED) differ dramatically across states, ranging from a high of 2.08% to a low of .04% (52:1 difference) with a national average rate of just 1% of total student enrollment (U.S. Department of Education, 1994). According to Forness, Kavale, and Lopez (1993), this national rate represents less than half of the estimated youths with emotional disorders who could benefit from special education and related services. They suggested that at least 2 to 3% of school-age children and adolescents should be served under the SED category. The wide disparity between national estimates of SED incidence and actual identification rates leads to questions about its cause. Some researchers suggest that the disparate rates are due to states' unique reporting practices and service provisions (Coutinho & Denny, 1996); some propose that the problem rests with an ambiguous and overly strict SED definition originally articulated in federal legislation (Forness & Knitzer, 1992). It may also be suggested that schools might be reluctant to identify youths with SED due to their potentially high educational placement costs.

These factors have undoubtedly influenced SED identification since the implementation of Public Law 94-142 (1975), but recent developments have sparked renewed interest in the identification of youths for special education due to emotional disturbance. Among these developments has been research aimed at understanding the difference between state's identification and placement rates of youths with SED (Oswald &

Symposium: California's Special Education Services and Systems

Coutinho, 1995), changes in the Individuals with Disabilities Education Act (IDEA, PL 102-119), and the increasing implementation of collaborative systems of care that use more liberal, mental health-based definitions of emotional and behavioral disorders. Thus, it is quite timely to examine issues related to special education SED, particularly in communities engaged in cross-agency service delivery.

Early federal and state guidelines established to identify children and adolescents as SED are vague and lack clear descriptive qualities. Although PL 102-119 has eliminated the term "serious" from the SED category, it has retained the core elements of the original definition set forth in IDEA. Schools may place youths in special education programs unless their difficulties are found to be caused solely by social maladjustment (SM). Due to the vagueness of the terminology within the SED federal definition, professionals have debated its utility and integrity. The SM exclusionary clause is particularly problematic for researchers and school personnel due to its subjective and arbitrary nature (Forness et al., 1993; Rosenblatt & Furlong, 1997). This "loophole" within the law is not adequately defined and causes much confusion in practice when school personnel and mental health practitioners must differentiate SM from SED in order to legally and ethically deliver special education services.

Collaboration between schools and mental health services has been regarded as one way to facilitate the early and accurate identification of youths with SED. However, schools are obligated to provide appropriate education to all youths, and concerns that systems of care may unduly overwhelm the special education system with a flood of new referrals without appropriate support are understandable. Although the principles and guiding philosophy of collaborative systems are laudable, it is important to consider how their implementation impacts all community partners.

The purpose of this paper is to examine the rates of SED identification in one community operating a system of care to determine the service system's influence on special education referrals. The historical pattern of SED identification in the community, child and family risk factors of children served, and behavioral and emotional indicators are examined to address the growing concerns of local school districts regarding service delivery and shared accountability to SED students and their families.

Method

Setting. This study was conducted in Santa Barbara County, a coastal community of 390,000 that includes both urban and rural populations. Approximately 86,000 children live in the county and are identified as 52% Caucasian, 40% Latino (specifically Mexican and Central American), 5% Asian/Pacific Islander, and 3% African-American (Damery, Furlong, Casas, & Corral, 1997).

Santa Barbara County was one of 30 sites nationwide to receive a federal grant from the Center for Mental Health Services to develop and evaluate a Multiagency Integrated System of Care (MISC) serving youths with SED and their families. MISC coordinates services among family members, County Mental Health, Probation, Child Protective Services, Public Health, non-profit organizations, and public schools to provide a research-driven, family-focused, comprehensive continuum of community-based services.

Participants. The participants in this study were 41 children and adolescents identified as SED in accordance with state and federal special education definitions. All participants were receiving services from the Multiagency Integrated System of Care (MISC) in Santa Barbara County and were enrolled in public or private schools in the state. The students participated in part-time or full-time special education classrooms or were included in regular education classes.

The students were organized into three naturally occurring groups based on the timing of their SED identification and their enrollment into MISC: (1) *Post-MISC Direct-Influence* ($n = 11$): youths identified as SED after at least three months of participation in MISC; (2) *Post-MISC Indirect-Influence* ($n = 20$): youths identified as SED at least three months prior to MISC participation but after system of care was implemented in the community; and (3) *Pre-MISC No Influence* ($n = 10$): youths identified as SED prior to the implementation of the system of care and presumably representing those traditionally served by special education programs without collaborative influences.

Data Collection. Descriptive data including demographics, risk factors and behavioral consequences were gathered by trained social workers, probation officers, public health nurses, and mental health personnel within the context of a comprehensive assessment for each MISC participant. The standardized instrument used to measure clinical outcomes for the present study is presented below.

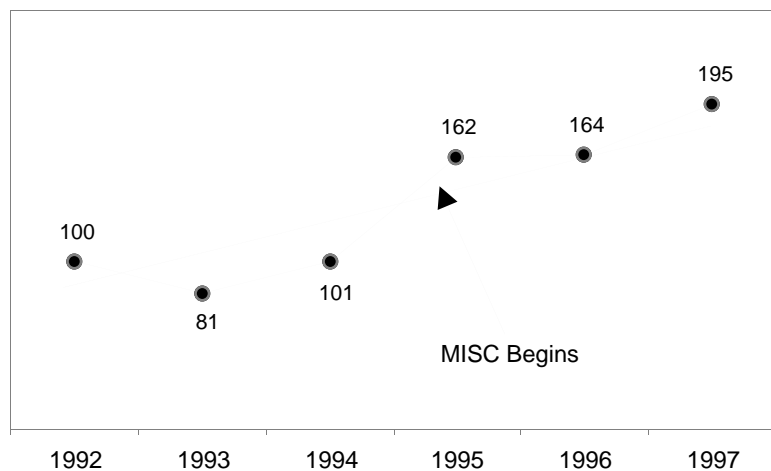
Child Behavior Checklist (CBCL). A general index of recent problem behaviors as perceived by the youth's caregiver was obtained using the *Child Behavior Checklist* (Achenbach, 1991). The CBCL is comprised of eight syndrome scales and three summary scale scores. The *Internalizing* index is a summary score derived from the *Withdrawn*, *Somatic Complaints*, and *Anxious/Depressed* scales; the *Externalizing* index is derived from the *Delinquent Behavior* and *Aggressive Behavior* scales; and the *Total Problem Scale* index is derived from a summary of all of the syndrome scales.

Results

Seeking to understand the context in which SED identification in Santa Barbara County may have been influenced by system of care implementation, SED placement rates were examined in a sample of California counties. A review of 23 counties showed an overall increase in SED identification rates from 1992 to 1996, but these increases were slight and relatively stable. The few exceptions involved: (a) counties involved in system of care programs (e.g., Napa, Butte, and Sonoma); (b) one county which was committed to system of care service delivery and subsequently awarded a federal grant (San Diego); and (c) one rural county well-known for its disproportionate number of residential programs (Shasta). The overall change in the rate of SED identification in Santa Barbara was 0.8 per 1000, which was among the largest increases among California's total 58 counties.

In the three years prior to MISC implementation (1992 to 1994), 100, 81, and 101 youths, respectively, were found eligible for special education services due to SED in Santa Barbara County (see Figure 1). In 1992, this represented just 0.18% of the total school population. In the three years after MISC (1995 to 1997), the number of children identified as SED increased to 195

Figure 1
Number of School Identified Youths with SED in Santa Barbara County



Symposium: California's Special Education Services and Systems

(Damery et al., 1997) representing 0.26% of the total student population or a 44.4% increase.

To investigate differences among the three referral groups, child and family risk factors and behavioral and emotional indicators were examined (see Table 2). What was most striking in these data was that there were clear differences among the groups across descriptive and risk factors. The *Post-MISC Indirect-Influence* group was significantly younger than either of the other two groups, but they had general profiles similar to the *Pre-MISC No Influence* group. In this sense, the schools appear to have been fairly consistent in whom they served and identified for special education. In contrast, the *Post-MISC-Direct Influence* group had a distinct profile. These youths were the oldest,

suggesting that their need for special education services had gone unrecognized or were addressed by other programs. They had the highest number of child and family risk factors, a pattern suggestive of extensive and multiple needs. The most striking finding is that 46% of these youths had a prior history of suicide attempts compared to none of the youths in the *Pre-MISC No Influence* group.

Youths' presenting behaviors and emotions as viewed by their caregivers were also examined. As shown in Table 3, only the CBCL *Somatic Complaints* scale showed a significant difference. Mean *Total Problem T*-scores were within the clinical range for all three groups; therefore, caregivers believed that all of these youths had serious service delivery needs at intake.

Table 1
Number per 100 of Students Eligible Education Under SED Category
by Selected California Countries, 1992-1996

Country	1992	1993	1994	1995	1996	D
Alameda	3.3	3.3	3.6	3.7	3.4	0.1
Butte	1.2	1.5	2.1	2.2	2.2	1.0
Contra Costa	3.7	3.9	4.0	4.0	3.9	0.2
Fresno	0.6	0.6	0.7	0.7	0.9	0.3
Kern	0.6	0.6	0.7	0.7	0.7	0.1
Los Angeles	3.7	4.0	4.0	4.3	4.4	0.7
Marin	7.9	6.6	7.6	7.5	7.9	0.0
Mendocino	3.1	4.1	6.4	10.1	9.1	0.6
Monterey	1.4	1.8	1.4	1.5	1.4	0.0
Napa	4.4	3.3	3.6	5.2	7.7	3.3
Orange	1.0	1.0	1.0	1.1	1.2	0.2
Riverside	3.1	3.4	3.6	3.8	3.4	0.3
Sacramento	5.0	5.6	5.3	5.8	5.7	0.7
San Bernardino	2.1	2.2	2.2	2.2	2.2	0.1
San Diego	3.7	4.0	4.2	4.6	4.7	1.0
San Luis Obispo	3.1	3.0	4.1	4.2	3.8	0.7
San Mateo	3.4	3.7	3.4	3.6	3.6	0.2
Santa Barbara	1.8	1.4	1.7	2.7	2.6	0.8
Santa Clara	2.1	2.1	2.1	2.1	2.3	0.2
Santa Cruz	1.7	1.8	1.9	2.1	1.8	0.1
Sonoma	3.5	4.3	4.3	4.9	4.7	1.2
Shasta	2.6	3.0	3.3	3.9	3.9	1.3
Ventura	3.9	3.6	3.4	4.4	4.4	0.5

Note: D is the change from 1991 to 1996 (1991 minus 1996).

Discussion

Nationwide, systems of care that coordinate community social services, juvenile justice, and educational programs have been supported through federal and state initiatives, yet these endeavors often must confront the sometimes polemic views local educators and mental health professionals have about who should receive SED services. For example, youths who present with externalizing behaviors such as drug abuse or juvenile justice involvement may be referred by mental health practitioners but deemed ineligible for special education by school administrators due to social maladjustment. How systems of care can share accountability and coordinate services for students with emotional and behavioral disorders and their families with the cooperation of local schools is often a challenge to effective service delivery.

Educators in Santa Barbara County were astonished to find that the number of SED identifications rose over 44% after the implementation of MISC. Other factors they proposed to explain the rise in SED identification included: the emergence of several group homes in the community; the Probation Department returning students from out-of-county placements because of the broader continuum of services available; and increased parent advocacy in the identification process. Furthermore, MISC may have identified previously underserved

students because of the program’s emphasis on cultural competence and comprehensive care.

This study may be limited by the fact that participants were drawn from one county in California, a state with one of the lowest SED identification rates— about 0.3% of the school-aged population (U.S. Department of Education, 1994). However, Santa Barbara provides exceptional services for youths with SED and their families through the MISC program, and it may serve as an example of the challenges and benefits of implementing a system of care program within local communities.

Table 2
Psychosocial History Variables by Relationship Between SED Eligibility Decision and Initial Opening Into MISC System of Care Program

Variable	Post MISC	Post MISC	Pre MISC
	Direct Influence (n = 11)	Indirect Influence (n = 20)	No Influence (n = 10)
Age ^a	15.1(1.8)	11.4(3.08)	14.4(2.1)*
Male	82%	70%	90% <i>ns</i>
Race/Ethnicity			
White	55%	50%	60% <i>ns</i>
African American	09%	10%	10%
Hispanic	36%	40%	30% <i>ns</i>
Child Risk Factors	03.4(2.1)	01.3(1.2)	00.9(1.1)*
Psychiatric hospital	64%	05%	11%
Physical abuse	64%	28%	30%
Sexual abuse	20%	33%	00%
Runaway	64%	25%	38%
Suicide attempt	46%	25%	00%
Drug abuse	73%	17%	29%
Sexual abusive	10%	06%	11%
Family Risk Factors	03.4(2.2)	02.3(1.8)	02.3(2.1) <i>ns</i>
Psychiatric hospital	29%	21%	14%
Felony conviction	56%	44%	14%
Sibling institution	36%	10%	14%
Sibling foster	40%	25%	13%
Family illness	80%	47%	56%
Family violence	60%	33%	67%
Family abuse	80%	60%	80%

^aThe overall multivariate test had an alpha of $p=.076$.

*Univariate tests had an alpha of $p<.05$. The values for these variables are means and standard deviations (in parentheses)

Note. All other values are percentages, as indicated.

Symposium: California's Special Education Services and Systems

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Table 3
CBCL Scales by Relationship Between SED Eligibility Decision and Initial Opening Into MISC System of Care Program

Variable	Post MISC		Post MISC		Pre MISC	
	Direct Influence		Indirect Influence		No Influence	
	(n = 11)		(n = 20)		(n = 10)	
	M	SD	M	SD	M	SD
CBCL Total Problems	66.5	(10.4)	66.5	(09.4)	64.9	(07.1)
CBCL Internalizing	59.6	(10.6)	63.7	(08.6)	59.1	(14.5)
CBCL Externalizing	66.2	(10.9)	64.6	(10.2)	64.8	(05.7)
Withdrawal	56.4	(07.4)	62.8	(07.6)	59.3	(12.0)
Somatic Complaint	51.2	(02.9)	59.9	(10.0)	57.2	(06.4)*
Anxiety-Depression	66.0	(08.8)	62.1	(10.1)	63.4	(11.4)
Social Problems	64.9	(11.2)	68.2	(11.6)	62.8	(06.1)
Thought Problems	64.0	(11.2)	61.1	(11.9)	59.1	(08.0)
Attention	67.2	(11.7)	67.8	(11.1)	63.2	(06.8)
Delinquency	66.2	(08.9)	65.3	(08.6)	62.2	(06.8)
Aggression	65.7	(12.5)	64.5	(11.2)	63.8	(07.8)

* This univariate test had an alpha of $p < .05$. All other subscale comparisons were nonsignificant. The values for these variables are mean T -scores and standard deviations (in parentheses).

Academic Achievement and Mental Health Functioning: An Illusory or Realistic Relationship?

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Preparation of this manuscript was supported by grants from the National Institute of Mental Health (3P50MH43694, T32MH1826), and a contract with the California Department of Mental Health funded by the Center for Mental Health Services (96-7299).

Success in school provides the foundation for a productive future for children and adolescents. Emotional and behavioral disorders can undermine the capacity of children to succeed in school, handicapping their chances for stable employment, higher education, and a range of life opportunities (Wagner, 1995). Perhaps fewer than one half of children with emotional or behavioral disorders are being identified and served in special education (Forness, Kavale, & Lopez, 1993). Those youths who are provided with educational support tend to receive inadequate or inappropriate services (Knitzer, Steinberg, & Fleisch, 1990) that frequently are disconnected from their mental health services (Knitzer, 1996). Promoting better working relationships between the schools and the significant sectors of care that provide vital services for youths suffering from emotional disturbance is an integral component of recent efforts to create systems of care (Stroul & Friedman, 1996).

There is relatively little empirical information regarding programs within interagency systems of care that are designed to serve youths whose emotional and behavioral problems require intensive collaboration between mental health and education. Limited data on the emotional and behavioral functioning of youths enrolled in interagency systems of care are available (e.g., Epstein, Cullinan, Quinn, & Cumblad, 1995; Rosenblatt, Robertson, Bates, Wood, Furlong, & Sosna, 1998).

Empirical information, however, regarding those children who receive services specifically from education/mental health programs is sparse. Results from the National Adolescent and Child Treatment Study (NACTS) found that youths served in mental health and education systems had serious academic, emotional, and behavioral problems at entry into, and completion of, the study (Greenbaum, Dedrick, Friedman, & Kutash, 1996). In California, children and adolescents enrolled in collaborative mental health and education programs were, on average, one to two grade levels behind expected grade level upon entering collaborative education/mental health programs (Rosenblatt & Attkisson, 1997). A growing literature base indicates that a vast majority of youths identified by the educational system as having emotional and behavioral disorders have academic problems (e.g., Epstein, Kinder, & Bursuck, 1989; Sabornie, Cullinan, & Epstein, 1993).

Two key questions were addressed regarding the educational and clinical status of youths served by specialized collaborative programs nested within two systems of care: (1) What are the demographic, clinical, and educational characteristics of these youths; and (2) What are the relationships between clinical status and educational status for these youths.

Methods

Design. Youths were administered a set of instruments assessing educational and clinical status upon entry into the education/mental health specialty programs in Sonoma and Santa Cruz county. County mental health data were accessed to obtain demographic information collected by the mental health clinician. Participants consisted of all youths entered into a education/mental health specialty program in Sonoma between January 1997 and July 1997; and in Santa Cruz between September 1994 and April 1997.

The standardized test of educational achievement used was based on existing practice of test administration in special education in a given county, specifically the Wide Range Achievement Test3 (WRAT3; Wilkinson, 1993) and the Woodcock-Johnson Revised Test of Achievement (Woodcock & Johnson, 1989).

There were three sources of information regarding the clinical and functional status of the participants in the study: The Child Behavior Checklist (CBCL; Achenbach, 1991); the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges & Wong, 1996); and a DSM-III-R diagnosis (American Psychiatric Association, 1987).

Results

Demographic Characteristics. Participants from Sonoma county were 61 (52 males, 9 females) children and adolescents. Santa Cruz participants were 82 (69 males, 13 females) youths. The mean age of the youths at the time of the first testing was 11.8 for Sonoma and 11.6 for Santa Cruz with approximately 50% of participants in both counties in the 6 to 11 age range. The majority of youths in each county were Anglo-American (84%). Youths were primarily male in both counties (85% in Sonoma and 84% in Santa Cruz). Table 1 presents the demographic characteristics for youths in Sonoma and Santa Cruz counties.

Clinical and Functional Status. Table 2 depicts CBCL Broad Scale and CAFAS Total Scale scores for youths in both counties. In regard to clinical functioning, youths were rated in the clinical range on the Internalizing, Externalizing, and Total Problem Scales of the CBCL. Clinicians rated the children and adolescents, on average, in the clinical range on the CAFAS Total Scale. Youths in Sonoma county scored higher on all scales than those youths in Santa Cruz.

Educational Achievement. Table 3 shows achievement scores for youths in Sonoma and Santa Cruz. In Sonoma, WRAT3 scores indicated that youths were performing well below same-aged peers, particularly on the Spelling subtest. Spelling and math scores were approximately one standard deviation below average ($M = 100, SD = 15$ for the WRAT3). Relative to the other subtests, youths scored higher on the Reading subtest. These scores were within one standard deviation of the WRAT3 specified mean. Youths in Santa Cruz scored similarly on the Woodcock-Johnson, with the Written Language subtest relatively lower and the Reading subtest higher. Children and adolescents in Santa Cruz were performing at approximately two grade levels behind their peers in Written Language and in Math. Youths' performance scores on the Reading subtest were one-half a year behind their peers.

Table 1
Demographics of Youths and DSM Diagnosis
in Sonoma and Santa Cruz Counties

	County			
	Sonoma <i>n</i> =61		Santa Cruz <i>n</i> =82	
	<i>N</i>	%	<i>N</i>	%
Age				
0 to 5	0	0.0	3	3.7
6 to 11	32	52.5	43	52.4
2 to 18	29	47.5	36	43.9
Gender				
Male	52	85.2	69	84.1
Female	9	14.8	13	15.9
Ethnicity				
Anglo-American	51	83.6	69	84.1
Latino-American	9	14.8	1	1.2
African-American	1	1.6	9	11.0
Other	0	0.0	3	3.7

Relationship Between Academic Performance and Functional Indicators. In order to assess the relationships between educational achievement and indicators of functional status, a correlation matrix was created. The sub-scales of the WRAT3 or Woodcock-Johnson were correlated with the CBCL Internalizing, Externalizing, and Total Problem Scales and the CAFAS subscales and Total Scale. The correlation matrix revealed no significant relationships between the WRAT3 or the Woodcock-Johnson with the CBCL Broad Scales and the CAFAS subscales and Total Scale. Chi-square tests revealed no significant associations between the WRAT3 and DSM III-R diagnoses (all p 's > .35) or the Woodcock-Johnson and DSM III-R diagnoses (all p 's > .20). As no associations were found between the measures of educational and functional status, we did not proceed with multivariate analyses.

Discussion

In summary, children and adolescents served in education/mental health programs in Santa Cruz and Sonoma counties were achieving below expected grade level and showed evidence of severe emotional and behavioral problems at entry to these programs. However, the academic achievement of these children as measured on the standardized tests did not relate significantly to their mental health functional status.

The results obtained in this study can be compared with findings from other special education programs that serve children with severe emotional disturbance. The demographic characteristics of the youth served in our sample are similar to those found in other studies (e.g., Mattison & Felix, 1997; Sabornie et al., 1993; Silver et al.,

1992). The low academic achievement of youths in Santa Cruz and Sonoma counties also parallels findings from other studies of youths with EBD/SED (e.g., Duchnowski, Johnson, Hall, Kutash, & Friedman, 1993; Greenbaum et al., 1998; Rosenblatt & Attkisson, 1997).

The picture with regard to DSM III-R diagnoses is more complex. In Sonoma county, a majority of youths received a primary diagnosis of an internalizing disorder whereas youths in Santa Cruz were more frequently diagnosed with externalizing disorders. These mixed findings match the variety of diagnoses obtained in other studies with similar populations. Studies of special education programs have indicated a higher incidence of primary diagnoses of externalizing disorders for youths with SED (Mattison & Felix, 1997; McGinnis & Forness, 1988), whereas youths in other special day class programs have been more frequently diagnosed with internalizing disorders (Duncan, Forness, & Hartsough, 1995).

Table 2
Functional Status of Youths in Sonoma and Santa Cruz Counties

Instrument	County	
	Sonoma ($n=61$) <i>M (SD)</i>	Santa Cruz ($n=82$) <i>M (SD)</i>
CBCL Scale		
Internalizing	68.4 (11.9)	63.5 (12.2)
Externalizing	72.3 (10.0)	65.6 (11.0)
Total Problem	73.5 (10.5)	67.2 (11.2)
CAFAS Scale		
Total Scale	78.4 (19.3)	74.9 (26.6)
DSM Diagnosis	<i>N (%)</i>	<i>N (%)</i>
Mood/Affective	24 (39.3)	13 (15.9)
Anxiety	9 (14.8)	8 (9.8)
Disruptive	12 (19.7)	21 (25.6)
ADHD	7 (11.5)	25 (30.5)
Other	9 (14.7)	15 (18.2)

Symposium: California's Special Education Services and Systems

The variation across locales and populations in the primary diagnosis assigned to youths may be due to the co-morbid nature of many childhood disorders. Many children and adolescents in treatment have both internalizing and externalizing disorders. The National Adolescent and Child Treatment Study (NACTS), for example, examined the diagnoses of youths with SED and found that approximately 60% of the youths had an internalizing disorder and 78% had an externalizing diagnosis (Greenbaum et al., 1998).

With respect to clinical and functional status, the youths in our study have similar or higher levels of impairment indicated by the CBCL as youths receiving services from other mental health care systems such as the Fort Bragg demonstration (Bickman et al., 1995) and the IMPACT program in Kentucky (Illback, Nelson, & Sanders, 1998). The CAFAS scores of youths in both Sonoma and Santa Cruz are similar to those of youths in other studies (Duchnowski et al., 1993; Bickman et al., 1995; Wood et al., 1997).

This study had limitations due to the nature of interagency collaboration and evaluation. Studies conducted within the context of community programs are often restricted by a lack of control over many aspects of the research design (Attkisson & Rosenblatt, 1993). School districts were able to continue their current practice of academic achievement testing, including how they scored the tests. As a result, Santa Cruz collected grade scores from the Woodcock Johnson and Sonoma collected standard scores from the WRAT3. This mixing and matching of instrumentation makes inter-county comparisons especially problematic.

The results did not indicate a relationship between academic achievement and functional status. The sample size, however, may have been too small to detect statistical differences. Assessing whether this finding generalizes to a larger sample of youths in education/mental health programs is warranted. In addition, evaluating the presence or absence of a relationship between functional status and academic achievement for youths in the overall system of care remains a topic for further study.

This study has policy implications. Our findings suggest that measures of functional status should not be used as a proxy for evaluation of educational achievement. As exemplified by our study, where measures of academic performance were unrelated to measures of clinical and functional status, academic performance and clinical status may be separate, or partially related, constructs. Consequently, a comprehensive evaluation of youths requires the use of both functional and academic assessment instruments.

Table 3
Academic Achievement at Intake of Youths in Specialized Education Programs

Instrument	Sonoma	
	Wide Range Achievement Test Standard Scores	
	<i>M</i>	<i>SD</i>
Reading	92.6	20.3
Math	83.6	16.7
Spelling	84.1	14.6
Instrument	Santa Cruz	
	Woodcock-Johnson Grade Level Scores	
	<i>M</i>	<i>SD</i>
Reading	5.6	4.3
Mean grade level behind	0.5	3.0
Math	4.3	2.8
Mean grade level behind	1.8	2.2
Written Language	4.2	3.6
Mean grade level behind	1.9	2.7

This study provides evidence that youths served in education/mental health programs have multi-system needs that warrant multi-agency collaboration and services. These children and adolescents are not achieving at their expected grade level academically and have significant levels of clinical symptomatology. More research detailing the problems and needs of youths in education programs within integrated care systems can help practitioners and researchers understand the scope and breadth of the challenges faced by these children and families.

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Symposium Discussion

There are two key findings that emerge from these papers. First, a system of care may increase the rate of identification of special education needs of children and adolescents. Second, the children identified as requiring joint education and mental health services within two systems of care have significant mental health problems and deficits in educational achievement. Although the authors of the papers note the limitations of their findings, they do present evidence that systems of care may be having appropriate impacts on the identification and referral of youth to special education services.

In California, where relatively few youth are identified as needing special education services, an increase in identification rates probably means that youth who need these services are being identified for the first time. Certainly, given the data presented in the second paper, it appears that the children and adolescents served in specialized county programs have the kinds of multi-system needs that call for collaborative interventions. Of course, a great deal remains to be learned regarding the effectiveness of these programs and the adequacy of current identification rates for special education services. Nonetheless, taken together, these papers illustrate the need to more fully understand the relationships between the education system and other care sectors— especially when the education system is a core component of a broader system of care approach.

The School and Community Study: Exemplary Program Models and Child and Family Progress Over Time

Introduction

The School and Community Study

Children who have serious emotional disturbances have been described as an underserved and ineffectively served group of youngsters with disabilities (Koyanagi & Gaines, 1993). Year after year, *The Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act* prepared by the Office of Special Education and Rehabilitation Service (OSERS) has documented the low number of children identified and served and the poor outcomes for those who are served in the special education system (U.S. Department of Education, 1995). This report indicates that less than one percent of the school age population has been identified as seriously emotionally disturbed while conservative prevalence estimates range from three to five percent (Knitzer, 1982; Koyanagi & Gaines, 1993). Further results from the report indicate that children with serious emotional and behavioral disorders have lower grade point averages and graduation rates and fewer attend post-secondary schooling as compared to students who have any disability as well as students in general.

During the past 10 to 15 years, the special education community began a series of reform initiatives, responding to a number of annual reports to Congress documenting poor outcomes for

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children with disabilities (see, for example, U.S. Department of Education, 1995). These reforms focused on normalizing the experience of exceptional learners by increasing their contact with non-exceptional students. Models were developed to increase mainstreaming (Wang & Birch, 1984), to integrate regular education and special education (Will, 1986), and to completely include children with disabilities in all aspects of a totally comprehensive school (Sailor et al., 1989). At present, the reform literature, though extensive, is lacking on several counts. It is normative rather than empirical, and it lacks a comprehensive theoretical framework. In addition, there is no clear explication of which reform mechanisms, if any, contribute to positive outcomes for children with emotional and behavioral disabilities. Furthermore, there are several different foci and combinations of reforms that could be occurring in a particular school.

The School and Community Study (SACS) has been designed to study the effects of various aspects of social service reform, school restructuring, and special education reform for children and youth with emotional and behavioral disabilities. Specifically, this study will identify successful school-based models, explicate the interventions used, and demonstrate that there are efforts at the state, local, and school levels that are community-based, family-focused, and child-centered that contribute to improved outcomes for children and youth (see Figure 1).

A sample of children with emotional and behavioral disabilities was identified at each school in the study and will be followed longitudinally for two years. Data was collected from state administrators, social service providers, school staff, and children and their families. Data collection for the SACS was conducted in two phases, with Phase I schools ($n= 4$) beginning in the study approximately 1 year before the schools in Phase II ($n=6$). This paper will discuss the findings for all partici-

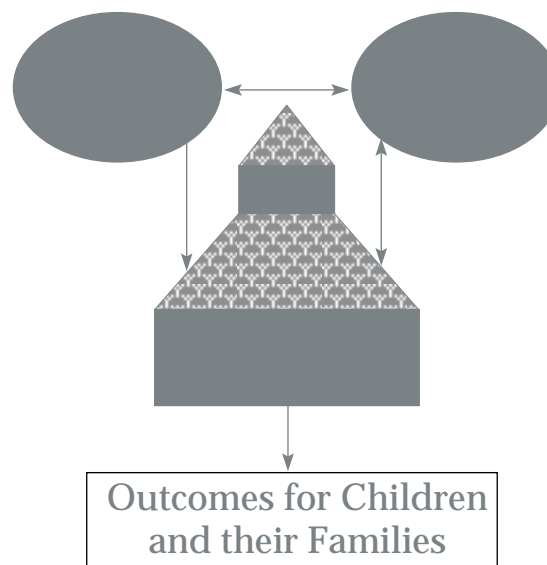
pants at baseline and the preliminary results for Phase I participants ($n=19$) at 12-month follow-up. Ten schools and 116 children are participating in the study.

Method

Subjects

Informed consent was obtained from the parent or caregiver of 116 children formally identified as having an emotional and behavioral disability who were being educated in a regular public school. The average age of the sample was 11.6 years old and included mostly males (81%), Caucasians (79%), and students who received free or reduced price school meals (66%). To address the representativeness of the current sample of students, some of the key demographics of the 116 participants were compared to 29 students who were eligible for the study but did not receive parental consent. Participants and non-participants did not differ significantly with regard to gender $\chi^2(1, N=145)=1.05, p > .05$;

Figure 1
Effects of Restructuring and Reform
on Outcomes for Children and Families



School and Community Study

race $\chi^2(1, N=145)=.48, p>.05$; and cost of school meals $\chi^2(1, N=145)=.50, p>.05$. Although non-participants were 1.2 years older than participants on average, the difference in ages was not statistically significant, $t(143)=1.81, p=.07$.

Instruments and Measures

Staff used a variety of data collection methods including surveys, semi-structured interviews, and reviews of student records. The standardized instruments used in the study include Wide Range Achievement Test III (WRAT III; Wilkinson, 1993), and the Slosson Intelligence Test - Revised (SIT-R; Slosson, 1986), the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1997), Child Behavior Checklist (CBCL; Achenbach, 1991), Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1990), Child and Adolescent Services Assessment (CASA; Ascher, Farmer, & Burns, 1996), Client Satisfaction Questionnaire (CSQ; Attkisson & Zwick, 1982).

Procedure

The identification of successful school-based models for inclusion in the study was achieved through a multi-method site selection process, consisting of a national call for nominations, an examination of responses to two surveys, and a site visit. Through a selection process, 216 nominated schools were winnowed down to 14 schools who were invited to participate in the study. Four schools were unable to continue in the study, so the total sample for the study consisted of 10 schools.

Data were collected from individuals at multiple organizational levels including state officials, local community leaders, members of local inter-agency committees, school personnel, parents, and the children themselves. Study staff interviewed representatives from state and local agencies and personnel from the ten schools. Visits to the schools also were used to review the students' records and administer the WRAT and SIT, only if the student's

most recent intellectual assessment was more than two years old. Additionally, parents/caregiver interviews were conducted by phone and include standardized instruments.

Results & Discussion

School restructuring efforts

There are two schools located in each of Maryland, Georgia, Vermont, and Kentucky, and one school in Iowa and Wisconsin. This sample includes five elementary schools, two schools that serve children in grades K-8, one middle school, and two high schools. Based on the current restructuring literature, as well as interviews with multiple staff at each school and parents who have children attending these schools, six operating structures began to emerge: Governance, Curriculum and Instruction Reform, Accountability, Parent Involvement, "Includedness," and Pro-Social Discipline. The measurement of these six areas in each of the participating schools has been determined with a very high degree of reliability. There is evidence of de-centralization of authority from the district to the school building level. For example, the principal, faculty, and parents share decision-making. These schools have adopted innovative techniques and instruction models to improve the instruction of children in both regular and special education classrooms. Examples include multi-age grouping, instructional teams, and consultative-collaborative models of special education. Each of these schools is committed to the evaluation of outcomes for all students. In measuring outcomes, standardized tests are used in addition to criterion referenced tests. A high level of parent involvement, including parents of children who have emotional and behavioral disabilities, is evident in these schools. School staff shares the belief that students who have emotional and behavioral disabilities belong in the community school and their education is the responsibility of all teachers. These schools have a discipline policy and procedures that include such approaches as conflict

resolution, peer counseling, and a process for handling all students in an individual manner, including those who have emotional behavioral disabilities. This process deals with discipline in a positive manner that enables the student to learn from these experiences.

Student performance at baseline

For the 116 children in the study, the average IQ score was 91 while the average standard score was 87 for reading achievement and 85 for math achievement. With regard to academic functioning, 47% of the students had an IQ score in the below average range, 57% were below average in reading, and 54% were below average in math. In terms of emotional functioning, the average Total Problem Score on the CBCL was 67 with 10% of the children scoring in the borderline range and 70% in the clinical range. The participants had an average Strength Quotient of 113.7 on the Behavioral and Emotional Rating Scale indicating above average strengths. Findings from the Child and Adolescent Functional Assessment Scale (CAFAS) indicate that the majority of students were in the severe or moderate range in 4 of the 8 domains: School (92%), Behavior Toward Others (76%), Home (66%), and Moods/Emotions (64%).

Students spent an average of 24% of their day in an academic general education setting and 21% in a nonacademic general education setting (see Figure 2). The services delivered most frequently during the school day were group counseling (42%) and case management (35%), both of which were provided by school-based personnel. Administration of the Child and Adolescent Services Assessment revealed that the majority of the participants (95%) had received help from professionals (e.g., school personnel) during the past 6 months, while almost half (48%) had received outpatient treatment. Parents were highly satisfied with both educational and related services. Fur-

ther, parents were highly involved in school functions and in the special education process.

Twelve-month outcomes

Preliminary findings from the Wide Range Achievement Test for 19 Phase I participants revealed an average reading standard score at baseline of 80.1 and an average standard score of 86.7 after 12 months, $t(18)=2.41$, $p=.03$. For math the average standard score at baseline was 77.4 and after 12 months it was 85.7, $t(18)=2.01$, $p=.06$ (see Figure 3). Analysis of CBCL T-Scores at baseline and 12 months revealed no significant differences over time for the Externalizing, Internalizing, or Total Problem scales (see Figure 4). At 12 months, results from the CAFAS indicated that the majority of the children continued to function in the severe or moderate range in four of the eight categories: Behavior Toward Others, Moods/Emotions, and Role Performance at School and Home.

Figure 2
Percentage of Time in Educational Settings
($N=116$)

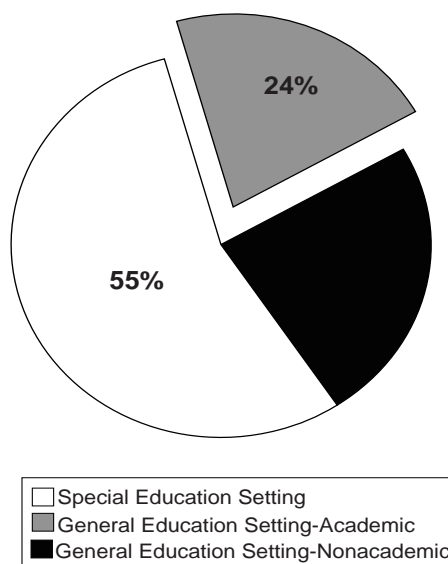


Figure 3
WRAT Mean Scores Over Time
(N=19)

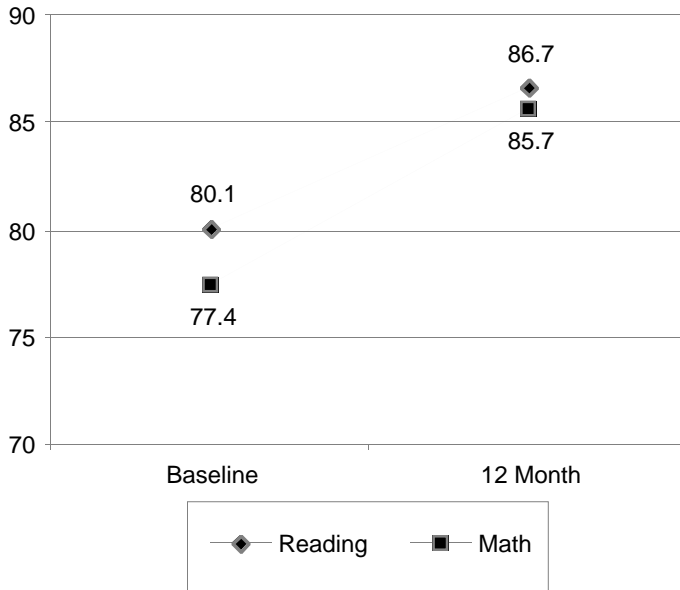
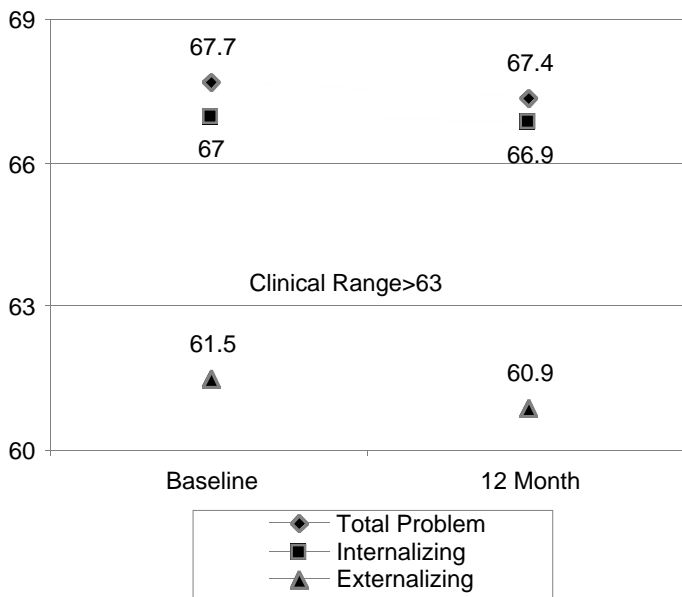


Figure 4
CBCL Mean T-Scores Over Time
(N=19)



Conclusion and Future Directions

Academically, the majority of students are behind in both reading and math. In terms of emotional functioning, these children have substantial emotional and behavioral disabilities (approximately 80% of the children scored in the clinical or borderline range on the CBCL). While preliminary results for children in the first four schools of the study indicate that there was no change in the levels of emotional functioning over a 12 month period, standardized reading scores significantly improved over time, and math scores increased, although not significantly. These findings indicate that schools can successfully improve learning outcomes in children in spite of fairly severe academic and emotional challenges.

This paper has presented a description of the method and procedures used, a description of the schools, the children with emotional and behavioral disorders being served in these schools (N=116), and preliminary 12 month follow-up data on students (n=19) attending Phase I schools (n=4). Data collection will continue for the remaining participants and will conclude during June 1999.

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Identifying Children with Emotional Disturbance Who Qualify for Special Education Services

Introduction

The *Scale for Assessing Emotional Disturbance* (SAED: Epstein & Cullinan, 1998) is a standardized, norm-referenced scale that assists in the identification of children who qualify for the federal special education category **Emotional Disturbance**. The SAED is based on the federal terminology and definition of emotional disturbance as presented in the Individuals with Disabilities Education Act of 1990, as amended in 1997. As such, the SAED addresses the five conditions on which identification of emotional disturbance is based, as well as other key features of the federal definition including assessing social maladjustment and measuring adverse educational performance. Data from the norming, factor analysis, and construct validity studies is presented.

Background

The Individuals with Disabilities Education Act (IDEA) of 1990, and amended in 1997, is a major U.S. federal special education law that guarantees the right to an appropriate education for all children with disabilities. IDEA identified 12 varieties of disability, one of which is emotional disturbance (ED). IDEA defined ED as one of the following five characteristics: inability to learn, relationship problems; inappropriate behavior; unhappiness or depression; and physical symptoms or fears. In order for a child to be identified as ED, one or more of these characteristics has to occur over a long period of time, to a marked degree, and adversely affect educational performance.

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Although many instruments are available to professionals in assessing emotional and behavioral problems, *none* of these are keyed to the special considerations and characteristics found in the federal definition. Thus, the identification of ED is made more difficult because of the lack of a scale that operationalizes the definition of ED. We began to develop the SAED to provide professionals with a standardized, valid and reliable instrument to assess emotional disturbance.

Norms

In the winter and spring of 1997 efforts were made to establish norms for the SAED. Several hundred teachers, school psychologists, and counselors, nationwide, were asked to complete the SAED on students with whom they work. Two sets of normative data were collected for the SAED. One was based on students not identified with emotional disturbance (*nonED sample*) and one on students diagnosed with emotional disturbance (*ED sample*). The nonED sample included 2,266 students ranging in age from 5-0 through 18-11 years. The characteristics of the sample with regard to geographic area, gender, race, ethnicity, and educational attainment of parents were compared with 1990 data from the U.S. Bureau of the Census. The comparison indicated that the sample selection procedures resulted in a normative sample that was *representative* of the nation as a whole. The ED sample included 1,371 students ranging in age from 5-0 to 18-11 years. Based on these data three age norms (elementary school 5-0 to 11-11; junior high school 12-0 to 14-11; and high school 15-0 to 18-11) were established for each sample.

Factor Analysis

Factor analytic procedures were conducted to determine the dimensions measured by the SAED and to determine if the dimensions aligned with the federal definition of ED. First, the data set included the 2,266 nonED students. At this point

the instrument consisted of 66 items (59 emotional and behavioral items and 7 competence items). An oblique factor analysis was conducted, with individual item loadings set at .40. This analysis resulted in seven factors. A few of these factors contained three items or fewer or otherwise were difficult to interpret. Then, an orthogonal (principal components) factor analysis with a varimax rotation was conducted on the data set, with the following criteria: eigenvalues greater than 1.0, individual item loadings equal to or greater than .40, and a minimum of four items in any factor. This analysis resulted in the identification of six meaningful factors. Next, several items were removed because they were redundant, overlapped with other items, or did not contribute to the factor. Forty-five items remained following this review. A final factor analysis using the principal components method with a Promax rotation was conducted and resulted in the identification of the following factors: inability to learn, relationship problems, inappropriate behavior, unhappiness or depression, physical symptoms or fears, and social maladjustment (see Table 1).

Construct Validity

One way of establishing an instrument's validity is to study the performance of different groups of individuals on the instrument. Given what is known about the relationship of the instrument's content to the group, each group's results should make sense. In the case of the SAED, one would expect that students with ED would be rated higher by adults than students without ED. Data for this study were those used in the norming process ($N=2,266$ nonED: $N=1,371$ ED). The raw scores were converted to standard scores. To test for these differences, t-tests were conducted (one for each of the subscales and one for the overall SAED score). The Bonferroni procedure was used to control for TYPE 1 error and the alpha level was set at 0.006. The ED group scored about one

Identifying Children for Special Education Services

Table 1
Factors and Loadings of the Items for the SAED by Subscale (decimals omitted)

Subscale	Item	Loading
Inability to Learn eigenvalue = 2.68	9. Written expression skills (reports, essays, etc.) are poor	85
	18. Listening and note-taking skills are weak	83
	26. Does not independently complete assigned homework	77
	27. Homework skills are poor	76
	34. Gets distracted; doesn't pay attention to teachers or work	73
	35. Mathematics skills are poor	74
	37. Lacks interest, motivation, positive attitude toward school task	70
	43. Reading skills are poor	79
Relationship Problems eigenvalue = 1.52	12. Has few or no friends	86
	13. Does not work well in group activities	61
	24. Rejected, avoided by peers	83
	32. Feels picked on or persecuted	53
	46. Lacks skills needed to be friendly and sociable	78
	50. Avoids interacting with people	65
Inappropriate Behavior eigenvalue = 17.07	10. Disrespectful; defiant of authority	87
	11. Cruel to peers	83
	15. Verbally abuses, teases, or taunts people	86
	16. Fails to consider the consequences of own acts	81
	20. Cheats, lies, steals	71
	25. Makes threats to others	85
	29. Disruptive, loud, rowdy	84
	33. Destroys and ruins things	77
	40. Physically assaults or fights people in school	79
	49. Uses obscene, profane, or sexually oriented language	77
Unhappiness or Depression eigenvalue = 1.00	21. Lacks self-confidence	51
	23. Has feelings of worthlessness	52
	28. Experiences little pleasure or joy	61
	31. Sad much of the time, does not smile often	57
	36. Little or no interaction with teacher	57
	47. No longer interested in things formerly enjoyed	44
	52. Pessimistic about future; expresses hopelessness	59
Physical or Fears eigenvalue = 3.58	8. Complains of physical discomfort (e.g., headaches, stomach aches)	53
	14. Anxious, worried, tense	75
	19. Afraid of unlikely dangers or calamities to self or others	65
	30. Talks about suicide or own death	57
	38. Has overtly sensitive feelings and emotions	74
	39. Feels excessively guilty	60
	41. Shows nervous habits (e.g., tics, bites nails, twists hair)	56
	44. Harms own body (e.g., picks self, cuts self, writes on self)	49
Social Maladjustment eigenvalue=1.83	17. Vandalizes property in the community	72
	22. Takes part in illegal or antisocial gang activities	80
	42. Abuses drugs or alcohol before or after school	64
	45. Exhibits precocious sexual behavior	43
	48. Runs away from home	60
	51. Steals in the community and at home	76

standard deviation higher than the nonED group on all the subscales and the overall score. All of the differences were statistically significant at the $p = 0.0001$ level (see Table 2).

Summary

The SAED is well constructed and appears to have excellent psychometric properties. It has six principal uses: to identify students with ED; to aid in the prereferral screening of large groups of students; to clarify the “socially maladjusted” and “adversely affects educational performance” conditions of decision-making about ED; to select appropriate education goals for an individualized education program (IEP); to document progress toward goals as a consequence of specialized services; and to measure emotional and behavioral disorders in research and evaluation.

Reference

Epstein, M. H., & Cullinan, D. (1998). *Scale for assessing emotional disturbance*. Austin, TX: PRO-ED.

Table 2
Means, Standard Deviations, *t*-test Results, and Probability Levels for non ED and ED Groups on the SAED Subscales and Quotient

SAED	Non SED		ED		<i>t</i> -test	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Inability to Learn	10.00	3.00	12.53	2.94	24.28	0.0000
Relationship Problem	10.00	3.00	13.72	4.08	28.89	0.0001
Inappropriate Behavior	10.00	3.00	14.81	4.14	36.72	0.0001
Unhappiness or Depression	10.00	3.00	13.50	4.20	26.48	0.0001
Physical Symptoms or Fears	9.99	3.00	13.94	4.70	27.40	0.0001
Socially Maladjusted	10.00	3.00	14.02	6.17	22.15	0.0001
Overall Competence	10.00	3.00	7.68	2.38	25.47	0.0001
SAED Quotient	100.00	15.00	122.66	16.78	38.17	0.0001

Note: nonED = no emotional disturbance; ED = emotional disturbance

School-Based Standard: New Funding Strategies for Broad Based Services

Introduction

School-based mental health services can permit easily accessible, highly flexible approaches that are minimally stigmatizing and are consistent with the school's focus on building competence. As such, school-based programs can respond to the needs of the school community through a wide array of prevention and early intervention strategies, with clinical interventions reserved for youth and families experiencing significant behavioral and emotional concerns. The University of South Carolina (USC) Project for School-Based Mental Health Services has focused on developing comprehensive school-based programs which use an ecological or systems perspective as a theoretical framework.

Prior to collaboration with our program, many community mental health centers (CMHCs) in South Carolina had begun offering services in schools. In many instances, however, the approach used was simply "out-stationing," in which the location but not the form of service delivery had changed. This approach does not take advantage of the school setting to maximize its potential preventive and educational effect.

The broad-based intervention strategy advocated by the USC Project has been difficult to implement. Several factors may have affected the ease and swiftness with which a shift to an ecological orientation occurred. However, the most salient issue appeared to be the need to contribute to the fiscal base of the school-based program. It was in response to this issue that

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the project faculty worked with the state Medicaid agency and the South Carolina Department of Mental Health (SCDMH) to develop the School-Based Services Standard (SBS).

The SBS is a bundled service code which was introduced to support the implementation of ecological or systems-based treatment for children, adolescents, and their families receiving clinical intervention within school-based programs. As a bundled service, different treatment options are available for use within this framework. The primary emphases of the standard were: (1) the development of a “team” approach to services, and (2) utilization of an ecological perspective. Other aspects of this service code included a single bill rate for all eligible SBS services delivered on the same day and a reduction in paperwork when multiple services were provided (i.e., only one clinical services ticket was required to document all SBS services delivered). The primary assumption behind the use of the SBS standard was that clinical services would become shorter in duration and more intensive, with increased clinical outcomes.

The purpose of this study was to answer the following five questions:

1. Does SBS encourage the use of a systems perspective?
2. Does the standard increase the frequency with which treatment is provided?
3. Does the standard affect clinicians' descriptions of the treatment process?
4. Does the standard increase clients' overall rate of progress?
5. Can those using the standard earn the same amount of money as those not using the standard?

Method

Participants

Three CMHCs in South Carolina were chosen to participate in a pilot study of the School-based Standard. School-based clinicians and their graduate assistants in the three pilot sites were encouraged to use the SBS as their primary service code for a six-month period (from January to June 1997). Three other CMHCs involved with the overall USC School-Based Mental Health Project were used as comparison sites and were not given any instructions about using or not using the SBS during the six month period.

Procedure

Data were collected at enrollment and six months post-enrollment. Measures included the Client Review Form (CRF), a self report measure developed specifically for this study to assess the impact of the SBS on the clinicians' ability to incorporate an ecological approach to services. Data from SCDMH (i.e., audit report and cost accounting system) were also used to examine the SBS standard. Qualitative measures (i.e., a focus group meeting with school-based clinicians, interviews with clinicians and their supervisors) were used to capture the experiences of the persons directly involved in the use of this standard.

Results

Analyses

Separate one-way ANOVAs were conducted to assess change in the level of involvement among the individuals/systems included in the treatment process. Statistically significant differences were found from pre- to post-measures over all of the individual/system categories [$F(1,119)= 16.36, p< .01; \bar{x}=6.545$ to $\bar{x}=7.547$] as well as for the categories of family [$F(1,119)=10.42, p<.01; \bar{x}= 3.033$ to $\bar{x}=3.331$] and

New Funding Strategies for School-Based Services

school [$F(1,119)=15.75$, $p<.01$; $\bar{x}=3.027$ to $\bar{x}=3.623$]. Involvement by peers and neighborhood/community from pre- to post-test were not found to be statistically different.

To determine if there was a difference in the frequency of treatment contacts by the primary school-based clinician pre- to post-test, a one-way ANOVA was conducted. The changes in frequency were found to be statistically significant, $F(1,119)=3.42$, $p<.01$. However, when the frequencies were examined by the percentage of clinicians who reported that frequency, the differences were found to be variable and against the expectations of the study. For example, the frequency of daily contacts decreased from 6.4 average contacts to 2.5 average contacts. Conversely, the number of twice monthly contacts almost doubled from 16.3 average contacts to 32.2 average contacts.

The difference in clinicians' descriptions of the treatment process from pre- to post-test was found to be non-significant. However, differences in the ratings of clients' overall progress from pre- to post-test was found to be statistically significant $F(1,113)=31.80$, $p<.01$.

Costs

A factorial ANOVA was conducted to determine if there was a difference in service code utilization between the pilot and comparison sites. This was found to be statistically significant ($F=2.99$, $p<.05$). See Figure 1 for summary and Table 1 for service code information.

The average amount of money earned by service code was compared across the two groups using a simple factorial design. All of the effects were non-significant except for the main effect of service code ($F=13.462$, $p<.01$, see Figure 2).

A one-way ANOVA was used to determine if there was a difference in the average amount of money charged per client between the groups. It

was found that billing generated by service delivery in the non-SBS group ($N=283$) was higher ($M=\$572.72$) than the billing generated in the SBS sites ($N=386$, $M=\$351.35$) at a statistically significant level ($F=44.6$, $p<.01$). However, when a one-way ANOVA was conducted to compare the average sum of money earned by centers across the two groups, the difference was found to be nonsignificant.

Discussion

Client service data from SCDMH indicated that clinicians in the three pilot sites did use the SBS service code. It was found that the three pilot sites used the school-based code more frequently, while the non-SBS sites used the individual therapy code more frequently. However, the utilization of the SBS code does not directly address whether or not ecological or system-based treatment interventions were used with the clients and families served. No significant changes in the treatment progress were found. This is consistent with a case level audit conducted by SCDMH to study the implementation of the standard which found that most of the services rendered under this code were individual focused. This suggested that the clinicians and graduate students were not fully incorporating the ecological model that led to the development of this standard.

The CRF data revealed that clinicians saw significant client progress over the period of the study, although the form of service delivery did not change significantly. The frequency of treatment service provision over time decreased. This reduction may be consistent with clinicians' determination that the improvement by clients warranted a reduction in service intensity. This would be supportive of the model's premise that early intensive services result in a reduction of treatment services in the long term. However, a longer term more controlled study is needed to support such conclusions.

Waithe Simmons, Alcock & Motes

Differences found in the billing generated on a client by client basis across the two groups did not reflect statistically significant differences in the amount of overall billing. However, this finding cannot be generalized to offer support for a change in the form of service delivery because the two groups were not comparable. For example, the differences in service code utilization found across the two sites, where pilot sites used the SBS code more frequently while the non-SBS sites used the individual therapy code most often, appear to have been present initially (see Figure 3).

Qualitative measures suggested that clinicians had misconceptions and fears about using the standard, particularly that it would result in lower revenue generation. This is an important concern

as clinicians feel a significant amount of pressure to contribute to the overall fiscal base of the CMHC. This concern was based on the lower charge for school-based services (i.e., \$35.00 per day) when compared to other services (e.g., \$45 per 30 minute unit for individual therapy). However, much of the generation of billing comes from the frequency of services provided. In school-based settings, clinicians are likely to see clients for no more than 2 billing units for a service such as individual therapy (i.e., \$90 per week), while contacts supportive of school based services are likely to occur at least 3 days per week (i.e., \$105 per week).

Clinicians also felt that the effort involved in provision of multiple services, and thus the coordination of such efforts, required significantly more

Table 1
Service Code Information

Code	Services	Minutes per Unit	Maximum Units	Rate Per Unit (\$)
1	Crisis Management	30	4	69.00
2	Assessment-MHP	30	4	52.00
3	Individual Therapy	30	4	45.00
4	Family Therapy	30	4	45.00
5	Group Therapy	30	6	17.00
6	Rehabilitative Psychosocial Therapy	30	10	7.00
7	Restorative Indep Living Skills	30	12	7.00
8	Non-Hospital Intensive Care	30	12/24	14.00
9	Medication Compliance Group	30	4	21.00
11	Medication Monitoring	15	3	32.00
12	Psychiatric/Medical Assessment	15	6	43.00
17	Treatment Plan Formulation Staffing	15	2	45.00
18	Intensive In-Home Services	30	10	43.00
20	Mental Illness Management Services	30	12	17.00
26	School-Based Services	30	1	35.00
30	Targeted Case Management-Youth	15	8	19.00
32	Case Consultation	15	8	19.00
33	Care Coordination	15	8	19.00
34	Treatment Planning	15	8	19.00
35	Report Preparation	15	8	19.00
36	Caregiver Group	30	4	17.00
37	Interagency Staffing	15	16	19.00

New Funding Strategies for School-Based Services

Figure 1
Service Code Utilization (Jan-June/97)

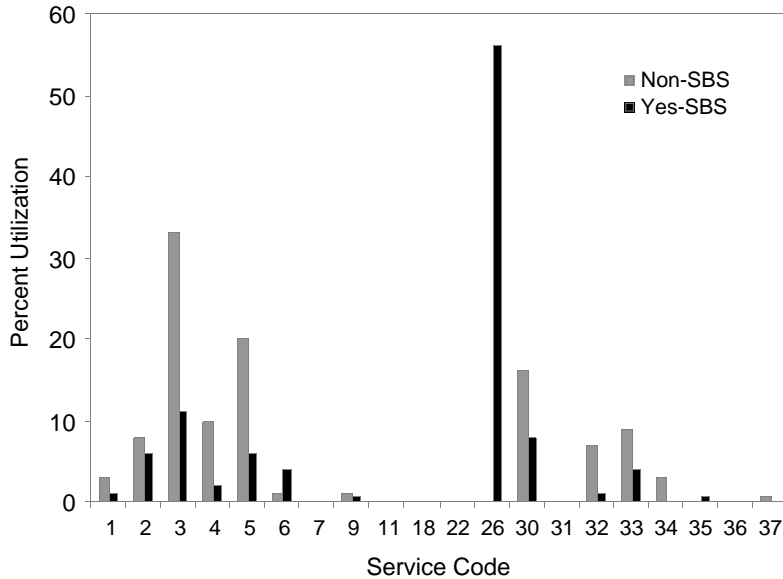
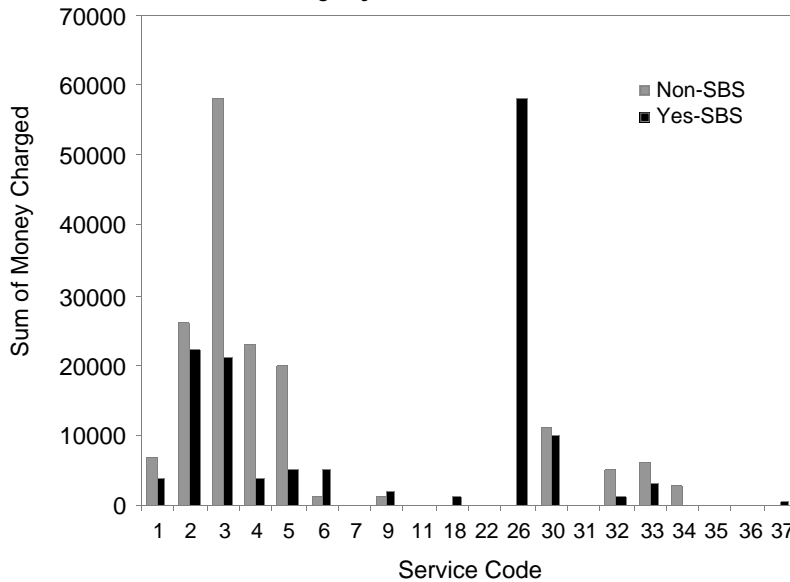


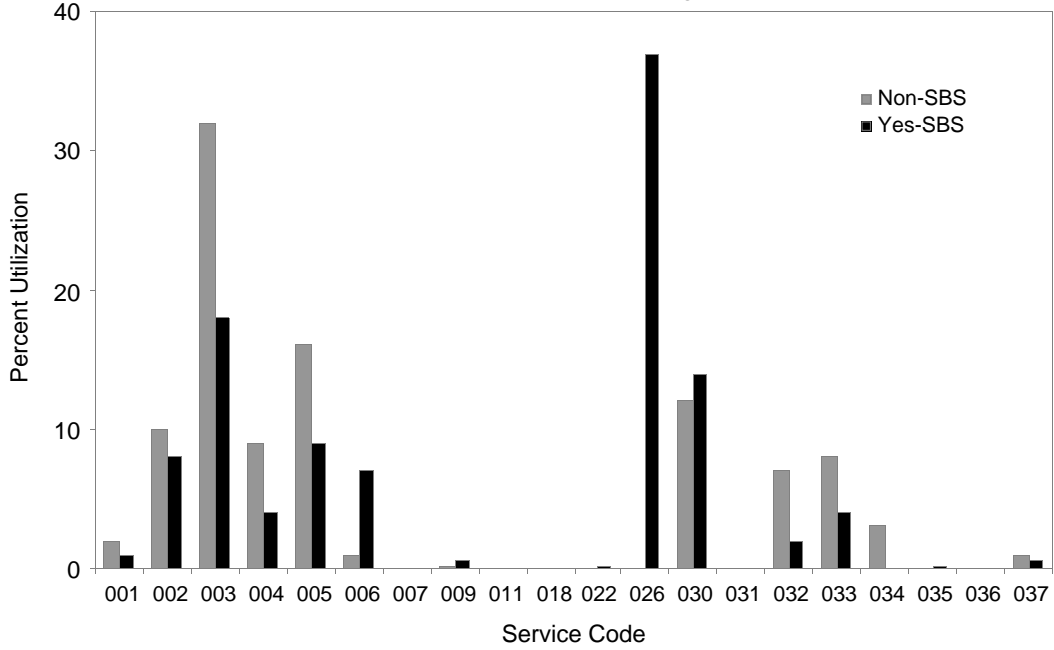
Figure 2
Earnings by Service Code Across Sites



time than is reflected in the bill rate for school-based services. However, through the focus group meeting with clinicians, clinicians reported that their vision of school-based services is consistent with a change in form of services to incorporate the ecological perspective for individual client services as well as the broad based prevention and early intervention focus supportive of the full school community. However, the stronger need to generate funds may have prevented clinicians from acting on their own vision of quality service delivery within school-based settings.

Despite these concerns, clinicians did report that the standard allowed them to engage in different behaviors or to bill for existing behaviors previously not captured. They reported feeling more comfortable providing services within the natural ecology of the school environment and recouping costs for the delivery of such services. This suggests promise for continuing use of this standard. Given the significance of funding issues for the CMHCs, more intensive efforts needed to be in place to counter this long standing climate issue. Clinicians needed to be involved more in the development of the standard in order to have had greater “buy in” at the outset of the study. For clinicians to offer the more comprehensive, short-term intensive services supported by an ecological perspective requires a shift in paradigm. Such a shift will require time.

Figure 3
Service Code Utilization (Aug-Dec/96)



Quality Assurance Activities in High School Student Mental Health Centers

Introduction

Expanded school mental health (ESMH) programs are becoming increasingly popular systems for providing mental health services for students and families. When mental health services are delivered in schools, there are greater opportunities to reach underserved youth from low-income families (Weist, 1997). If quality assurance (QA) activities are conducted, more information about stakeholder needs and the quality of current programs will be available. QA activities include developing standards, conducting stakeholder focus groups to determine needs and evaluate programs, and implementing Peer Review Teams. Studies that evaluate stakeholder perceptions about mental health services can provide important accountability data by documenting positive and negative aspects related to treatment. For this study stakeholder focus groups were conducted to gain knowledge about the factors related to positive treatment outcome, barriers to accessing services, and methods for improving service delivery for adolescents receiving school-based mental health services.

As a research method, focus groups provide a format for "...individuals to respond in their own words, using their own categorizations and perceived associations" (p. 13, Stewart, & Shamdasani, 1990). Focus groups offer several advantages as a research technique. First, they provide an opportunity to obtain a large amount of data. Second, the researcher is part of the group and can ask questions to understand responses on a deeper level. Third, focus groups allow respondents to build on

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Note: This project was supported by grant number R03 HSO9542 from the Agency for Health Care Policy and Research.

the responses of other group members. Fourth, the results of a focus group are easy to understand and do not require complex statistical analyses (Stewart, & Shamdasani, 1990; Vaughn, Shay, Schumm, & Sinagub, 1996).

Focus groups are a recommended technique for program evaluation, to assess the barriers to and benefits of treatment (Straw & Smith, 1995). We conducted focus groups with different stakeholder groups (e.g., students and teachers) because we were interested in learning more about similarities and differences in their perceptions. Looking at similarities and differences in stakeholder group responses to questions in the aforementioned areas was an important goal of this study. We also wanted to examine a wide variety of suggestions, which is another reason for surveying different stakeholder groups.

Method

Participants

The perceptions of high school students receiving and not receiving mental health services, teachers, therapists, administrators, and health care staff were examined. Participants were recruited at three urban high schools. Most of the students enrolled in these schools were African-American (about 90%) and were from low-income families.

A total of 51 students participated in 8 focus groups. Female students ($n = 34$) participated in one of 5 groups; 21 were receiving treatment and 13 were not in treatment. Seventeen males participated in 3 groups; 4 were not receiving treatment. Students ranged from 14 to 19 years in age and were in grades 9 through 12, with some seniors who were in their fifth year.

Thirty-eight adults participated in seven groups for teachers, therapists, health care staff, and administrators. Nine adults were males and 29 were females. Teachers, guidance counselors,

student advocates, and teachers who were department chairs ($n = 15$) participated in two groups. Their years of experience in high schools ranged from 1 to 20 years. One group of health care staff was conducted ($n = 4$); years of experience in school health for staff ranged from 4 to 10 years. Administrators ($n = 9$, including principals and assistant principals) participated in one of two focus groups; experience for this group ranged from 2 to 18 years. Two groups were held for 10 therapists. Therapists were social workers, psychologists, psychology interns, and practicum students. Social workers and psychologists had 1 to 30 years of experience in the field.

Procedure

Focus groups, consisting of participants from each stakeholder group, were conducted to investigate stakeholder perceptions about: ways to improve service delivery, quality of care, treatment outcome (e.g., changes for students, family, school and community), and how to reach more youth in need of therapy. The focus group script was adapted from information presented by Vaughn, Shay-Schumm, and Sinagub (1996).

Group discussions were transcribed and qualitative analyses were conducted to document important themes. Our goal was to develop a customized dictionary of categories for questions, within which relevant themes are presented (see Tables, Stewart, & Shamdasani, 1990). This instrument defines the purpose of the activity (i.e., "to learn how to improve the therapy services delivered at your high school); provides a set of 'rule' to ensure open discussion (e.g., taking turns to speak, respect for each person's opinion, permission to disagree, etc); discussed confidentiality; and provides sample questions for the facilitator.

Results

Findings are presented in Tables 1 through 5. Table 1 presents stakeholder views about the positive aspects of treatment. Females receiving mental health services reported that they preferred a good listener, who is caring, understanding, and respects their confidentiality. Administrators felt positive about successful outcomes related to participating in treatment such as improved coping with family problems. Teacher groups mentioned several issues, among these was the importance of accessibility.

Table 2 presents negative aspects of treatment. Most stakeholder groups thought that missing classes on a regular basis was a drawback. All groups believed that a critical shortage of staff negatively impacts students in that the intensity of treatment that is needed is not always readily available. Several other interesting themes emerged. For example, adolescents value a therapist who does not take notes during sessions. Both teachers and health center staff would prefer to receive more information about the therapy process for students they have referred.

Table 3 presents data about the barriers to obtaining treatment. For instance, all groups mentioned the stigma of “being crazy if one participates in therapy” as a barrier. For females in treatment, concerns that the student’s confidentiality would not be maintained were viewed as a barrier to participating in treatment. In the area of funding, the most important issue was the critical shortage of staff (e.g., “one full-time mental health therapist for 1400 students”). This becomes a negative aspect about the program as well as a barrier when therapists can not meet the daily needs, in terms of aiding students in crisis and those in need of therapy.

Table 4 presents stakeholder ideas about ways to improve services. To illustrate, teachers and health center staff thought it would be important to

develop advertisements about the benefits of participating in therapy to reduce the impact of the stigma. Again, adding more staff to address the critical shortage of personnel emerged as a key issue for all groups. Therapists believed that if “in-school” rather than “outside-school” suspensions were utilized, it would facilitate their treatment of students with disruptive and oppositional behaviors. They reported that suspending students interrupted treatment and was reinforcing, in that it permitted students who disliked school to stay away. Therapists also felt that they could function more efficiently with administrative support, because writing passes and other paperwork detracts from time that could be spent in clinical practice.

Table 5 documents interesting information about treatment outcomes. For instance, in the academic realm, female students in treatment, administrators, and health center staff endorsed participating in therapy as a method for increasing school attendance and improving grades. As might be expected, all groups believed that participation in treatment was a method for improving self-esteem. Students in treatment (male and female) mentioned that being in therapy improved their attitude. This was a general term for improving their outlook on life and increasing their ability to think positively about challenging life situations. Interestingly, females in treatment thought that being in therapy helped them to avoid peers in the neighborhood who were engaging in risk-taking behaviors (e.g., substance abuse, violent behavior).

Discussion

Results from this study have been useful in providing suggestions for improving services, documenting program strengths, and offering guidelines for enhancing program development. Program strengths included caring therapists, who were accessible, as well as positive results related to participating in treatment (e.g., increased self-esteem,

decreased substance abuse). Examples of negative aspects and barriers included interruptions during sessions, the stigma attached to those who see therapists, and missing classes regularly. Problems typically were associated with the treatment process, therapist behavior, service delivery, and systemic issues (school and funding problems). Some areas for improving services were increasing consumer education, increasing the visibility of the therapist at school, and providing services during the summer. Participating in counseling resulted in many personal changes and some change at other levels: school, peers, family, and neighborhood.

Stakeholder groups did show some consistency in their responses. For instance, stakeholders consistently indicated that more therapists are needed and that there is a critical shortage of therapists in these three schools. Additionally, all groups reported that increased self-esteem typically results from participating in treatment. Moreover, all mentioned that the “stigma of being crazy” associated with treatment impedes student participation in therapy.

On the other hand, inspection of the tables also demonstrated unique response patterns. To illustrate, therapists and administrators may have opposing goals, as administrators want therapists

Table 1
Dislikes: Negative Aspects of Treatment

Categories	Themes	Stakeholder Groups
Therapist Characteristics	Get too personal too fast	STF
	Asking questions student can't answer	STM
	Breaking confidentiality	STM
	Taking notes during session	STF, STM
	Saying "What do you think?"	STF
Service Delivery Issues	Ugly Room	STF
	Interruptions/Lack of Privacy	Ther, STF
	Therapist not on school team	Ther, T
	Too much paperwork	Ther
	Sessions too short	STF
	Need mental health rounds	T, HS
	Increase services for students with behavior problems	A
	Missing classes regularly	STF, STM, Ther, T
	Psychologists are too costly	A
	Shortage of staff	All
Treatment Issues	More focus on internalizing problems	Ther, T
	Refer before crisis point	Ther
	Suspensions	Ther, A
	Attend Special Education Team Meetings	T
	Lack of boundaries around session	Ther
	Stigma of being "crazy"	All
	Therapist not present daily	STF, HS
	Boring	STF
Staff turnover	STF	

Note: Abbreviations for stakeholder groups: female students in treatment (STF), male students in treatment (STM), therapists (Ther), teachers (T), administrators (A), health center staff (HS), and All groups.

Quality Assurance

to support their decisions about “out-of-school” suspensions, while therapists may argue for “in-school” suspensions. Furthermore, teachers and health center staff may want more information about student progress in therapy than therapists feel comfortable providing to them. Ethical considerations also limit what types and amount of information therapists can share with other professionals.

In summary, results provide accountability data, documenting the positive impact of ESMH programs for high school youth. Increased funding to hire additional staff and provide services during the summer months was cited as a critical need. Participating in school mental health services changed students’ lives on many levels. More information is needed about how participating in therapy can change students’ lives within their neighborhoods and communities. One shortcoming for this study was that input from males not receiving treatment and parents was not presented.

Focus groups are an inexpensive method for evaluating the impact of ESMH programs and allow evaluators to record information about the efficacy of treatment and methods for enhancing the quality of services.

Table 2
Treatment Barriers: Reasons Why Attending Therapy is Difficult for Students

Categories	Themes	Stakeholder Groups
Treatment Issues	Stigma of being "crazy" Need school-based psychiatry Therapist not present daily	All A STF
Areas of Concern for Students	Duty to warn Therapist gives bad advice Break confidentiality Shyness Students come late for appointments Students prefer therapist with same ethnicity	STF SF, STF, A STF STB, Ther Ther, A
Systems Issues	Students don't receive passes Missing classes regularly	STF, A, Ther, T All
Political or Funding	Shortage of staff	All
Concerns	Therapists can't meet daily needs	A

Note: Abbreviations for stakeholder groups are: female students in treatment (STF), male students in treatment (STM), female students (SF), therapists (Ther), teachers (T), administrators (A), health center staff (HS), and All groups.

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Table 3
Likes: Positive Aspects of Treatment

Categories	Themes	Stakeholder Groups
Therapist Characteristics	Pleasant and friendly	SF, STF, T
	Approachable	T
	Good listener	STF, T
	Caring, understanding	STF, A
	Shares information about self	STF
Role of Therapist	Accessible	T
	Confidentiality	STF
	Someone to talk with	SF
Student Ideas	Food	STF
	Get out of going to class; taking tests	STF, STM
Positive Results	Reduce depression	STF
	Cope with family problems	SF, STM, A
	Emotional release	STF, STM, A
	Reduce student-teacher conflict	SF, STF
	Stress reduction	STF, STM, A
	Work through peer conflict	STF
	Increase self-esteem	SF
	Learn problem-solving skills	STM
	Learn assertiveness	STF
	Learn responsibility	SF
	Helps you pass your classes	STF
Reduce aggressive behavior	SF, STF, STM	

Note: Abbreviations for stakeholder groups are: female students in treatment (STF), male students in treatment (STM), female students (SF), teachers (T), and administrators (A).

Quality Assurance

Table 4
Suggestions for Improving Services

Categories	Themes	Stakeholder Groups
Education or Training	Limits of Confidentiality	Ther
	Need mental health rounds	Ther
	Educate parents about mental health issues	T
	Teen parenting	A
	Substance abuse	A
	Teens who are sexually active	A
	Advertise to reduce stigma	T, HS
Funding Issues	Shortage of staff	A, T, HS, Ther
	Need more office space	Ther
	Advertise; public service announcements	T, HS
	Provide services over the summer	Ther, A
	Therapy available every day	Ther, T
	Hire several therapists, representing all ethnic groups and males and females	Ther
Political	Utilize in-school suspensions	Ther
	Political change resulting in increased funding	Ther
	Enroll all students in health clinic	T
Service Delivery	Administrative support with paperwork	Ther
	Increase service for students with behavioral problems	A
	Involve family in treatment	T
	Protect student confidentiality	Ther
	Increase therapist visibility	Ther
	Support mental health needs of teachers	T

Note: Abbreviations for stakeholder groups are: therapists (Ther), teachers (T), administrators (A), and health center staff (HS).

Table 5
How Participation in Treatment Changes Students' Lives

Categories	Themes	Stakeholder Groups
Academic Changes	Decrease truancy	Ther
	Increase attendance	STF, A, HS
	Increase grades	STF, S, HS
	Decrease drop-out rate	SF, STF
Personal Changes	Increase self-esteem	All
	Increase social and coping skills	Ther, A
	Improve personal appearance	HS
	Decrease in aggressive behavior	STF
	Increase motivation to do things	STM
	Decrease substance abuse	STF
	Stress Reduction	STF
	Fewer health center visits for medical reasons	HS
	Increase self-worth/new direction in life	SF, Ther
	Become friendlier, more out going	HS
	Improve your "Attitude" (increase positive outlook)	SF, STF, STM
Develop goals for future	Ther	
Learn to care for own children	STF	
Interpersonal Changes	Improve family relations	SF, STF, HS
	Work through peer conflict	SF, STF, STM
	Help with relationships (e.g., boyfriends)	STF
	Reduce student-teacher conflict	STM
Neighborhood Changes	Get along with people in neighborhood	STM
	Avoid negative influences in neighborhood	STF
	Need for therapists to go out into community	SF, STF
Therapist's Role	Emotional outlet	STM, Ther, A
	Connect with trustworthy adult	Ther

Note: Abbreviations for stakeholder groups are: female students in treatment (STF), male students in treatment (STM), therapists (Ther), teachers (T), administrators (A), health center staff (HS), and All groups.

Interpreting School Satisfaction Data from a Marketing Perspective

Introduction

Consumer satisfaction surveys have been a standard tool of mental health program administrators for a number of years. The results of these surveys are most commonly used to provide evaluative information on the quality of the services provided. Interpreted from a marketing perspective, the information provided by consumer satisfaction surveys also can help public mental health program administrators understand and be successful in the increasingly competitive market place. In Vermont, public schools have become an important purchaser of mental health services. This summary will discuss the results of a customer satisfaction survey of Vermont public schools from this marketing perspective (for more detailed survey results, see Pandiani & James, 1997).

The Survey

During January of 1997, a three-page questionnaire was mailed to the principal of every public school in Vermont. Six weeks later, a follow-up questionnaire was mailed to schools that had not responded. The survey included questions about the need for mental health services, the services that were received, satisfaction with the services, and the services schools wanted. Questionnaires were coded to allow researchers to link the survey responses with other information about the schools and the service areas.

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Completed questionnaires were received from 77% of Vermont's 329 elementary, middle, secondary, and K-12 schools. Elementary and middle schools had the highest response rates. Secondary and K-12 schools responded to the questionnaire at slightly lower rates. Principals and guidance counselors were the most likely to complete the questionnaire (about 50% each) and special educators were also well represented. From a marketing perspective, these results suggest that it is possible to obtain useful information from a significant proportion of public schools.

Results

Treated Prevalence of Emotional/Behavioral Disorders (The Market)

More than 3,700 students received services for an emotional/behavioral disorder during the 1996-97 school year at schools that responded to those questions (5.6% of all students). Almost 3% of the total student population had an Individualized Education Plan for an emotional/behavioral disorder; another 3% of all students received instructional support because of an emotional/behavioral disorder. Secondary and K-12 schools reported the highest treated prevalence of emotional/behavioral disorders (7.1% and 6.9%, respectively) followed by elementary schools (5.2%). Middle schools reported the lowest frequency of students (4.4%) receiving support for emotional/behavioral disorders (see Figure 1).

From a marketing perspective, these results indicate that there is a substantial number of potential consumers of mental health services in Vermont schools. Growth potential is greatest in the elementary and middle schools. Current estimates of the prevalence of emotional disturbance in the general population of Vermont indicate that 6% - 8% of children aged 9-17 may be expected to have a serious emotional disturbance.

Comparison of this estimate to the treated prevalence rates found in this state indicate that there may be significant numbers of children in need of services (for more about prevalence estimates, see CMHS, 1997).

Providers of Mental Health Services (The Competition)

Almost all Vermont schools (94%) reported receiving mental health services. Community mental health centers (CMHCs) provided services to 83% of the schools. Approximately 40% of all schools received Medicaid funded mental health services through their local CMHC. Elementary schools were the least likely to receive services from a CMHC and the least likely to receive Medicaid funded services.

Other mental health providers were active in 79% of the schools. Most of these other service providers were private psychologists (75%). Private psychiatrists worked in about ten percent of the schools. School employees were described as providers of mental health services in about 10% of the schools. Elementary and K-12 schools were the least likely to receive services from other providers.

From a marketing perspective, these results indicate that CMHCs face potentially strong competition from private sector providers. The greatest potential for growth, and the least competition is evident in the elementary school sector. There is substantial potential for expansion of Medicaid reimbursed services. Again, this potential is greatest in the elementary schools.

Types of Service Received (Product Lines)

Among schools that reported receiving CMHC services, crisis services were the most frequently used, followed by consultation services, counseling, case management, home/school coordination, and testing and evaluation. Elementary schools

Mental Health Services in Vermont Schools

were less likely than other schools to receive crisis services, counseling, and case management. Elementary and middle schools received testing and evaluation services from their CMHC more often than other schools.

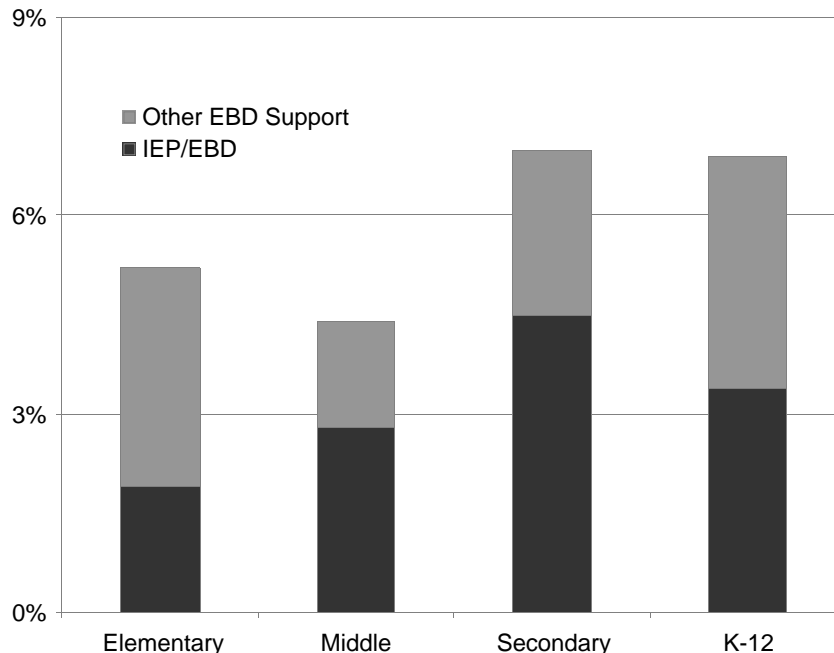
Of the 26 schools that did not receive CMHC services, 73% expressed a desire to receive one or more of the available services. Crisis services were the most wanted by all schools, followed by home/school coordination, consultation, and counseling. Case management and testing and evaluation were less often wanted.

Schools that received services from non-CMHC providers reported receiving testing and evaluation services most frequently followed by counseling services, consultation, and behavior management (see Figure 2).

Schools were also asked about the utilization of medication for behavioral disorders. Ritalin was reported as being used by 2.7% of the students at schools responding to the question. Middle and K-12 schools had the largest reported Ritalin utilization rates (3.5% and 3.4%, respectively), closely followed by elementary schools (2.9%). Secondary schools reported substantially lower rates of Ritalin usage; it should be noted that schools may be more likely to be aware of and/or dispense medication for younger children than for older children or adolescents.

From a marketing perspective, it is important to note that CMHCs were the only providers of three of the six 'product lines' examined, and that these were the products most wanted by the schools. This finding suggests there is a potential for expansion in these areas, with home school

Figure 1
Treated Prevalence of Emotional Behavioral Disorders



coordination appearing to have the greatest growth potential. Testing and evaluation presents an interesting strategic question to mental health program administrators. Other providers dominate this product line, and it is rated low among desired services. A community mental health center could choose to continue to compete in this area, or it could concede this market sector to the competition and focus on expanding in its areas of strength.

Consumer Satisfaction **(Customer Satisfaction)**

Overall, 72% of the schools that received CMHC services would recommend those services to another school in their district. Middle schools were the most likely to recommend CMHC services (94%), followed by elementary schools (72%), secondary schools (66%), and K-12 schools (43%). There was very little variation in levels of satisfaction with specific services received.

The Vermont consumer satisfaction survey also included three open ended questions that asked school personnel about their likes and dislikes regarding CMHC services. The availability and quality of services were the topics most often mentioned in response to these questions (75% and 72%, respectively). Issues related to the financing and the location of services were mentioned much less often (21% and 17%, respectively). All of these areas of concern tended to receive favorable and unfavorable comment in about equal proportion.

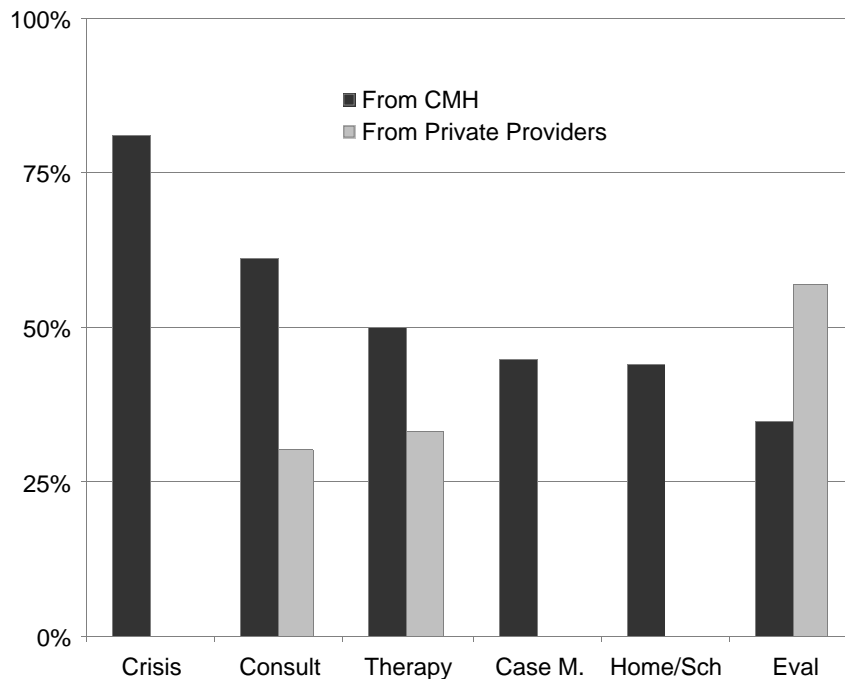
From a marketing perspective, these findings could be used to provide a focus for communication with schools. Communication that focuses on the availability and the quality of services is much more likely to be effective than communication that focuses on the fiscal aspects or location of services.

School Characteristics (Market Segmentation)

The ability to link questionnaire responses to information about the schools from other databases provided the opportunity to examine the relationship between school characteristics and patterns of service utilization. Our first questions focussed on the impact of the distance between a school and its local community mental health center on the likelihood that schools would receive or want services. Our second question focussed on the impact of the relative wealth of schools (per pupil expenditures) on the likelihood that the schools would receive services, or want services.

The schools that were located more than 15 miles from their regional CMHC were less likely to receive CMHC services than schools located near the CMHC. The most distant schools were also less likely to receive services from a non-CMHC

Figure 2
Services Received



Mental Health Services in Vermont Schools

provider. Finally, the most distant schools were the most likely to want CMHC services (see Figure 3).

From a marketing perspective, the results point clearly to a market segment that is underdeveloped and has a strong market potential. Schools that are distant from their local CMHC provide a significant opportunity for mental health programs to expand their presence in the school mental health services market.

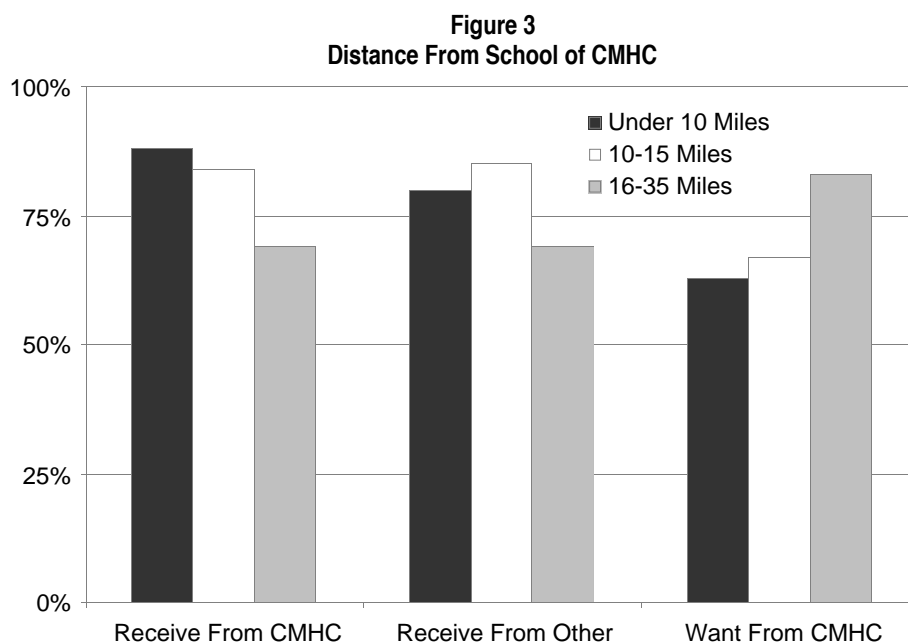
The schools with the highest per pupil expenditures were less likely to report receiving mental health services than the schools with lower per pupil expenditures. Only 71% of the schools with per pupil expenditures greater than \$6,000 reported receiving mental health services from their local CMHC as compared to 85% of schools between \$4,600 and \$6,000 and 87% of schools with expenditures less than \$4,600 per pupil. The schools with the highest per pupil expenditures were also less likely to receive services from other providers. Finally, the wealthiest schools were the least likely to want services from their local CMHC (see Figure 4).

From a marketing perspective, these results indicate that comparatively few wealthy schools are interested in obtaining school based mental health services from their local CMHC. Marketing efforts directed to these schools will probably not be particularly successful. Marketing efforts directed to poorer schools, however, offer a very real opportunity for expansion.

Conclusion

Responses to standard consumer/customer satisfaction surveys can provide valuable information to children's mental health program administrators. This information can help estimate the potential demand for services, suggest marketing strategies, and identify promising market segments.

In Vermont, responses to a survey of public school administrators indicated that there is a substantial unmet need for mental health services in schools. Expansion of existing "product lines" (especially home school coordination) has the



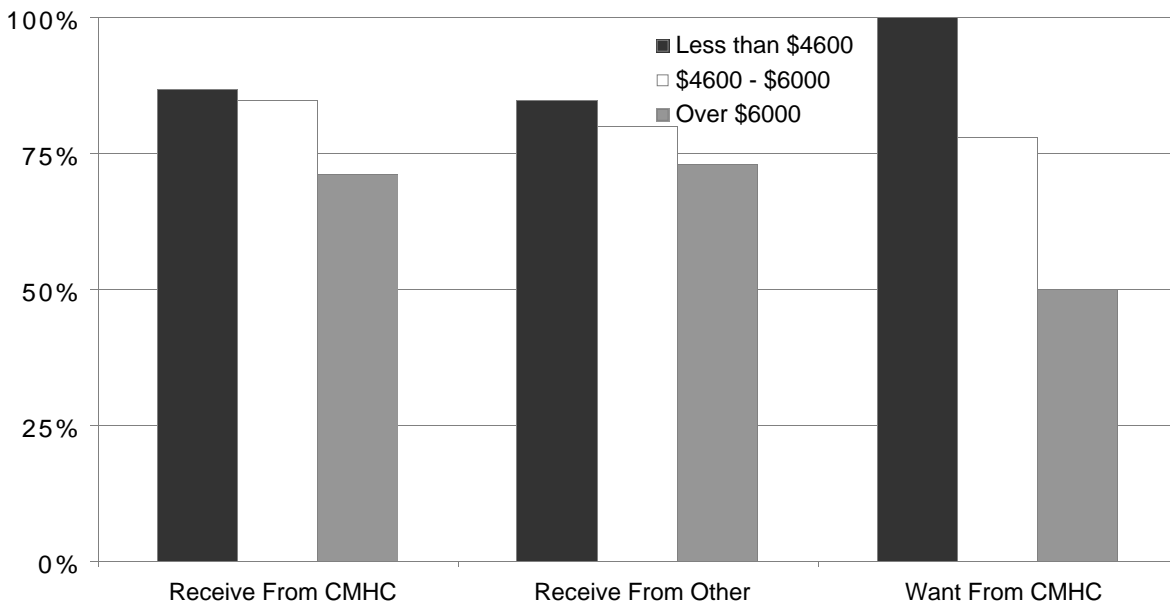
greatest potential of success. Marketing efforts that stress the quality of the services rather than their cost are more likely to be successful with local school administrators. Finally, the greatest potential for growth is in poorer school districts and outlying towns. Wealthier schools tend not to want the assistance of community mental health programs, and schools close to community agencies are likely to already be receiving services.

This project suggests that provider organizations that have already conducted consumer/customer surveys may obtain useful information about the market for their services from reanalysis of the data. This approach avoids the effort and expense of additional data collection. Organizations that are about to undertake a consumer/customer survey should consider the issues of marketing in their questionnaire design and analytical plan.

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Figure 4
Per Pupil Expenditure



School-based Systems of Care: Early Intervention and Day Treatment Examples from Illinois

Introduction

System of care initiatives led by mental health and child welfare agencies are returning youth to communities and preventing others from being placed outside their communities (Stroul, 1993; Epstein, Kutash, & Duchnowski, 1998). Concurrently, school-based mental health projects are encouraging collaborative partnerships and bringing social service options into school buildings. This has increased efforts to integrate system of care approaches through education programs in communities across the country. Changes in traditional service delivery models in mental health and child welfare agencies are prompting educators to partner with social service providers in addressing the comprehensive needs of youth and families. Restructured professional roles and changes in traditional program structures have been reported (Eber, Nelson, 1997).

In Illinois, components of a system of care have been established in a variety of school-based programs over the past 3-5 years. The Illinois State Board of Education (ISBE) has provided technical assistance (TA) and evaluation support to school districts involved in such innovations. Partnerships with mental health and child welfare providers have expanded the experiences of educators involved in school-based application of systems of care.

Beginning in 1995-96 school year, school districts interested in TA and evaluation support related to students with, or at-risk of developing, Emotional or Behavioral Disturbances

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(EBD) began collecting student/family outcome data. The state level TA/Evaluation team had assisted local stakeholders in defining evaluation questions and identifying components of the evaluation process which were appropriate for different sites. The intent was to support locally driven initiatives and design evaluation activities to address the questions and issues raised by the local stakeholders. Evaluation data have been collected in several sites where components of a system of care have been initiated for students with, or at-risk of, EBD. These sites included a mental health early intervention pilot in an elementary school setting, and a day treatment program established by a local school district. This summary discusses Time 1 and Time 2 data for two such sites from Illinois. Similarities and differences across the early intervention and day treatment provide insights about the needs for comprehensive approaches across school settings.

Method

Sites

Public school day treatment program. In September 1995, a school district in central Illinois developed a public school day treatment program for youth with EBD. This program was intended as an alternative to sending students to private day programs outside the school district and community. The intent was to improve student outcomes and return students more quickly and effectively to their neighborhood schools. Staff members were trained in strength-based wraparound approaches and incorporated these approaches into their individualized teams and plans for students and families. School-based social workers at the day treatment setting, who served as facilitators of child/family teams, were responsible for data collection. In addition to completing background information and the CAFAS these social workers facilitated the completion of family, teacher, and youth instruments (see Table 1).

Baseline data was collected April through May, 1996 on 30 students. Of these students, 57% scored in the clinical range on the CAFAS. In spring of 1997, the day treatment staff collected follow-up information on 26 of the initial 30 youth served in the public school day treatment program. Of those 26, 17 had moved to a less restrictive setting while nine remained in the program. At this point, the school district began raising questions about the students that continued to be sent to the out-of-community private day treatment settings and decided they wanted to pursue more information on these students. They also wanted to continue examining new placements into their public day treatment program. herefore, they added 50 new youth to the sample. They then added 50 new youth to the sample. These 50 youth were placed in either the above described public school day treatment program or in a private day treatment program. The school district wanted to examine similarities and differences in students in the public vs. private day treatment programs and monitor outcomes over time among both groups.

Data collected in the spring of 1997 included 26 of the initial 30 students along with 50 new youth added to this expanded sample (See Table 1 for total numbers for individual instruments. The number of instruments collected varies because it was not possible to obtain instruments for every youth). Ages ranged from 6 to 16 years, with a mean of 12.1 years ($n=37$) and 84.2% youth were male ($n=38$). About half were identified as African American (51.4%) and the other half as Caucasian (48.6%, $n=37$).

Early intervention site. An elementary school in Southern Illinois collaborated with a local mental health center to provide early intervention mental health services for children identified by teachers as at-risk of placement in EBD. These prevention activities were provided by a mental health therapist and included: individual and group counseling, recreational activities, consulta-

School-Based Examples from Illinois

tion to teachers and support to families. Baseline information was collected on 24 students through the winter of 1996-1997 and Time 2 information was collected on 14 students in the spring of 1997. (See Table 1 for total numbers of individual instruments. Like the day school treatment program sample, number of instruments varies). The average age of the youth was 9.8, ranging from 6 to 13 years old ($n=17$). Eleven of the youth were male ($n=17$), and 12 out of the 15 children were Caucasian.

Instruments and Analysis

The instruments used for both sites are identified in Table 1. The data were entered and tests were examined using the Statistical Package for Social Sciences (SPSS). These analyses examined both relationships between variables and changes over time. Descriptive statistics were used to provide basic information about the data. Relationships between variables were examined using correlational analyses, and cross-tabulation. Differences between groups were examined using independent t -tests, and cross tabulation. Changes over time in individuals' clinical scores were analyzed using paired t -tests, and examining changes for groups of individuals in educational placement categories or out of home placement status were examined by using cross tabulation.

Results

School-based Day Treatment

At the time of the Spring 1997 data collection for the expanded sample (public and private day treatment), almost one quarter (24%) of the youth were residing in a group or foster home placement under the guardianship of Illinois Department of Children and Family Services (DCFS). Thirty-five percent of the youth lived with one parent/guardian. Only 16% of the youth lived with both parents/guardians. Eight percent of the youth lived with a relative.

The majority of youth were identified as having a primary behavioral disability by parents/guardian (75%), social workers (95%), and teachers (90%). However, more social workers reported youth as having an emotional or behavioral disability than parents/guardians ($\chi^2 = 2.97$, $df=1$, $p=.081$, $n=31$) and teachers and social workers tended to agree ($\chi^2 = 10.37$, $df=1$, $p=.013$, $n=56$).

Parents reported that about half of youth had legal charges brought against them ($n=36$), while facilitators reported about one third of youth had legal charges brought against them ($n=56$). The majority of students had never been arrested with a conviction according to parent (8 out of 19) and facilitator (9 out of 48).

The most common youth risk factors reported by parents/guardian included: below grade level achievement (54%), frequent suspensions/expulsion/truancy (51.3%), and involvement with the legal system (41%), dangerousness to others (35.9%), history of substitute care (31%). Family risk factors reported by parents/guardians included history of family alcoholism (46%), unemployment (36%), and history of family violence (33%).

Differences between Private Day School and Public Special School. Public and private day school program data collected in spring 1997 were compared. There were no significant differences between students in a private day placement ($n=15$) and a public special placement ($n=25$) on the CBCL total problem score, internalizing, externalizing, and all sub-domain scores.

There were no significant differences between students in a private day placement ($n=23$) and those in a public special placement ($n=36$) on the CAFAS total score.

Youth served in the public day program ($n=36$) scored higher in the areas of Attention Problems ($p=.05$) and Aggression ($p=.07$) and Total External-

izing scores ($p=.08$) than youth served in a private day placement ($n=25$) according to teacher's ratings on the TRF.

Youth ratings of their aggressive behavior on the Youth Self-Report (YSR) were higher for youth in the special public school ($n=22$) than youth placed in the private day school ($n=21$; $p=.04$).

Mental Health Early Intervention Program

Data indicated that all of the youth lived with at least one parent, with the exception of one who lived with a relative ($n=16$). No youth had legal charges brought against them, or contact with the police as a result of a violation of the law. Twenty three facilitators indicated from a checklist the primary reasons for referral. These included: academic problems ($n=19$), non-compliance behavior ($n=17$), attention difficulties ($n=16$), poor peer interaction ($n=14$). Parents and facilitators

**Table 1
Instruments Collected at Baseline and Every Year Thereafter**

Instruments	Day School Program – Number Collected (Spring 1997)	Early Intervention Site – Number Collected (Winter 1996)
Instruments Completed by Parents/Guardians		
Background Information	38	17
Family Adaptiveness and Cohesiveness Scale (Olson, 1991)	35	15
Family Needs (Dunst, Trivette & Deal, 1988)	36	16
Services and Agency Involvement	38	17
Youth and Family Risk Factors	39	17
Satisfaction with Services	35	15
Child Behavior Checklist (Achenbach, 1991a)	40	17
Instruments Completed by Youth		
Youth Information Form	59	24
Youth Self-Reports (Achenbach, 1991c)	48	3
Instruments Completed by Teacher		
Educational Information Form	62	16
Teacher Report Form (Achenbach, 1991b)	61	16
Instruments Completed by Social Worker/Facilitator		
Background Information	61	23
Restrictiveness of Living Environment Scale (Hawkins, Almedia, Fabry & Reitz, 1992)	60	23
Services and Agency Information	61	23
Youth and Family Risk Factors	61	23
Child and Adolescent Functioning Assessment Scale (Hodges, Bickman & Kurtz, 1991)	60	24

School-Based Examples from Illinois

tors identified a history of family alcoholism/substance abuse as a family risk factor for 11 out of 24 families.

Twelve out of sixteen youth were placed in general education for 100% of the day ($n=12$), three youths enrolled in general education with consultation, and one youth attended a special education for less than 50% of the day. Nine of ten students maintained their educational placement from Time 1 (winter, 1996) to Time 2 (spring, 1997), and all of the youth attended school regularly at Time 1 and Time 2.

At Time 1, classroom functioning data was available on 15 students. Areas of difficulty included completing class assignments on time ($n=10$) completing homework ($n=10$), completing subjects with a passing grade ($n=9$), having friends ($n=9$), engaging in socially appropriate behavior with peers ($n=11$), and engaging in socially appropriate behavior in unsupervised settings ($n=11$).

Teachers reported that seven students needed academic assistance beyond that which was expected, and nine youth required behavioral interventions beyond the regular classroom routine ($n=16$). Generally, these students maintained their status of needing behavioral interventions beyond the regular classroom routine from Time 1 to Time 2.

Teachers reported that just over half of the youth had academic performance that was not commensurate with their ability (7 out of 13).. However, the majority (7 out of 11 youth) was performing at average to above average levels, and four of the youth were performing at a below average level.

CBCL ratings on six of the youth fell within clinical ranges on the Total Problems Score ($n=17$). Five fell within clinical ranges on the Internalizing domain, and four fell within clinical ranges on the externalizing domain of the CBCL. The most

frequently reported syndrome scale falling within clinical ranges was Social Problems. There was a decrease that approached significance in attention problems as rated by parents/guardians on the CBCL from Time 1 ($M=6.00$) to Time 2 ($M=5.14$), $p=.078$.

CAFAS results at Time 1 showed that 42% of the youth's scores fell within clinical ranges ($n=24$) with an average of 32 and a range of 10-60. The average total CAFAS score at Time 2 was 15, with scores ranging from 0 to 30, with lower scores indicating better functioning ($n=15$). No youths scored in the clinical range at Time 2.

Sixteen Teacher Report Forms (TRF) were completed at Time 1. Half of the ratings from teachers ($n=8$) fell within clinical ranges on the externalizing domain, while one student had a score that fell within the clinical range on the internalizing domain. Nine (56.3%) of the youth had scores that fell within clinical ranges on the Total Problems domain. TRF forms for eleven youth were completed at Time 2. Two teachers' ratings fell within clinical externalizing ranges and internalizing ranges. Three teachers' ratings fell within clinical ranges on the Total Problems domain.

Discussion

In examining differences between youth in public and private day school programs, parents/guardians do not appear to differ in their ratings of emotional and social functioning nor were there differences in clinical functioning reported by clinicians. However, teachers and youth reported higher rates of aggressive behavior among the public school group. This was an interesting finding since one might expect that the students sent outside of the community (i.e. private day treatment settings) might be more difficult to manage. District personnel report that they suspect a lack of clear parameters or decision-making mechanisms for when to send students to more

restrictive out-of-district placements contributes to this finding. More investigation is needed to further examine these differences.

The data on successful returns to general education settings from the public day treatment settings was discussed with district administrators. The public day-treatment setting successfully returned over 50% of the students to less restrictive settings (with supports from the day treatment setting) in the first year. District personnel reported that the students in the newly developed public school program were returned to regular education settings faster and more effectively than students placed in the out-of-community private settings in the past. They began discussing possible program restructuring that may support more successful outcomes for greater numbers of students with EBD across the district. The experiences with this new program has suggested to the administrators that they may be able to improve school success for students with EBD by restructuring service options within their district settings. These discussions have led to a review of all district options for students with EBD (including those in self-contained classrooms in regular buildings) by district administrators. The restructuring of building-based options for service delivery that includes family supports, child-family team facilitators and more therapeutic options are being explored.

Comparing the students from the prevention sample and the day treatment sample (combined public and private) provides opportunity for school-based program development discussion as well. Perhaps one of the most interesting findings is that although the samples were quite different with respect to age, restrictiveness of educational setting, and living situation, the risk factors reported and level of emotional and behavioral difficulty were remarkably consistent. For example, both day treatment and early intervention youth had multiple risk factors, and the most frequently reported risk factors included below grade level achievement and history of family alcoholism. The effects of the

supportive approaches allowed children and youth (both prevention and day treatment group) to either move to less restrictive educational settings or maintain their current educational setting despite their level of clinical involvement. This suggests two issues for consideration. The first issue is that Improvement in clinical functioning may not be the only predictor of educational success. Factors such as teacher and family support may prove to be just as important. The second issue raised is the potential effect of early intervention through school-based mental health service delivery that actively supports families, teachers, and students. Future evaluation activities may help clarify the relationship of these factors to the children and youth outcomes over time.

Initial analyses from these two school-based sites provide implications for future evaluation activities and implementation of system of care approaches in schools. One clear implications from an evaluation perspective is the strength of using participant driven evaluation if the data is to be useful for program development. Both of these school based sites determined their evaluation questions, reviewed instruments, made modifications to instruments, collected data, and played an integral role in the evaluation process. Because of this, we had higher rates of instrument completion and accuracy in the data than many of our past evaluation efforts. Also, the data has been used locally to stimulate program development and has lead to expansion of system of care-based options in both locations

School-Based Examples from Illinois

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Forging Partnerships with High-Risk Families through School-Based Mental Health Services

Introduction

Urban schools provide a pivotal platform from which to launch mental health services, particularly for high-risk youth and their families (Dryfoos, 1994). In a descriptive study evaluating the impact of an intensive, school-based mental health program, risk status was established by evaluating information across three important domains: community, family, and individual child. A high incidence of risk factors was found across all three domains in a referred sample of urban elementary school students. Intensive family focused interventions and parental collaboration were determined to be essential treatment targets for addressing multiple risk factors and ultimately improving academic performance in this group of referred children.

Method

Site and Participants

The Cleveland Public School system is the largest school system in the country ever to be taken over by a state board, and it has some of the lowest levels of educational achievement as measured by graduation rates, drop out rates and proficiency scores. The target population in this study is a group of students referred for school-based mental health services and their families at an elementary school in Cleveland, Ohio (K through 6th grade). Of this sample of 42 students, 88.1% were male, 11.9% female, and 100% were African-American. They ranged in age from 5.5 to 11.8 years with a mean age of 8.9 years.

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Children who are experiencing the most severe emotional and behavioral difficulties are referred for school-based mental health services by their teachers and principals. At the time of this study, 42 high-risk children and families were formally enrolled in services, with numerous other children receiving consultations. A private, non-profit agency provides intensive mental health and case management services to these children and families. Five full time staff are onsite either in the school or the community providing the following array of services: diagnostic assessment, individual and group therapy, in-home family therapy, family support groups, comprehensive case management, summer therapeutic programming, and training and consultation to the teachers.

Overall, the goals of the program are: (1) increase family involvement and stability in support of their child's educational achievement, and (2) improve the child's social and behavioral functioning. Continuity of services is maintained by providing intensive summer programming in order to build upon treatment gains made throughout the school year and to enhance social skills and peer relations necessary for successful school performance. At present time, there appears to be only a few mental health programs this intensive operating within a large urban school setting.

Data Collection

The data collected for this study included client demographic information, diagnostic assessment information regarding child and family history, standardized ratings of child emotional and behavioral functioning, and client satisfaction data. The standardized ratings of child emotional and behavioral functioning were obtained by using a reliable and valid behavioral rating instrument called the Devereux Scales of Mental Disorders (DSMD). The DSMD (Naglieri, LeBuffe, & Pfeiffer, 1994) is a 110-item behavior rating scale designed to evaluate behaviors related to psychopathology in children.

The DSMD can be completed by parents or teachers with item content based primarily on the DSM-IV. The DSMD has ten behavioral indices: a total score, three composite scores, and six subscale scores. The composites include internalizing—comprised of depression and anxiety subscales, externalizing—consisting of conduct and attention subscales, and critical pathology—consisting of autism and acute problems subscales. T-scores are used in reporting all scale scores with higher scores reflecting more severe psychopathology. Total score reliability coefficients range from .97 to .98; composite score reliability coefficients range from .86 to .98; and individual scale reliability coefficients range from .70 to .99. The total test T-score of 60 has been empirically determined to be the best cut-score for differentiating clinical from non-clinical samples. Scores between 60-65 are considered to be within the elevated range of clinically impaired behavioral functioning. Both parents ($n=40$) and teachers ($n=32$) were asked to complete DSMD's at the beginning and end of the school year.

Results

Community and Family Risk Factors

The neighborhoods in which the children in this sample reside were compared by census tract to their urban (city of Cleveland) and suburban (Cuyahoga county) counterparts on six measures of community risk (see Table 1; CANDO, 1996). The school clearly draws children and families living in high-risk communities as evidenced by the fact that these neighborhoods had higher ratings across all six significant risk factors in comparison to the broader surrounding communities. In addition, intake and diagnostic assessment information revealed that an overwhelming majority of the families (i.e., 83%) of the referred children lived in poverty, above and beyond the already high poverty levels for their neighborhoods (i.e., 48%).

School-Based Mental Health Services

Further diagnostic assessment information revealed that less than 10% of the families were intact with both biological parents, and almost 10% of the youth were in foster care. Nearly 60% of the children's biological parents or current caretakers have experienced a significant substance abuse problem, and close to half have some history of criminal incarceration (also including the children's older biological siblings).

Child Functioning

In regards to child emotional and behavioral functioning, as measured by the DSMD total score, the mean parent rating was 60.64. For the conduct and depression subscales, the mean parent ratings were 64 and 61.8 respectively. Teachers, on the other hand, rated children higher, with a mean total score of 63, and conduct and depression ratings of 66.3 and 65.2 respectively (see Figure 1). On the DSMD total score, teachers rated fifty-nine percent of the school sample above the clinical cut off score of 60, and 25% were in the very elevated range above 70. For the conduct subscale, 78% of the sample were above the cut off score of 60, and 31% were above

70. For the depression subscale, 71% of the sample were above 60, and 28% above 70.

The mental health needs of the referred children in the school-based sample are substantive and challenging to treat, and particularly problematic as observed by their teachers. The combination of elevated internalizing (depression) and externalizing (conduct) scores raises numerous concerns about the impact of family and environmental risk factors (Crespi, 1996). For children with severe emotional disturbances, including those in our school sample, heightened aggressiveness and depressive symptomatology (i.e. social withdrawal) may represent significant obstacles to successful adaptation.

Outreach & Parent Involvement

In other studies (Bien & Bry, 1980; Blechman, Taylor, & Schrader, 1981), parent involvement has been shown to be beneficial in improving academic effort, grades, and attendance of students evidencing low commitment to school. In order to quantify parental involvement, average parent contacts

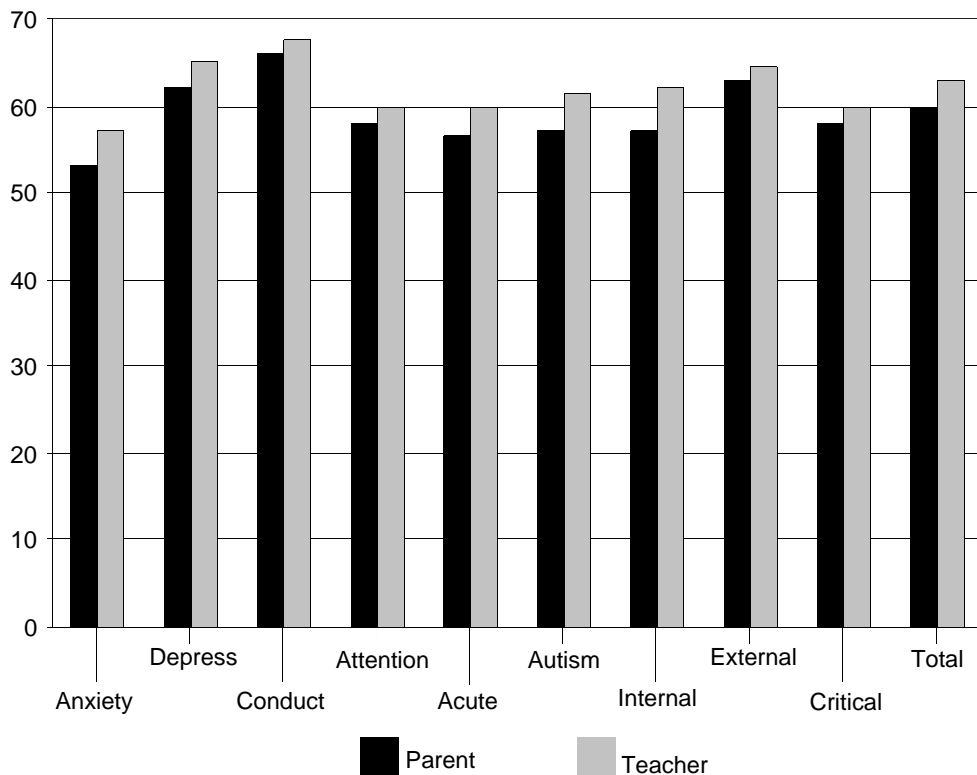
Table 1
Incidence of Community Risk Factors

Risk Factor	Neighborhoods in School Sample	City of Cleveland	Suburbs
% Below Poverty Level (1989)	32.0 %	29.0 %	5.0 %
% of 5-11 Year Olds Below Poverty Line (1989)	48.0 %	43.3 %	7.6 %
# of Infant Deaths/1000 Live Births (1994)	21	16	10
% Medicaid Recipients (1995)	37.2 %	30.0 %	4.7 %
# of Substantiated Abuse Cases/100,000 Children (CCDHS Data-1994)	4270	3880	907
# of Violent Crime Offenses/100,000 Juveniles (Juvenile Court Data-1995)	593	542	128

(telephone & face to face) were tracked by school-based staff during a sixteen-week period from 2/10/97 to 5/26/97. The program averaged 38 children during that time period and totaled 803 contacts (i.e. face to face or phone) for an average of 1.3 family contacts per child per week. Engaging and forming therapeutic relationships with parents and caretakers are critical program components to this intensive treatment model. By increasing the stability of the families, caretakers and parents are more able to nurture and promote the educational achievement of their children. Due to aggressive outreach efforts, parental involvement in the school-based support groups for referred children exceeded that of the school-wide PTA (Parent/Teacher Association) meetings.

At the end of the school year, both the parents and children in the program (N=38) completed a satisfaction survey (Rouse, MacCabe, & Toprac, 1995). There were two versions of the survey with similar questions and slightly different wording depending on if the respondent was a child or caretaker. There were approximately 30 child respondents and 34 parent/caretaker respondents (out of a total of 38). Overall, 91% of the parents or caretakers were happy with the services provided through the school-based mental health program (see Figure 2). Approximately 73% felt that their child was doing better since starting the program, and they were happy with the progress that their child and family made. The children evidenced similar positive responses on their portion of the

Figure 1
DSMD Ratings For School Sample



School-Based Mental Health Services

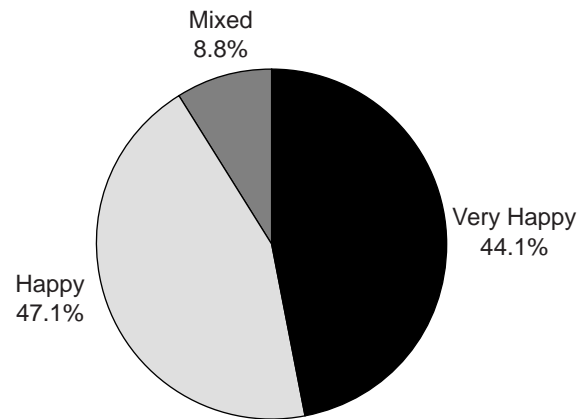
client satisfaction surveys. Over 96% of the children were happy or very happy with the services. About 63% of the children reported that their families were doing better since starting the program, another 17% said their families were about the same, and 3% said their families were much worse.

Discussion

The risk factor information from this study is alarming both in its scope and severity. Family focused interventions and parental collaboration appear to be essential treatment targets in order to simultaneously address the multiple domains encompassing the individual child, family, community, and school. Of particular concern were the high levels of depressive symptomatology reported by both parents and teachers in this sample of children who were referred for overt behavioral problems. One interpretation of this finding is that for a substantial portion of students, depressive symptomatology may be a response to the high levels of risk exposure, and consequently, may underlie or contribute to the disruptive behavior. Therefore, interventions that can simultaneously target the depressive symptomatology may yield improvements in the disruptive behavior. This supports the importance of using a family focused and community based approach, in combination with school and classroom based interventions. One appeal of this kind of strategy is that many of the interventions are strengthened by the fact that they target risk factors implicated in a range of disorders, including drug abuse, antisocial behavior, delinquency, and later adult criminality.

Results of this study confirmed that effective parental collaboration can be achieved through intensive outreach efforts using a school-based model. We discovered that many of the families that were engaged in the school-based model were reluctant to follow through with traditional

Figure 2
Q1. How did you feel about the services?



outpatient mental health referrals. In addition, high levels of both parent and child satisfaction were achieved through the use of this model. A major deterrent, however, in providing more family-based community treatment was the tremendous need for mental health staff to assist teachers in the classroom environment with behavior management issues. When children, families, schools, and communities are beleaguered by the accumulation of serious psychosocial risk factors, the urgency to provide school (i.e. classroom) versus family-based interventions can be daunting. Succeeding in both of these important domains will ultimately be necessary for academic achievement.

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An Evaluative Study of Children's Day Treatment Using the Preschool Behavior Rating Scale

Introduction

Children's day treatment (CDT) programs typically provide intensive psychosocial intervention with children aged four to seven years. Many diagnoses are represented among CDT clientele, including communication disorders, pervasive developmental disorders, attention-deficit-hyperactivity disorder, disruptive behavior disorders, attachment disorders, elimination disorders, post-traumatic stress disorder, and mood disorders. CDT programs are designed to enhance self esteem, improve social functioning with peers and adults, increase developmental competence in areas of language, cognition, perceptual skills and motor skills, and to facilitate improved family functioning.

Research has established a link between problematic childhood peer relations and adjustment difficulties in adolescence and adulthood (Kupersmidt & Coie, 1990, Parker and Asher, 1987). Poor relationships with peers in early childhood are related to later emotional and mental health problems (Cowen, Pederson, Babigian, Izzo, & Trost, 1973). Peer relationships have special qualities that are not likely to exist in adult-child relationships and that may contribute in important ways to the child's social development (Kemple, Speranza, & Hazen, 1991). Researchers have recognized that preschool children's understanding of emotional expression, cooperation, prosocial behaviors and use of conversational skills affect the level of acceptance they receive from peers. Acceptance by peers can in turn affect a child's interest in learning, interacting with others and participating in prosocial activities.

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One principle underlying CDT is that social skills can be modeled and taught by an adult, but must be practiced with peers. The purpose of this evaluative study was to examine the outcomes of an ongoing CDT program in operation at a behavioral health treatment center in the Midwest. The goals of this analysis included determining: (1) the extent to which clients improved in social functioning, and (2) if there was an overall increase in age-appropriate behaviors.

Method

Admission and discharge data were obtained for 49 clients from 1993 to 1996. Data were obtained from 27 clients in 1993-94 and 22 clients in 1995-96, which essentially represents the entire population served for those periods.

Children in the program meet four days a week for three hours a day. A maximum of ten children participated in CDT at any given time, with the bulk of the intervention being delivered by two therapists and one assistant. A child psychiatrist observed the children in group at least monthly and participated in weekly staff meetings. Individual treatment plans are developed for each child with specific treatment objectives in the areas of behavior, communication, socialization and pre-academics. Treatment objectives are updated as needed in weekly staff meetings. Treatment needs are addressed in a highly structured environment through therapeutic play/milieu therapy, body movement activities, art therapy, music, social/emotional theme groups, pre-academics, and behavior modification. The average length of stay in the program for the evaluation period was 261 days.

The primary outcomes instrument utilized was the Preschool Behavior Rating Scale (PBRS), which is a standardized, empirically derived, well-normed instrument used to measure children's preschool behavioral skills in psychomotor,

cognitive, and social arenas (Barker & Doeff, 1980). This instrument provides information about children's preschool behavioral skills and indicates whether their skills are typical, questionable, or atypical compared to other children of the same age. Skills are assessed in each of the following areas: coordination, expressive language, receptive language, environmental adaptation, social relations, and global functioning (a summation of previous subscales). It should be noted that the PBRS controls for the threat that the natural maturation of children may pose to internal validity through the use of a classification table, which allows for judgments (i.e., typical, questionable, and atypical) to be made by taking into account the age and sex of each child. Norms are based on 6-month age intervals for boys and girls. In this study, children were placed into one of the above categories on each subscale at admission and again at discharge.

Table 1
Signed Rank Results on PBRS Utilizing Data from CDT Admission and Discharge

PBRS Scale	Wilcoxon Mean		
	z Score	Rank	p Value
Expressive Language	$z = -5.3564$	20.73	$p < .001$
Receptive Language	$z = -6.0927$	25.00	$p < .001$
Environmental Adaptation	$z = -5.7767$	22.50	$p < .001$
Social Relations	$z = -5.7767$	22.50	$p < .001$
Language Skills	$z = -5.9062$	23.50	$p < .001$
Socialization Skills	$z = -5.9683$	24.00	$p < .001$
Psychomotor Skills	$z = -5.4424$	20.00	$p < .001$
Coordination	$z = -4.5045$	15.57	$p < .001$
Total Score	$z = -5.7767$	22.50	$p < .001$

Children's Day Treatment and PBRS

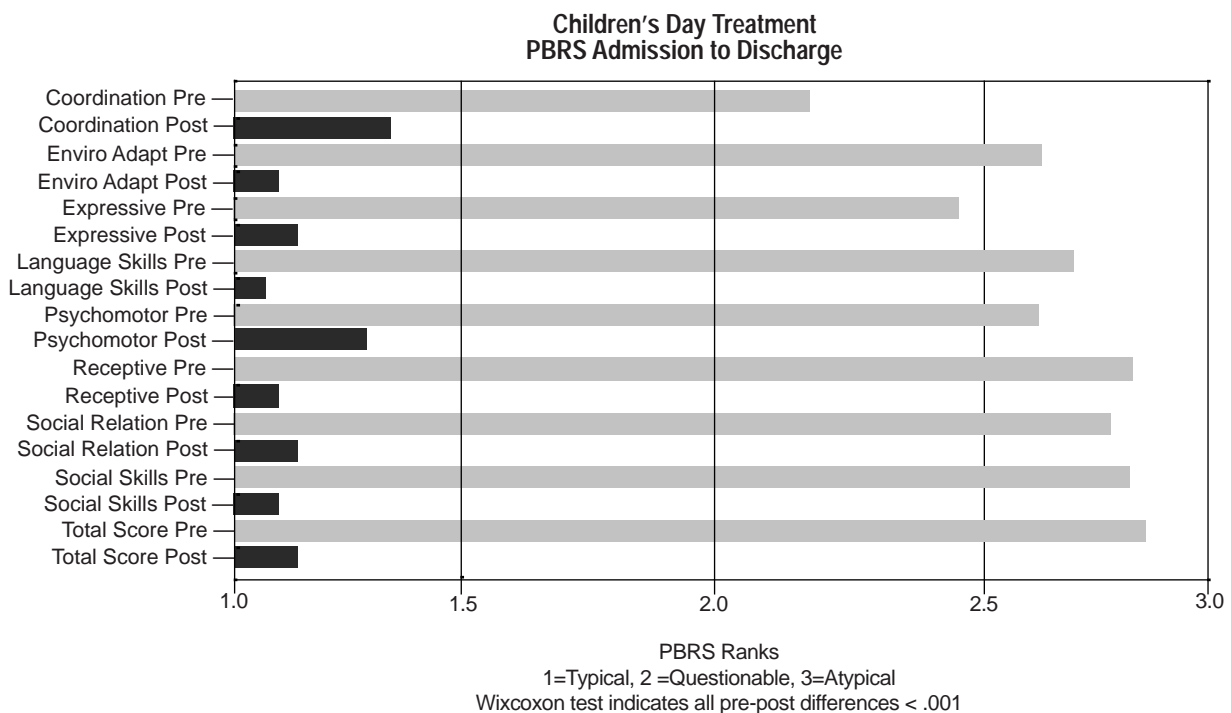
Results

The difference between the two sets of rankings was analyzed for the 49 clients using a Wilcoxon matched-pairs signed-ranks test. Analyses of the data indicated significant improvement for all of the assessed behavioral categories (see categories and statistical significance information in the figure and table). These data indicate that CDT is effective in accomplishing the program goals of facilitating increases in age appropriate behaviors and improving clients' social behavior and physical coordination. Children were identified for treatment because they were behind that which is expected of them for their age. When discharged from CDT approximately nine months later, the children were functioning at an age-appropriate level or better, according to the psychometrically sound measurements upon which the analyses were based.

Discussion

The nature of the results suggest that overall, CDT met the needs of the children served. The favorable results across all scales of the PBRS indicate the program did a consistent job of meeting the needs of the children to advance in their psychosocial development, which is consonant with program goals. Of course, in the absence of an experimental design, some extraneous variables have not been controlled, and indeed cannot be controlled. The PBRS allows more control than most instruments for maturation effects, however.

In order to help place the benefits of CDT into perspective, it is instructive to consider a recent article from the *APA Monitor* (1997, 28[6]), which reported on a study conducted at Kaiser Permanente, a large California-based HMO. In that study, it was determined that more than 13% of the children who were seen by primary care physicians were seen due to mental health and behavioral



problems. That translated into a 10% contingent of the young people who utilized medical care most often costing the system \$1,000,000 during the year the study was conducted. Additionally, nearly five percent of the parents of these children were clinically depressed. As the article points out, "People are taking their kids to the pediatrician when in fact they need help with parenting and with identifying their children's emotional and psychological problems" (p. 6).

These findings draw attention to the beneficial aspects of early appropriate, and intensive intervention with a severe population of children with several problems, such as those served in CDT. Clearly, the benefits include not only the improvements in psychosocial, cognitive, and social functioning demonstrated in this evaluative study, but a potentially substantial medical cost offset effect for years to come. It may be worthwhile to examine the records of young high-frequency users of medical treatment to assess if they and their families would be better served with a primary psychosocial intervention such as CDT.

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