The Children and Youth We Serve:

A National Picture of the Characteristics of Students With Emotional Disturbances Receiving Special Education

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This article provides a national perspective of children and youth with emotional disturbances (ED) served in special education using data from the Special Education Elementary Longitudinal Study and the National Longitudinal Transition Study–2. Data sources comprise teachers, school records, the students, and their parents. Results indicate that children and youth with ED live in households in which multiple risk factors exist for poor life outcomes. As a group, these children and youth have serious and multiple impairments that include an array of emotional disabilities, poor communication skills, and low academic achievement. There is a considerable gap between initial identification of problems and the onset of service delivery, a high rate of suspension and expulsion, and an unstable school environment. Parents of children and youth with ED work harder to secure services for their children and are less satisfied with services than parents of children in other disability groups. Implications of the findings point to a need to emphasize programs that address both the academic and the behavioral needs of these children and youth.

Children and youth with emotional disturbances (ED) probably experience less school success than any other subgroup of students, with or without disabilities (Landrum, Tankersley, & Kaufman, 2003). Yet, from a national perspective, little is known about the complex array of factors that contribute to the poor outcomes of this group (Rones & Hoagwood, 2000). In their comprehensive review of research related to school-based programs to meet children's mental health needs, Rones and Hoagwood noted there is a paucity of research focused on some of the most severely impaired children with emotional and behavioral disorders, that is, those children identified with ED and served in special education programs. They concluded, "This review uncovers few studies specifically focused on this group of children. This is a major shortcoming in the knowledge base" (p. 238).

Understanding the behaviors and experiences of children and youth with ED is fundamental to serving them well. Having national data on the needs and strengths of these children and youth will help to build more effective policies, programs, and service systems. In this article, we describe children and youth with ED served in special education using data recently made available through the *Special Education Elementary Longitudinal Study* (SEELS) and the *National Longitudinal Transition Study–2* (NLTS2; see Wagner, Kutash, Duchnowski, & Epstein, 2005). The purpose of this article is to describe the complex array of factors that help explain the academic and social obstacles children and youth with ED encounter at school; it provides national data on the demographic characteristics of children and youth with ED and their households, their functional characteristics, and their past education and service experiences that provide context for their ongoing school experiences. These areas have emerged as a foundation to understanding the needs of this diverse group of students, a foundation that historically has had very little empirical support from a national perspective.

The education system is the only child-serving institution mandated to serve children and youth with ED. The Individuals with Disabilities Education Improvement Act (IDEA) of

2004 guarantees access to a free, appropriate public education for all children with disabilities; that group now consists of approximately 450,000 children and youth with ED. However, for 51% of these children and youth, the educational experience ends in a decision to drop out of school (U.S. Department of Education, 2002), the highest dropout rate of any disability category; these dropout decisions reflect the fact that these students earn lower grades and fail more courses than any other disability group served in special education environments (Landrum et al., 2003). Illuminating these clusters of factors that characterize children and youth with ED will provide a better understanding of contributors to these poor outcomes.

Student and Household Characteristics

Children and youth with ED are more likely than the general population to have several demographic characteristics that are associated with poor outcomes. For example, children who live in poverty are more likely to experience poor health, poor education, and poor social outcomes than more affluent children (Duncan & Brooks-Gunn, 1997; Lewit, Terman, & Behrman, 1997). However, it is unclear whether it is poverty itself or the other circumstances that often accompany it that contribute to these outcomes; the negative effects of living in a single-parent household may be particularly serious (Shonkoff & Phillips, 2000). The effects of poverty also are confounded with both racial/ethnic minority status and the presence of mental health needs. It is estimated that people in the lowest strata of income, education, and occupation are two to three times more likely than those in the highest strata to have a mental disorder (U.S. Department of Health and Human Services, 2001), and poverty as a risk factor for mental health needs in children has been well established (Friedman, Katz-Leavy, Manderscheid, & Sondheimer 1996). Because minorities are disproportionately poor (Donovan & Cross, 2002), it follows that they are more likely to be affected by mental disorders.

A congressionally mandated committee reviewed data from two national data sets to provide a snapshot of participation in special education for children in different racial/ethnic groups (Donovan & Cross, 2002). They found that children from all racial/ethnic minority groups were more likely to be identified as having mental retardation or learning disabilities than ED. However, African American students were more likely to be identified as having ED than any other racial/ethnic group and were half again as likely as White students to receive this disability classification. Their analysis also revealed that more boys than girls exhibit academic and behavioral problems, with the greatest discrepancy between boys and girls being in the ED category, which is almost 80% male. The committee pointed out that while these data sets and the current research base provide information about rates of identification, they do not supply explanations and insights into these complex areas (Donovan & Cross, 2002). They recommended the implementation of a nationally representative longitudinal study that would allow for a more informed examination of these factors. Data from SEELS and NLTS2 have the potential to contribute information that will assist with this understanding.

Functional Characteristics

One of the most important aspects in the diagnosis and assessment of mental health problems in children and youth is an evaluation of their functional behavior in important life domains (Canino, Costello, & Angold, 1999). These life domains include the cognitive, social, and communication skills of children and youth, and researchers have documented the importance of these abilities as predictors of successful adult adjustment and outcomes (e.g., Greenbaum et al., 1996). For example, the key role of language and communication has been well established as critical to emotional development (Bruner, 1971; Luria, 1971) and academic performance (U.S. Department of Health and Human Services, 1999), and recent research has shown that a large proportion of children and youth with ED have language disorders (Rogers-Adkinson & Griffith, 1999). The literature also contains several studies and reviews describing various aspects of these manifestations and the associated poor social, academic, and language skills in this population (Benner, Nelson, & Epstein, 2002; Cullinan, Epstein, & Sabornie, 1992; Greenbaum et al., 1996; Trout, Nordness, Pierce, & Epstein, 2003). However, the continued poor outcomes of children and youth with ED indicate the need for research that documents the prevalence of these functional limitations and examines their contributions to academic and social outcomes so that the results from such research could be used to inform and develop better practices. SEELS and NLTS2 have collected information that will allow for the examination of the interrelatedness of these factors from a developmental and longitudinal perspective.

Education and Service-Related Experiences

In addition to the functional characteristics described above, when children and youth with ED come to school, they "bring to the table" their past experiences with school and other service systems that helped shape their current performance, including such factors as the stability of their school environment, the onset of their support services, and their parents' involvement in and satisfaction with their educational and service experiences. The literature underscores the importance of a stable school environment for children (Demie, 2002; Rumberger, 2002), and researchers have demonstrated the link between volatility in school environments and poor academic performance for general education students (Fowler-Finn, 2001). For example, Rumberger and Larson (1998) found that students who had one nonpromotional school change between 8th and 12th grades were twice as likely to drop out or enroll in an alternative educational program as those who did not make such a change. However, there is little systematic information about the mobility, retention, and disciplinary actions regarding children and youth with ED, how this compares to other disability

groups and to the general education population, and how such factors interact to contribute to later outcomes, such as early school-leaving or criminal justice system involvement.

Early identification and intervention is a critical component of improving outcomes for children and youth who have ED (President's Commission on Excellence in Special Education, 2002; U.S. Department of Health and Human Services, 1999). Although several studies using nonrepresentative samples have revealed a gap of approximately 2 years between onset of problems and the initiation of services (see Kutash, Duchnowski, & Friedman, 2005, for a review), SEELS and NLTS2 provide a national perspective on this issue.

Children and youth with ED are not the only ones shaped by early experiences with schools and service systems; their families too encounter educators, medical and mental health providers, and others in their efforts to meet their children's needs. Often, these interactions may be contentious and the efforts challenging (Duchnowski, Berg, & Kutash, 1995; Duchnowski, Dunlap, Adeigbola, & Berg, 1995). However, parent involvement has become a key component of the major initiatives to improve U.S. schools in both general and special education (No Child Left Behind Act, 2002; President's Commission on Excellence in Special Education, 2002). Also, researchers have demonstrated that when parents are involved in helping with homework and doing in-home reading, children benefit (Fan & Chen, 2001; Henderson & Berla, 1994; Henderson & Mapp, 2002; Jeynes, 2003; Keith, 1991). They have more consistent school attendance (Falbo, Lein, & Amador, 2001), improved behavior in school (Gonzalez, 2002), and improved academic performance (Finn, 1998; Simon, 2001; Van Voorhis, 2001). However, parents of children and youth with ED who have had challenging past experiences with schools and other systems may be reluctant to engage in those systems in ways their children need. SEELS and NLTS2 provide a national perspective on parent satisfaction with services and their level of involvement in the education of their children, areas that are in need of more intensive examination.

Method

Key features of the SEELS and NLTS2 designs, data sources, and data collection methods were detailed in a previous issue of the *Journal of Emotional and Behavioral Disorders* (Wagner et al., 2005). For additional information, the reader is referred to the studies' Web sites (www.seels.net and www.nlts2.org). In this section, we summarize only major points about the studies that are important to understanding the data reported here.

Study Samples and Sample Weighting

The SEELS and NLTS2 samples were drawn to generalize to all children and youth with disabilities, including ED, who were in particular age ranges and receiving special education services when the studies began. SEELS consisted of students receiving special education who were 6 through 12 years of age in the 1999 through 2000 school year (referred to hereafter as elementary/middle school children), and NLTS2 consisted of youth ages 13 through 16 who were receiving special education services in seventh grade or above in the 2000 through 2001 school year (referred to hereafter as secondary school youth). It is important to note that the studies generalize only to children and youth who receive special education services within the primary disability classification of ED; other children with emotional or behavioral problems that do not qualify them for special education, and those who have not been formally identified as having a disability, are not represented in SEELS or NLTS2.

Children and youth were selected in a two-stage sampling process. First, for each study, a random sample of school districts that serve students in the designated age ranges was selected from the universe of districts, stratified to represent different geographic regions, sizes (indicated by student enrollment), and levels of district wealth (indicated by student eligibility for free or reduced-price lunches). SEELS and NLTS2 comprised 245 and 501 school districts, respectively, as well as 30 and 38 special schools that served only students with disabilities, primarily those with sensory impairments. In the second sampling stage, a designated number of children and youth in each district or school were randomly selected from each federal special education disability category. In addition to students in the other 11 special education disability categories, the initial SEELS sample comprised 1,081 six- through twelve-year-olds who were classified with ED as their primary disability, and NLTS2 consisted of 1,077 youth ages 13 through 16 in that category. Children and youth are weighted to represent the number of students nationwide who were classified with ED and instructed in the kind of school or school district from which they were selected.

Data Sources and Collection Methods

Although the studies are longitudinal, only data from the first wave of data collection are reported here. Data come largely from telephone interviews with parents of sample members, conducted in 2000 with parents of SEELS sample members and in 2001 with parents of NLTS2 sample members. In addition, measures of students' reading and mathematics abilities come from direct assessments of SEELS students, conducted in the 2000 through 2001 school year. (Direct assessment data are not yet available for NLTS2 students.)

Measurement

Most of the items that generated the data reported here are straightforward survey or interview questions, many of which required yes/no answers (e.g., "Has the child ever been retained at grade level?"). Exceptions are two scales created by combining parent interview responses, two measures drawn from a direct assessment of students' reading and mathematics abilities, and an indicator of household poverty, described later.

Parents responded to 11 items regarding their children's social interactions, 9 of which were drawn from the *Social Skills Rating System* (SSRS) Parent Form (Gresham & Elliott, 1990). The full 50-item SSRS is a standardized, norm-referenced instrument with strong psychometric properties. It often is used to screen and classify students' social behavior in three domains: social skills, problem behaviors, and academic competence. In consultation with the developer of the SSRS, the NLTS2 and SEELS design team selected nine items that focus on the single domain of social skills from the SSRS Parent Form. The SSRS items are appropriate for children ages 3 through 18, and national norms permit comparisons between children with ED and the general population of the same age on the SEELS and NLTS2 subscales that are composed entirely of SSRS items.

Parents were asked whether their children engaged in each kind of interaction *never, sometimes,* or *always*. Summed responses form a scale of overall social skills; summed responses to subsets of items form subscales assessing self-control, assertion, and cooperation skills. Ratings of more than 1 standard deviation above the mean of the normed sample are considered high, ratings within 1 standard deviation of the mean are considered medium, and ratings more than 1 standard deviation below the mean are considered low (more detailed analyses of these social skills of students with disabilities are found in Cadwallader, Cameto, Blackorby, Giacalone, & Wagner, 2002; Cameto, Marder, Cadwallader, & Wagner, 2003).

A second scale, measuring functional cognitive skills, is composed of responses to four survey items that provide an overall assessment by parents of the abilities of their children with ED to manage the following everyday functions that require the cognitive ability to read, count, and calculate: reading and understanding common signs, telling time on a clock with hands, counting change, looking up telephone numbers, and using the telephone. For each task, parents responded on a 4-point scale ranging from *very well* to *not at all well*. Ratings were summed to create an overall scale of functional cognitive skills. Multivariate analyses conducted in both SEELS and NLTS2 demonstrate that, independent of other differences between them that were controlled for statistically in analyses, this scale score is strongly and positively related to students' reading and mathematics abilities (Blackorby, Chorost, Garza, & Guzman, 2003; Blackorby, Wagner, et al., 2003), as measured through direct assessments using research editions of subtests of the Woodcock-Johnson–III (WJ-III; Woodcock, McGrew, & Mather, 2001).

The research editions of two subtests of the WJ-III that are reported in this article for SEELS (see Note 1) involve passage comprehension and mathematical calculation. The WJ-III is an individually administered test with excellent technical characteristics that has current norms and is used in many school districts to assess students for eligibility for special education. The research subtests are shorter versions whose reliability and validity make them appropriate for research purposes; they are not considered appropriate for diagnostic purposes. The passage comprehension subtest presents students with a series of progressively more challenging items with a fill-in-the-blank response format. The least difficult items present an incomplete sentence in conjunction with a graphic representation; the student is to provide the appropriate word to complete the sentence. The more difficult items are entirely text based, address more technical topics, and require both greater vocabulary and the ability to make inferences from context. The mathematics calculation items range from simple addition to advanced calculations, such as integrating a function. Students are presented a worksheet containing the problems with a notation that signals the calculation to be performed (e.g., a "+" to indicate addition).

Finally, a dichotomous variable indicating that a student's household was in poverty was constructed using parents' reports of household income and household size, along with federal poverty thresholds for 2000 (U.S. Census Bureau, 2001). These thresholds indicate the income level for specific sizes of households, below which the household is considered in poverty. Because respondents reported household income in categories (e.g., $25,000 to $29,999) rather than specific dollar amounts, estimates of poverty status were calculated by assigning each household to the mean value of the category of income reported by the parent and comparing that value to the household's size to determine poverty status.

Analysis Procedures

Although over the course of the studies, a wide variety of analyses will be conducted that will use a range of both bivariate and multivariate analysis methods, data reported here are descriptive. They involve weighted frequencies and means for students from both studies who are classified with ED; the values reported are weighted population estimates for students classified with ED nationally, not means and percentages for students in the samples. Sample sizes, reported in footnotes to each table, differ somewhat across variables either because they are drawn from different instruments, which had different response rates (i.e., items from the parent interviews have larger *n*'s), or because the item nonresponse rate varied across items within each instrument.

Means and percentages for children and youth classified with ED as their primary disability for special education purposes are compared with students in the two studies' age ranges who receive special education in all other categories combined and with the general population of students, when such estimates are available. These comparisons provide benchmarks for interpreting results. However, it is important to understand that the distribution of disabilities among students receiving special education is quite different in the SEELS and NLTS2 age groups (see Table 1). Whereas the proportion of children and youth classified with ED as their primary disability almost doubled across the two age groups (i.e., from 6.2% to 11.2% of all students receiving special education), the number of children and youth served in the ED category was virtually unchanged (about 204,000 in each age group, or about .85% of the school-age population).

TABLE 1
Primary Special Education Disability Categories of Children and Youth With Disabilities

Disability category	Elementary/middle school children[a]		Secondary school youth[b]	
	n	%	*n*	%
Learning disabilities	1,428,939	43.2	1,130,539	61.8
Speech/language impairment	1,002,090	30.3	76,590	4.2
Mental retardation	292,833	8.8	213,552	11.7
Emotional disturbance	204,725	6.2	203,937	11.2
All other disabilities[c]	378,480	11.5	214,230	11.65
Total	3,307,067	100.0	1,838,848	100.0

[a]Data are for children ages 6 to 13 who were receiving services under IDEA, Part B, in the 1999–2000 school year in the 50 states and Puerto Rico (OSEP, 2001). [b]Data are for children ages 13 to 16 who were receiving services under IDEA, Part B, in the 2000–2001 school year in the 50 states and Puerto Rico (OSEP, 2002). [c]Other disabilities include children and youth with hearing, visual, orthopedic, or other health impairments, autism, traumatic brain injuries, multiple disabilities, and deaf-blindness.

The increased percentages of children and youth receiving special education services who are served under the ED category result from the sharp decline in the number of children and youth with a primary disability classification of speech/language impairment. The latter constitute almost one third of students receiving special education represented in SEELS but only 4% of those represented in NLTS2. Thus, comparisons of children and youth with ED with those from the remaining categories could show different results in SEELS relative to NLTS2 because of the difference in the distribution of disabilities within the two age groups.

The results of two-tailed *F* tests that determine the statistical significance of differences between children and youth with ED and those receiving special education in other categories are reported in each table, with asterisks indicating the levels of significance. Standard errors appropriate for use in the calculation of the *F* tests were initially calculated for a representative number of variables using pseudoreplication (Kish & Frankel, 1970), a procedure that is widely used by the U.S. Census Bureau and other federal agencies that field complex surveys, and were based on 32 balanced half-replicate subsamples. The half-replicates were then used to estimate the variance of responses to 24 items that involved both categorical and continuous responses. Because pseudoreplication procedures are not easily implemented using the Statistical Analysis System (SAS), the analysis program used for the studies, the standard errors derived from these variables were used to develop an alternative formula for the standard error that is easily implemented in SAS and is based on the weighted standard deviation and effective sample size.

When respondents are independent and identically distributed, the effective sample size for a weighted sample of N respondents can be approximated as

$$N_{eff} = N\left(\frac{E^2[W]}{E^2[W]+V[W]}\right)$$

where N_{eff} is the effective sample size, $E^2[W]$ is the square of the arithmetic average of the weights, and $V[W]$ is the variance of the weights. For a variable X, the standard error of estimate can typically be approximated by $\sqrt{V[X] / N_{eff}}$, where $V[X]$ is the weighted variance of X. Although within SEELS and NLTS2 respondents are not independent of each other because they are clustered in school districts and the intracluster correlation is not zero, the intracluster correlation traditionally has been quite small, so that the formula for the effective sample size shown above has worked well. To be conservative, however, the initial estimate was boosted by 25% to ensure that the standard error of estimate is not underestimated (i.e., each standard error produced through the effective sample size formula is multiplied by 1.25, a figure derived from the results of the comparisons of the fit of estimates produced from the two methods). The introduction of this safety factor also reduces the likelihood of finding spurious differences between groups that occur by chance when a large number of comparisons are conducted (i.e., five such differences would be expected out of 100 comparisons by chance alone).

RESULTS

The results are organized according to components of the conceptual models for the two studies described previously (Wagner et al., 2005). Specifically, descriptive data are organized by student and household characteristics, disability characteristics, and education- and service-related experiences. Specific variables reported within each of those categories are those research

has suggested are important influences on outcomes for children and youth.

Student and Household Characteristics

Gender. Across the school age range, more than three fourths of children and youth classified with ED are boys, significantly more than the two thirds and approximately one half of peers with other disabilities and peers in the general population who are boys, respectively ($p < .001$). Thus, when interpreting data regarding their experiences, it is important to remember that they heavily reflect the experiences of boys (see Table 2).

Racial/Ethnic Background. In both SEELS and NLTS2, African Americans represent a significantly larger percentage of children and youth with ED (27% and 25.1%) than is found in the general population (17.1% and 15.8%, $p < .001$), and among elementary/middle school children, the same is true when those classified with ED are compared with those with other disabilities (18.4%, $p < .001$). In contrast, there tend to be fewer Hispanic children and youth with ED (i.e., 12.1% of elementary and middle school children, compared with 16.5% of children in the general population, $p < .05$; 10.2% of secondary school youth, compared with 14.1% of youth with other disabilities, $p < .01$; see Table 2).

Socioeconomic Status. Children and youth classified with ED are significantly more likely than both students with other disabilities and students in the general population to live in households with several risk factors for poor outcomes (see

TABLE 2
Demographic Characteristics of Students With Emotional Disturbances and Students With Other Disabilities

	Elementary/middle school children			Secondary school youth		
Characteristic	W/ED (%)	W/other disabilities (%)	General population[a] (%)	W/ED (%)	W/other disabilities (%)	General population[b] (%)
Male	80.0	65.7***	51.0***	76.0	65.4***	50.8***
		40.49	*232.96*		*16.12*	*144.0*
White	56.9	63.6**	61.3	61.9	62.6	66.1
		6.67	*3.66*		*.05*	*2.25*
African American	27.0	18.4***	17.1***	25.1	20.1	15.8***
		13.67	*22.22*		*3.68*	*17.87*
Hispanic	12.1	13.8	16.5**	10.2	14.6*	12.8
		.94	*8.6*		*5.25*	*3.0*
Living in poverty	33.2	23.8***	16.0***	29.8	24.1*	19.7***
		11.49	*47.33*		*3.90*	*17.71*
In a single-parent household	34.4	25.1***	25.9***	38.1	30.2*	22.5***
		12.01	*12.54*		*6.47*	*36.0*
In a household whose head is						
Not employed	23.6	16.5**	10.3***	24.0	16.1**	8.5***
		8.63	*36.54*		*8.94*	*45.41*
Not a high school graduate	21.2	19.9	8.1***	19.5	21.2	16.0
		.34	*42.9*		*.43*	*2.78*
In a household with another member with a disability	45.5	38.6*	NA	45.7	39.0*	NA
		6.0			*4.65*	

Note. Across variables in Table 2, SEELS sample sizes for children with ED range from 682 to 876 and for children with other disabilities from 7,411 to 8,865. Across variables, NLTS2 sample sizes for youth with ED range from 733 to 836 and for youth with other disabilities from 7,293 to 8,394. *F* statistics are in italics.

[a]Data for the gender and race/ethnicity of the general population are for 5- to 14-year-olds and are drawn from the U.S. Bureau of the Census (1999 and 2000, respectively). Data on poverty are for households with children ages 6 to 17 (U.S. Bureau of the Census, 2001). Measures of parent education and employment are calculated for 6- to 13-year-olds from the National Household Education Survey of 1999. [b]Data for the gender, race/ethnicity, and parent characteristics for the general population are calculated for 13- to 17-year-olds from the National Household Education Survey, 1999. Data on poverty are from U.S. Census Bureau, 2002.

Comparisons with children/youth with ED statistically significant in a two-tailed test at the following levels: *$p < .05$. **$p < .01$. ***$p < .001$.

Table 2). The percentages of school-age children and youth classified with ED who are living in poverty (33.2% and 29.8% for elementary/middle and high school students, respectively) are significantly greater than the percentages among their general population peers (16% and 19.7%, $p < .001$) and among children and youth with other disabilities (23.8% and 24.1%, $p < .001$ and $p < .05$).

An examination of the percentage of students living in poverty for each racial/ethnic group was conducted for the entire samples in both NLTS2 and SEELS. For the entire NLTS2 sample, across all disability groups, 15% of the White students lived in poverty compared to 43% for both the African American students and Hispanic students. Across all disability groups in SEELS, 14% of the White students lived in poverty compared to 51% of the African American students and 41% of the Hispanic students.

More than one third (34.4%) of elementary/middle school children classified with ED and 38.1% of high school youth with that classification live in a single-parent household. These are higher rates than found among students with other disabilities (25.1% and 30.2%, $p < .01$ and $p < .05$) and among students in the general population (25.9% and 22.5%, $p < .05$ and $p < .001$). Almost one fourth (23.6%) of both elementary/middle school children classified with ED and their secondary school peers (24%) live in households whose head is unemployed, again significantly higher rates than among those with other disabilities (16.5% and 16.1%, $p < .01$) and among those in the general population (10.3% and 8.5%, $p < .001$). The percentage of elementary and middle school children with ED in households whose head was not a high school graduate (21.2%) is more than twice that of children in the general population (8.1%, $p < .001$). Additionally, both age groups of students with ED are more likely than their peers with other disabilities to live in a household that has the added stress of another member who has a disability (45.5% vs. 38.6% for elementary/middle school children, and 45.7% vs. 39% for secondary school youth, $p < .05$ for both comparisons).

Functional Characteristics of Children and Youth Classified With ED

Disabling Conditions. To obtain a broader view of students' disabilities than the primary disability classification assigned by schools allowed, parents were asked to report the "physical, sensory, learning, or other disabilities or problems" with which students had been diagnosed, as well as to report on several aspects of their children's functional abilities. Parents responded to this question in a variety of ways, often providing only a general description (e.g., emotional disturbance, behavior disorder), but sometimes being more specific (see Note 2). The wide range of disabilities or problems reported by parents of children and youth with ED include anxiety, bipolar and Tourette's disorders, depression, obsessive–compulsive and oppositional behaviors, and psychosis.

In addition to the emotional or behavioral disorder for which their children receive special education, many parents of children and youth with ED reported other disabling conditions. Most commonly mentioned was attention-deficit disorder (ADD) or attention-deficit/hyperactivity disorder (ADHD); almost two thirds of both elementary/middle school children and secondary school youth classified with ED (64.9% and 63.1%, respectively) are reported by parents also to have ADD or ADHD. In addition, 24.9% of elementary/middle school children and 29.9% of secondary school youth classified with ED are reported to have a learning disability. Other types of disabilities were rarely reported.

Social Skills. According to parents, elementary/middle school children with ED have consistently and significantly lower social skills on all measures than their peers with other disabilities (see Table 3). For example, only 6% of elementary/middle school children classified with ED are rated as having high overall social skills, compared with about one fifth of their counterparts with other disabilities ($p < .001$). Similarly, 11% of elementary/middle school children with other disabilities are rated low on the self-control subscale, whereas $2\frac{1}{2}$ times as many children with ED are scored low on this measure (28.8%, $p < .001$). A similar pattern is evident for secondary school youth classified with ED. Significant differences are found between ratings of older youth with ED and youth with other disabilities on all social skills measures except the percentage scoring low on the assertion subscale.

National norm data for the assertion and self-control subscales are available to compare children and youth with ED with their peers in the general population (see Note 3). Comparisons show that children and youth with ED are significantly more likely to score low on the self-control subscale in both the SEELS and NLTS2 age ranges (28.8% vs. 18.2% for SEELS and 37.4% vs. 7.5% for NLTS2, $p < .001$ for both comparisons). Although there is no significant difference on the assertion subscale between elementary/middle school children with ED and those in the general population (e.g., 20.7% and 24.4% of the two groups, respectively, are rated high, 11.3% and 7.9% are rated low), among secondary school youth 24.3% with ED score low, compared with 8.1% of youth in the general population ($p < .001$).

Cognitive Functioning. Although ED is not a category usually associated with cognitive impairment, just more than 1% of children and youth in that category are reported by parents to have mental retardation as a secondary condition. (To illustrate the range of cognitive abilities of children and youth with ED, 2.5% of elementary/middle school children with ED and 1.8% of secondary school youth in that category participate in programs for the gifted and talented.) Further, 10.6% of elementary/middle school children with ED and 2.5% of youth with ED in secondary school are reported by their parents to have low functional cognitive skills (see Table 3). Parents' ratings of the functional cognitive skills ratings of their elementary/

TABLE 3
Parents' Reports of the Functional Abilities of Children and Youth Classified With ED and With Other Disabilities

Parent report of score	Elementary/middle school children		Secondary school youth	
	W/ED (%)	W/other disabilities (%)	W/ED (%)	W/other disabilities (%)
Social skills scales				
Overall social skills				
High	6.0	20.8***	10.3	24.5***
		99.11		*41.92*
Low	27.2	11.6***	32.8	16.0***
		48.19		*37.88*
Self-control subscale				
High	5.0	18.7***	4.9	17.4***
		93.84		*53.89*
Low	28.8	11.0***	37.4	20.5***
		62.74		*34.79*
Assertion subscale				
High	20.7	32.7***	22.4	29.6**
		28.56		*7.44*
Low	11.3	7.6*	24.3	19.4
		5.0		*3.53*
Cooperation subscale				
High	5.6	16.0***	20.0	37.4***
		53.54		*43.94*
Low	23.6	13.3***	58.1	38.7***
		22.06		*41.18*
Functional cognitive skills				
High	27.7	24.8	62.7	47.1***
		1.57		*25.64*
Low	10.6	12.2	2.5	5.9**
		.98		*9.03*
Child had at least "a little trouble" with				
Speaking	27.3	43.9***	19.5	30.2***
		38.01		*17.45*
Carrying on a conversation	34.6	34.8	31.3	31.8
		.01		*.03*
Understanding what others say	44.2	39.7	29.4	30.2
		2.55		*.08*

Note. Across variables in Table 3, SEELS sample sizes for children with ED range from 733 to 854 and for students with other disabilities from 7,483 to 8,745. Across variables, NLTS2 sample sizes for youth with ED range from 801 to 812 and for youth with other disabilities from 7,987 to 8,149. *F* statistics are in italics.
Comparisons with children/youth with ED statistically significant in a two-tailed test at the following levels: $*p < .05$. $**p < .01$. $***p < .001$.

middle school children classified with ED are similar to those for children with other disabilities. However, in NLTS2, significantly more youth with ED have parents who rate their functional cognitive skills as high (62.7%) than do youth with other disabilities (47.1%, $p < .001$), and fewer have parents who rate them as low (2.5% vs. 5.9%, $p < .001$). The fact that significant differences between groups are apparent for older youth but not younger children likely results from the different distributions of disabilities in the two age groups, as noted in the Method section.

Communication Skills. For a sizable percentage of children and youth classified with ED, their disability interferes to some degree with their ability to communicate with others. Parents were asked to rate how well, compared with other children their child's age, their child can speak, carry on a conversation,

and understand what others say (see Table 3). Although both elementary/middle school children and secondary school youth classified with ED are less likely than students with other disabilities to have trouble speaking, 27.3% and 19.5% still are reported by parents to have at least "a little trouble" producing speech. Receptive language—understanding what others say—and the communication give-and-take of conversation is as difficult for children and youth classified with ED as for those with other disabilities, which include children with very direct communication limitations, such as speech or hearing impairments and autism. About one third of children and youth classified with ED are reported by parents to have trouble carrying on a conversation, and 44.2% of elementary/middle school children classified with ED and 29.4% of youth with ED at the secondary school level have some trouble understanding what others say.

Academic Functioning. Scores on the WJ-III passage comprehension and mathematics calculation subtests for elementary and middle school children with ED indicate significant academic deficits. In reading, more than 6 in 10 children with ED (61.2%) have percentile scores in the bottom quartile (i.e., scores between 0 and 25, equivalent to the lowest scoring 25% of children in the general population). About one fourth (24.5%) score in the second quartile, 9.2% in the third, and 5.1% in the top quartile. These scores are virtually identical to those of children with other disabilities, including those with mental retardation, autism, and multiple disabilities, many of whom experience significant cognitive limitations. Mathematics calculation scores are somewhat better but still markedly lower than those of the general population. Forty-three percent of children with ED score in the bottom quartile, 30% in the second quartile, 18.8% in the third, and 8.1% in the top quartile. Again, these scores do not differ significantly from those of children with other disabilities.

Education- and Service-Related Experiences

On average, each elementary and middle school in the United States serves seven children who receive special education services in the category of ED (within schools averaging 625 students); an average of 17 youth are classified with ED and receiving special education services in each high school averaging 1,310 students. These children and youth and their families exhibit a consistent pattern of more challenging relationships with their schools than do students with other disabilities.

Age at Identification of and First Service for a Disability. Although the average age of first diagnosis of a disability reported by parents is virtually the same for elementary/middle school children classified with ED and those with other dis-

TABLE 4
Age at Disability Diagnosis and Service Initiation of Children and Youth Classified With ED and With Other Disabilities

	Elementary/middle school children		Secondary school youth	
	W/ED	**W/other disabilities**	**W/ED**	**W/other disabilities**
Average age when child				
First started having difficulty/problem	4.6 yrs	4.4 yrs *2.0*	6.4 yrs	5.7 yrs** *9.80*
First received special education service	7.8 yrs	6.7 yrs* *5.99*	9.0 yrs	8.2 yrs*** *19.69*
First was served by a professional for a disability	6.2 yrs	5.9 yrs *4.5*	8.1 yrs	7.2 yrs*** *18.71*
Percentage with disability identified at eligible age who received				
Early intervention services	24.4%	29.7% *1.43*	34.0%	59.1%** *7.61*
Preschool special education	35.4%	44.9%* *6.39*	29.9%	48.8%*** *14.32*

Note. Across age variables in Table 4, SEELS sample sizes for children with ED range from 699 to 704, and for children with other disabilities the sample size ranges from 5,694 to 8,487. Across age variables, NLTS2 sample sizes for youth with ED range from 732 to 759 and for youth with other disabilities, from 7,645 to 7,835. Sample sizes for early intervention services are 217 and 66 for SEELS and NLTS2 students with ED (only those identified with a disability before age 3) and 5,154 and 3,220 for students with other disabilities. Sample sizes for preschool special education (only those identified with a disability before age 5) are 399 and 255 for SEELS and NLTS2 students with ED and 6,329 and 5,031 for students with other disabilities. *F* statistics are in italics.
Comparisons with children/youth with ED statistically significant in a two-tailed test at the following levels: *$p < .05$. **$p < .01$. ***$p < .001$.

abilities (see Table 4), children classified with ED are provided special education services in school an average of more than 1 year later (average age 7.8 for children classified with ED and 6.7 for children with other disabilities, $p < .05$). A similar later initiation of special education services is noted for secondary school youth classified with ED (average age of 9 vs. 8.2, $p < .001$). Secondary school youth classified with ED also are older at first diagnosis and at first service by a professional for a disability than their counterparts with other disabilities. In addition, even when identified at the appropriate age to receive early intervention or preschool special education services for their disability, secondary school youth classified with ED are less likely to receive those services than are students with other disabilities. A similar difference in receipt of preschool special education services is noted for elementary/middle school children.

Past Education-Related Experiences. The challenging education-related histories of children and youth classified with ED is evident in their pattern of school mobility as well as in their history of disciplinary actions at school (see Table 5). In both age groups, children and youth classified with ED are more likely than those with other disabilities to have changed schools often; about one third of elementary/middle school children classified with ED (33.9%) and almost twice as many secondary school youth (64.5%) have attended at least four schools since kindergarten, many more than would be expected from grade-level progression alone. Only 13.9% and 45.3% of students with other disabilities in the two age groups have changed schools this often. Further, children and youth classified with ED are more likely than those with other disabilities to change schools because they have been reassigned by their school district, rather than because of grade-level progression or, in the case of elementary/middle school children with ED, because their family moved. Specifically, more than one fourth of elementary/middle school children with ED (26.8%) and one fifth (19.5%) of youth with ED in secondary school made their most recent school change because of school reassignment, compared with 8.0% and 3.1% of students with other disabilities in the two age groups.

The difficulties children and youth classified with ED encounter at school are both academic and behavioral. To assess past academic performance, parents were asked to report whether their children with ED had ever been held back a grade over their school careers. Although grade retention is no more common among children and youth with ED than among students with other disabilities, both groups are significantly more likely to have been retained than students in the general population. Whereas 22% of elementary/middle school children classified

TABLE 5
Education-Related Experiences of Children and Youth Classified With ED and With Other Disabilities

	Elementary/middle school children		Secondary school youth	
Child/youth experience	**W/ED (%)**	**W/other disabilities (%)**	**W/ED (%)**	**W/other disabilities (%)**
Attended four or more schools since starting elementary school	33.9	13.9*** *60.88*	64.5	45.3*** *38.85*
Reason for most recent school change				
Family moved	20.9	30.1* *4.75*	13.4	13.8 *.01*
Grade-level progression	28.1	44.6*** *12.53*	44.5	75.2*** *38.23*
School reassigned student	26.8	8.0*** *22.17*	19.5	3.1*** *22.22*
Ever to have been retained at grade level	22.0	26.5* *3.89*	37.7	35.7 *.44*
Ever to have been suspended or expelled	47.7	11.7*** *218.55*	72.9	27.6*** *261.41*

Note. Sample sizes for reasons for the most recent school change (only those changing schools in the most recent school year) are 266 and 306 for SEELS and NLTS2 students with ED and 1,979 and 2,358 for students with other disabilities. Across other variables in Table 5, the SEELS sample sizes for children with ED range from 718 to 876, and for children with other disabilities, from 7,866 to 8,870. Across variables, NLTS2 sample sizes for youth with ED range from 765 to 793, and for youth with other disabilities, from 7,946 to 8,047. *F* statistics are in italics.
Comparisons with children/youth with ED statistically significant in a two-tailed test at the following levels: *$p < .05$. **$p < .01$. ***$p < .001$.

with ED and 37.7% of secondary school youth with ED are reported by parents to have been held back at least once, only 8% and 18% of same-age students in the general population have been retained at grade level ($p < .001$) (see Note 4).

Comparisons of behavioral indicators consistently show poorer results for children and youth classified with ED. Almost half of elementary/middle school children classified with ED (47.7%) have been suspended or expelled at some time in their school careers, more than 4 times the rate among those with other disabilities (11.7%, $p < .001$). Among secondary school students, 72.9% of youth classified with ED have been subject to this kind of disciplinary action at school, compared with 27.6% of students with other disabilities ($p < .001$). Rates seem even higher in comparison with students in the general population, among whom 13% of elementary/middle school children and 22% of secondary school youth have been suspended or expelled (see Note 4).

Parents' Views and Behaviors Related to Children's Education. Not only do students with ED have more difficult relationships with their schools in some ways than students with other disabilities and students in the general population, but their parents do as well (see Table 6). Parents of students classified with ED are significantly more likely than parents of students with other disabilities to express dissatisfaction with their children's schools, teachers, and special education services. For example, 22.3% of elementary/middle school children with ED and 28.8% of high school students have parents who report being "somewhat" or "very" dissatisfied with their children's schools, significantly more than the 13.6% and 19.3% of students with other disabilities in those age groups ($p < .001$). Rates of dissatisfaction among parents of students classified with ED also are higher than among students in the general population, among whom 8% and 13% in the two age groups have parents who report dissatisfaction with their children's schools (see Note 4). Similar differences are noted for both age groups regarding satisfaction with special education services and among elementary/middle school children regarding satisfaction with children's teachers.

Parents of secondary school youth classified with ED also are more likely than parents of students with other disabilities to report that it required "a lot of effort" in the last year to obtain the services their children need (30.2% vs. 16.9%, $p < .001$). Mediation and due process hearings also are more likely to be

TABLE 6
Response to Schools and the Special Education System of Parents of Students With ED and With Other Disabilities

	Elementary/middle school children		Secondary school youth	
Parent response	**W/ED (%)**	**W/other disabilities (%)**	**W/ED (%)**	**W/other disabilities (%)**
"Somewhat" or "very" dissatisfied with				
Student's school	22.3	13.6***	28.8	19.3***
		17.12		*12.45*
Student's teachers	14.8	10.4*	18.5	14.0
		5.48		*3.72*
Student's special education services	19.6	11.6***	21.8	15.1*
		12.26		*6.43*
Put "a great deal of effort" into getting services for student in the last 12 months	—	—	30.2	16.9***
				11.08
Participated in special education	—	—		
Mediation	—	—	18.0	9.6***
				13.54
Hearings	—	—	8.2	5.0*
				3.94

Note. For children in SEELS, sample sizes for satisfaction for children with ED range from 691 to 862, and for children with other disabilities the sample size range from 7,502 to 8,744. For children in NLTS2, sample sizes for satisfaction for children with ED range from 701 to 788, and for children with other disabilities the sample sizes range from 7,433 to 7,964. For NLTS2, the sample size for effort for youth with ED was 374 and 3,887 for youth with other disabilities. For NLTS2, mediation and hearings sample sizes for youth with ED range from 767 to 773, and for youth with other disabilities, from 7,893 to 7,900. *F* statistics are in italics.
Comparisons with children/youth with ED statistically significant in a two-tailed test at the following levels: *$p < .05$. **$p < .01$. ***$p < .001$.

part of the effort of parents of children classified with ED to obtain services for their children; 18% and 8.2% of secondary school youth classified with ED have parents who have participated in mediation and hearings, respectively, over their children's special education services, significantly more than the 9.6% and 5% of students with other disabilities whose parents have done so ($p < .01$ and $p < .05$).

Parents of children and youth with ED more actively support their children's education at home by providing frequent homework help than do parents of children in the general population. Almost one half of elementary/middle school children classified with ED and one fifth of youth in secondary school receive homework help five or more days a week, compared with 16.2% and 2.5% of students in the general population ($p < .001$; see Table 7). They also are more likely to attend parent–teacher conferences (85.4% and 73.2% of parents of younger and older students, respectively), some of which may focus on behavioral issues that are common among some students with ED than parents of students in the general population (79.8% and 52.4%, $p < .01$ and $p < .001$ compared with students with ED in the two age groups).

In contrast, among both elementary/middle school children and high school youth, those classified with ED are much less likely to have parents who volunteer at school (29.5% and 14.7%) than children with other disabilities (47.7% and 24.9%, $p < .001$) and children in the general population (39.4% and 25.6%, $p < .001$). Similarly, they are less likely to have parents who attend a school or class event (65.7% and 49.6%) than their peers with other disabilities (77.6% and 64%, $p < .001$).

Discussion

These results from SEELS and NLTS2 provide important new information about children and youth with ED and their families and strengthen some previous findings with the weight of studies using representative national samples. These findings about the characteristics of children and youth with ED and their households, the functional characteristics, and their education- and service-related experiences have implications for policy, practice, and future research.

The overrepresentation of males in the ED population confirms findings from previous studies. Likewise, SEELS and NLTS2 confirm a significant overrepresentation of African Americans identified as ED, while Hispanic children are underrepresented relative to their representation in the general population. Youth identified as ED tend to live in households in which there are multiple risk factors for poor life outcomes. Approximately one third live below the poverty level and in households headed by a single parent, and one fifth live in households in which the head of house is unemployed and not a high school graduate. A further indication of potential stress in these households is the finding that almost half (45%) of these students are reported to live in a household with another person who has a disability. All of these differences between children and youth

Table 7
Family Support for Education by Parents of Children and Youth With ED, With Other Disabilities, and in the General Population

	Elementary/middle school children			Secondary school youth		
Parent support	W/ED (%)	W/other disabilities (%)	General population[a] (%)	W/ED (%)	W/other disabilities (%)	General population[a] (%)
Help with homework five or more times a week	48.4	55.7* *5.44*	16.2*** *132.25*	18.2	21.7 *1.73*	2.5*** *50.93*
Volunteer at school	29.5	47.7*** *54.30*	39.4*** *22.22*	14.7	24.9*** *18.95*	25.6*** *36.70*
Attend a school or class event (e.g., science fair, sports event)	65.7	77.6*** *23.41*	67.8 *.91*	49.6	64.0*** *21.49*	57.2** *8.54*
Attend a parent–teacher conference	85.4	86.0 *.09*	79.8** *9.68*	73.2	72.9 *.01*	52.4*** *68.78*

Note. Across variables in Table 7, SEELS sample sizes for children with ED range from 615 to 859 and for children with other disabilities from 6,617 to 8,719. Across variables, NLTS2 sample sizes for youth with ED range from 664 to 790 and for youth with other disabilities from 6,644 to 8,036. *F* statistics are in italics.

[a]Data are for elementary school students (National Center for Education Statistics, 1998). [b]Data are calculated for 13- to 17-year-olds from the National Household Education Survey, 1999.

Comparisons with children/youth with ED statistically significant in a two-tailed test at the following levels: *$p < .05$. **$p < .01$. ***$p < .001$.

with ED and both those with other disabilities and those in the general population are statistically significant and large, indicating that the children and youth with ED are more likely to have each of these risk factors that are strongly associated with poor life outcomes.

Examining the complex relationship between race, poverty, and placement in special education programs is difficult, and there are no empirical investigations that adequately explore these three factors simultaneously on a national sample (Donovan & Cross, 2002). However, SEELS and NLTS2 have produced a preponderance of evidence supporting the seriousness of the economic stress in the families of children and youth with ED. With many of this group living in households with as many as five indicators of economic stress, the education system and the child-serving agencies in the community need to examine mechanisms to implement more collaborative approaches to programming aimed at reducing the impact of this stress on these students and their families. School-based programs that have effective, multiagency, collaborative mechanisms have been recommended in the report of the U.S. Surgeon General (U.S. Department of Health and Human Services, 1999) and, more recently, in the report of the President's New Freedom Commission on Mental Health (2003) as having great potential to meet the complex needs of children and youth with ED and their families. The findings from SEELS and NTLS2 suggest that these programs need to address the social, economic, and vocational needs of the children and youth identified by the schools as having ED and their families. Adequate funding and other supports at the federal, state, and local levels will be necessary to bring such programs to a scale necessary to achieve significant positive impact. Institutions of higher education also will need to be engaged to train a cadre of professionals from multidisciplinary and multicultural backgrounds to staff such programs (Adelman & Taylor, 2004).

Functional Characteristics

Disabling Conditions. There is a paucity of research focused on children and youth identified with ED and served in special education programs (Rones & Hoagwood, 2000). A major contribution of SEELS and NLTS2 is the advancement of the knowledge base about the characteristics and functioning of children and youth with ED using a national sample. The results indicate that children and youth with ED are a group that has serious, multiple, and complex problems. Parents report that a wide range of disabilities affect their children, including anxiety, bipolar disorder, depression, oppositional behavior, and psychosis. Almost two thirds of the students were reported to have ADHD, and one fourth were reported to have a learning disability in addition to ED.

Social Skills. SEELS and NLTS2 include several measures associated with the social functioning of children and youth. The results from these measures indicate lower functioning on overall social skills as well as in the subareas of self-control, assertion, and cooperation skills. It is interesting to note, however, that only about one fourth of elementary/middle school children with ED and one third of their older peers were reported to be deficient in social skills. This is of interest because social skills training is probably the most frequently used intervention for all students who are classified as ED (Landrum et al., 2003), yet the effectiveness of social skills training remains poor (Kavale & Forness, 2000).

Communication Skills. Deficiencies in both expressive and receptive language also were reported by parents of students in both studies. These findings are consistent with the conceptualization of language as a key factor in emotional development that has been discussed in the literature for decades (Bruner, 1971; Luria, 1971). However, the identification of language problems in students who have ED, even in their teenage years, continues, indicating an ongoing need to develop effective interventions in this domain (Rogers-Adkinson & Griffith, 1999).

Cognitive and Academic Functioning. Parents report that approximately 1% of the children and youth with ED have mental retardation as a secondary condition, whereas 2.5% of the elementary/middle school students and 1.8% of the secondary students participate in programs for the gifted and talented. Further, 27.7% of parents of the elementary/intermediate students with ED and 62.7% of secondary parents rate the cognitive functioning of their children as being high. On the other hand, the results from measures of academic achievement are low. In reading, more than 60% of the elementary/middle school children with ED are functioning in the lowest performing quartile, with another quarter at the second quartile. Their results are similar to those from students who have other disabilities, in many cases with serious cognitive deficits. These data confirm the low level of academic functioning in children and youth with ED, a frequently reported finding (e.g., Cullinan et al., 1992; Greenbaum et al., 1996; Kutash & Duchnowski, 2004; Kutash et al., 2000).

The findings from SEELS and NLTS2 also illustrate the complexity and diversity of the disability category called "emotional disturbance," as well as the impairment of these students across multiple domains. At the practice level, there needs to be an increase in effective curriculum (both academic and social/behavioral) and effective instructional strategies to implement this curriculum. The President's Commission on Excellence in Special Education (2002) has called for a shift from a culture of compliance to a culture of results in special education. This emphasis on improved outcomes also has been proposed in the No Child Left Behind Act, which refers to the use of evidence-based practices 110 times (Slavin, 2001). The continued use of standard practice will not achieve improved results, whether it is delivered in a self-contained classroom, total inclusion, or anything in between. Special educators who work with children and youth with ED need to plan and implement instructional programs that address multiple domains and take

into account the reciprocal relationship between behavior challenges and academic achievement. Such a comprehensive task illustrates the need for effective teacher support (Greenwood & Abbott, 2001) and collaboration with other child-serving agencies. Effective skill development to produce these plans by teachers and related service staff must begin at the preservice level and continue in a coordinated professional development program throughout their careers.

Education- and Service-Related Experiences

Age at Identification. The data reveal a gap of almost 2 years between the age at which parents report that a disability first was diagnosed among children and youth with ED and when services began. The onset of service delivery for children and youth with ED is 1 year later than for their peers with other disabilities, and as a group, children and youth with ED are less likely to receive early intervention services than their peers in the other disability groups. Although the gap in time between diagnosis and initiation of services has been noted in other studies (see Kutash et al., in press), the findings of the lag in initiating services and the reduced rate of delivering early intervention services compared with children in other disability groups is new and is based on data from a national sample. Taken together, these results are indicative of the difficulty of the service system to deliver intensive early intervention services to the most in need in a timely fashion. Kauffman (1999) has constructed a list of reasons often given for failing to effectively engage in prevention and early intervention for these students. Reasons for this failure include the following: economic (it would cost too much), theoretical (objecting to the medical model and failure-driven services), and an overriding concern for labels and stigma. He suggests that practitioners can do more to achieve better preventive and early intervention strategies by attending to early signs of aggressive and destructive behaviors, socialization to antisocial peer groups, and failure to meet academic expectations.

Past Education-Related Experiences. Although the literature indicates the importance to children of stability in their educational environment (Demie, 2002; Rumberger, 2002), children and youth with ED experience greater instability than other disability groups. They change schools more often than students in other disability groups and nondisabled peers, with one third of the elementary/middle school students and two thirds of the secondary students attending at least four different schools. Furthermore, an examination of the most recent move indicates that the students with ED are reassigned to new schools by their school district at a rate much higher than that of both their nondisabled peers and those in other disability groups. In addition, almost half of the elementary/middle school students and three fourths of the secondary students have been suspended or expelled. These rates are more than four times that of peers in other disability categories and of students in the general population. Additionally, students who have ED are retained significantly more often than their peers in general education but at the same rate as students in other categories of disability. These practices could be improved significantly if each school building developed the capacity to meet the needs of children and youth with ED so that they would not be shuffled from building to building within a school district. There are emerging models of programs indicating that when services are offered at the universal (i.e., schooolwide), targeted, and intensive levels of need, this capacity can be achieved. Such programs are commonly referred to as *positive behavioral interventions and supports* (Horner & Carr, 1997; Sugai et al., 2000).

Parents' Views and Behaviors. It is not surprising, in view of these results, that parents of students with ED are less satisfied with their children's schools, teachers, and special education services than parents of children in the other disability categories. In addition, these parents report having made a significantly greater effort than parents of students with other disabilities to get services. Mediation and due process hearings also are significantly more common among students with ED than among those in other disability categories. Nonetheless, parents of students with ED are more likely to help their children with homework and attend parent–teacher conferences than parents of students in the general population. They do not, however, volunteer at school or attend events in classrooms or schools as much as parents of students in general education, but those activities have not been found to be strong indicators of parent involvement (Baker & Soden, 1998). The indications of effective parent involvement found by the studies should caution teachers about holding stereotypic views about these parents. Often, the families are viewed as not engaged in and even not caring about the education of their children (Duchnowski, Dunlap, et al., 1995). The results presented here indicate that parents do help their children with homework and do attend conferences with teachers. Teachers should use these data to reformulate their perceptions of parents and build strong parent–teacher partnerships to improve student outcomes.

The combined effect of the late onset of services and the practices that lead to an unstable educational environment for these students points to a system in need of transformation at both the policy and practice level. The SEELS and NLTS2 data support ongoing efforts in both the education and mental health systems that are aimed at transformations to improve services for children and youth who have ED and their families. In the special education sector, the President's Commission on Excellence in Special Education (2002) concluded that special education was a system based on failure. Students typically fail for long periods of time before placement in special education. Once placed, these failures continue. The recommendations from the Commission include transforming the special education system from one that emphasizes compliance to one that is driven by improving outcomes for the children it serves; shifting parent involvement from an adversarial to a partnership relationship; and adopting a public health model that emphasizes prevention, early intervention, and effective treatment through

implementing evidence-based practices. A similar transformation has been called for in the mental health system, a system that the President's New Freedom Commission on Mental Health (2003) characterizes as "being in shambles." In a transformed mental health system, mental health care is consumer and family driven; access for all ethnic groups is equitable; and early mental health screening, assessment, and referral to services are common practice. The SEELS and NLTS2 data support the need for these transformations in both of these systems to serve children and youth with ED more effectively.

Future Research

Achieving the recommended changes in practice and policy will be enhanced by a research agenda that is guided by the findings of SEELS and NLTS2. For example, it is clear that children who are identified and served as ED represent a very diverse group of youth who exhibit a multitude of behavioral and academic challenges. Consequently, the field needs investigations that will demonstrate which interventions work best for whom and under what circumstances. OSEP's recent national behavior intervention research competition (CFDA 94.324P) is funding four intervention research centers and a national coordination center to use experimental studies to pursue just such an agenda. Further, investigations are needed to identify strategies that can sustain the use of evidence-based practices by teachers and related services providers under typical public school conditions (Greenwood & Abbott, 2001).

Research on the broad service delivery system needs to focus on how children who have ED can be assessed sooner and, most important, served sooner when a need is indicated. Reducing the current gap is critical for achieving more efficient delivery of early intervention services and the associated improved outcomes.

Finally, research that aims to improve the emotional functioning of children and youth must include the school context when examining effectiveness of services. As Farmer and Farmer (1999) cautioned, "An examination of treatment context without more fully recognizing the central role of educational context provides an incomplete, and potentially misleading approach to implementation and evaluation of mental health services and outcomes" (pp. 380–381).

Limitations

These two studies contain a number of limitations that should be considered when interpreting the results. The data from SEELS and NLTS2 are primarily from a single source, that is, the parents of students identified as having ED. While the measures of academic achievement were obtained directly from the students, the remainder of the information was obtained from the parents, and the results, consequently, are primarily based on their perceptions and experiences. In addition, students were included in the study only after their primary disability status was determined by local school staff. Although schools must follow prescribed federal procedures in the identification of students eligible for special education services, states have different definitions of eligibility for different disability categories, and the consistency in applying the procedures and definitions across schools cannot be assured. Likewise, these studies focused on students identified and served in special education programs. It should be acknowledged that there are other students with disabilities who are not placed in special education programs and therefore are not represented in the current studies.

Conclusion

In spite of the potential limitations noted above, SEELS and NLTS2 are producing important results that contribute to our understanding of children and youth with ED who are placed in special education programs. In addition, the results are important for other child-serving agencies, including children's mental health, child welfare, and the health care system. These studies indicate that children and youth identified as having ED, as a group, have impairments in multiple domains of functioning, but as individuals, they vary in terms of the number and intensity of the challenges they face. Dealing with this complexity will require an effectively coordinated, multidisciplinary, and multiagency approach to intervention that is also highly individualized.

Findings also indicate the size and breadth of the challenge to multiple communities, that is, policymakers, public school administrators, teachers and related services staff, university faculty, researchers, advocates, and families who are committed to improving the quality of life for these children and youth. Clearly, the education system does not have the resources or all of the expertise necessary to meet these multilevel challenges alone. Policies that promote systemic reform (Adelman & Taylor, 2004; Duchnowski, Kutash, & Knitzer, 1997) are needed to encourage the multiple agencies that have responsibility for these children and their families to come together with a shared vision that is focused on the students and their families. More than 20 years ago, Knitzer (1982) published the results of her landmark study, *Unclaimed Children*, which portrayed the difficulties facing children and youth with ED using data from case studies and targeted samples. The data from SEELS and NLTS2 on a nationally representative sample of substantial size demonstrate that although some progress has been made, the needs for system reform identified by Knitzer remain.

Support at the federal, state, and local policy levels will be critical to achieve this goal. The field needs mechanisms that supply incentives for communities to develop comprehensive, coordinated services that can more adequately address the multiple needs of these children and their families. SEELS and NLTS2 also have produced important information about the characteristics, perceptions, and involvement of the families of these children and youth. Colleges and universities need to develop effective preservice and inservice programs that are informed by the results of these studies to train the professionals who will effectively serve these children and their families. Al-

though the outcomes for students represented in SEELS and NLTS2 are still being investigated, it is not too early to begin looking at options for improving the quality of life for these students. A major implication from the results presented here is that the child-serving systems are waiting too long before implementing interventions. The field needs to increase efforts to develop effective intervention programs that are preventive, multifaceted, and aimed at the earliest intervention schedule that is feasible.

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Notes

1. Although direct assessment information eventually will be available for NLTS2, only data for SEELS are available at this time.
2. It is important to note that these are parents' reports of disabilities and it is unknown whether or which of these conditions qualify children and youth for special education services in the category of ED.
3. Comparisons with the general population are not available on the overall social skills scale or the cooperation subscale.
4. Calculated from the National Household Education Survey of 1996 using data for 6- to 13-year-olds and 13- to 17-year-olds.

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