

Blind Spot

The Impact of Missed Early Warning Signs on Children's Mental Health

Andrea M. Spencer, Ph.D.
Center for Children's Advocacy



The Center for Children's Advocacy's research for this report was funded by a grant from The Connecticut Health Foundation.

Andrea M. Spencer, Ph.D., is Dean of the School of Education at Pace University, New York, NY, and Educational Consultant to the Center for Children's Advocacy.

The author wishes to acknowledge the assistance of Hannah Benton, former Staff Attorney; Jay Sicklick, Deputy Director; and Martha Stone, Executive Director, Center for Children's Advocacy; Shelley Geballe, JD, PhD, Yale School of Public Health and the research of Christine Dang-Vu, Stephanie Platis, Emily Dally, Jared Augenstein, and Nicholas DeVito, graduate students of the Yale School of Public Health.

Center for Children's Advocacy
University of Connecticut School of Law
65 Elizabeth Street, Hartford, CT 06105
860-570-5327
www.kidscounsel.org

Blind Spot

The Impact of Missed Early Warning Signs on Children's Mental Health

Andrea M. Spencer, Ph.D.
Center for Children's Advocacy

Statistics indicate that in any given year more than one in five Connecticut children struggles with a mental health or substance abuse problem, often accompanied by poor academic performance, absenteeism, and other school-related difficulties.

A chronological review of school records of adolescents with academic, emotional and behavioral problems suggests risk factors in early childhood and elementary school are often overlooked, but that supportive, collaborative early identification and intervention hold promise for more positive outcomes.

Blind Spot

The Impact of Missed Early Warning Signs on Children's Mental Health

Andrea M. Spencer, Ph.D.

Center for Children's Advocacy

The Problem

In any given year, about one out of every five Connecticut children (87,500 to 125,000) struggles with a mental health condition or substance abuse problem. More than half receive no treatment.¹ The role of schools in the prevention of, identification of and intervention with mental health problems is particularly critical. For too many children, the interrelationship between mental health problems and poor academic outcomes is reflected in limited educational progress from their entry into school through their secondary school years. Difficulties emerge early, with rates for expulsion from pre-school exceeding those of children in Grades 1-12, according to a national study conducted by the Yale Child Study Center. The same study notes that Connecticut had one of the highest rates of expulsion from state-funded preschool, with more than 10 students expelled per 1000.²

National studies also indicate that, despite priority status with the Office of Special Education of the U.S. Department of Education, the educational, behavioral and social outcomes for students with emotional disorders continue to be the worst of any disability group. Students are often not identified for services in a timely manner, and, even when identified, access to appropriate and necessary services continues to be a problem.³ In addition, increasing accountability for instructional outcomes is rarely supported by the implementation of evidence-based practices that support students with behavioral, emotional and mental health problems, although such practices would promote successful learning outcomes for all students.⁴

To investigate the relationship between identified developmental, social, cognitive and academic risk factors, mental health and juvenile justice involvement in adolescence, the school records of children and adolescents referred for educational advocacy were examined. These children and adolescents were referred for advocacy between the ages of twelve and sixteen and attended school in three Connecticut urban centers. Their school records provide a multi-faceted chronological perspective on learning and behavioral outcomes of students, particularly of students from diverse cultural, linguistic, racial and ethnic backgrounds.

An in-depth descriptive review of individual school records produces stories like the following:

- **Josue** is a 15 year-old Hispanic boy who was born to a 12-year-old mother. His developmental history indicates that he had a history of early ear infections. In kindergarten, his learning struggles began with difficulties with auditory perception and memory and unclear speech. Despite reports that he was exposed to sexual abuse and severe domestic violence, his school records contain no evidence that these traumatic experiences were considered in responding to his continuing problems in school. He was retained in Grade 2. An English language learner, he was exited from bilingual services in Grade 4. At that time, a special education evaluation noted weaknesses in reading, mathematics and writing. By age 13, developmental and psychological evaluations noted diagnoses or symptoms of bipolar disorder, oppositional defiant disorder, depression, Attention Deficit/Hyperactivity Disorder (ADHD), and learning disabilities, although Josue's special education records only focused on services for ADHD. Despite his progress while placed in a special education program for Grade 8, Josue was placed in a full inclusion program for high school which provided only a small group skills lab, decoding instruction, and 45 minutes a week with a social worker. Without the supports of his prior placement, his behavior rapidly deteriorated, followed by suspensions from school and involvement with the juvenile justice system.
- **Arianna** is a 15-year-old bilingual Hispanic girl who was described during her earliest years in school as a hard worker who was motivated to succeed. At age 4, with a history of febrile seizures, she was referred for a speech and language evaluation which revealed severely delayed expressive language. Special education services including a full-time bilingual language and learning disabilities program were recommended. At this time, her language and learning abilities were two to three years behind her age and grade level expectations. School records noted that she struggled to retain information well and had visual-motor problems, including visual memory, long term retrieval, and visual motor integration skills that were significantly below average. She was retained in Grade 4 and promoted by exception (social promotion) in Grades 3, 4, 5, 6, 7, and 8. Although case notes indicate that difficulties in language were impacting all academic areas, her speech and language services were reduced by half in Grade 4 and were discontinued in Grade 6. She was described as having difficulty with peers, showing low motivation for school work, and showing a lack of self-control. By the start of Grade 8, she was performing only at third grade level in mathematics and second grade level in language arts. She had received at least one out-of-school suspension for fighting. She was recommended to continue in a full-time bilingual special education program at the high school level. However, despite a long history academic struggles, and a documented lack of progress, no additional services were recommended for Arianna.
- **Jaden** is a 14-year-old African-American boy with Sickel Cell trait who began to develop language early but stopped talking at about a year and a half. Although he attended a pre-school with speech-language services, by the time he began school, his language was difficult to understand and he showed limited social reciprocity, echolalia, and perseverative behavior. He was upset by changes in routine, but was seen as hardworking, highly creative and, given clear structure, was able to work well. At age 7, a developmental pediatrics

screening recommended that he be evaluated to rule out Fragile X syndrome. There is no indication that further screening was carried out. By Grade 4, he continued to show deficits in oral expression and language, as well as interpretation of social cues and nonverbal language. At age 11, he was diagnosed with Pervasive Developmental Disorder (PDD) and Intermittent Explosive Disorder. A core feature of the PDD was a tendency toward aggressive outbursts stemming from misinterpretations of social cues and situations. He was placed in a self-contained, full-time special education setting. By age 12, he was provided with a 1:1 paraprofessional due to angry, aggressive outbursts. At age 13, his academic skills lay between second and third grade. As a 9th grade special education student in a public high school, he continued to exhibit language and communication problems, which were thought to be a reflection of an underlying thought disorder.

These vignettes are only a few examples of the educational chronologies of the children and adolescents whose school records comprise this study (see Table 1). Unfortunately, they represent a much greater problem. Without interventions in response to early warning signs, including accessible mental health resources to support them and their families, their futures as productive and satisfied members of our communities are imperiled. The need for better educational and mental health support is particularly acute for children like Josue, Arianna and Jaden whose life experiences are also constrained by poverty.

Recent research indicates that 6.6% of children whose family income was less than the federal poverty threshold had severe emotional or behavioral difficulties compared with 4.2% of children whose family income was above the federal poverty threshold.⁵ Children of low-income, depressed mothers had more behavioral and emotional problems^{6,7} and children of teen mothers were at elevated risk for psychiatric disorders, physical and cognitive problems,⁸ social impairment and school failure.⁹ The multi-generational impact of children's mental health problems is also evidenced in a U.S. Panel Study of Income Dynamics (PSI), which estimates long-term economic damages of childhood psychological problems at a lifetime cost in lost family income of approximately \$300,000, and a total economic cost for all those affected of \$2.1 trillion.¹⁰

Other studies of young adults from urban, socioeconomically disadvantaged communities report high rates of adverse early childhood experiences (for example, marital separation, parental unemployment, substance abuse, physical or sexual abuse, being threatened or witnessing violence) which have been consistently linked to psychiatric difficulties persisting into adulthood.¹¹ Exposure to trauma in childhood is also associated with youth in juvenile detention,¹² where more than 90% of participants may have experienced significant traumatic events in earlier years.¹³

Within the community, schools and classrooms are often the stage upon which mental health problems first appear, especially in poor, urban communities. However, despite a climate of increasing accountability for education, the critical influence of children's mental health on success in the classroom has received little attention. This longitudinal study of children in an urban Connecticut community bears witness to some of the ways in which a failure to promptly and adequately address mental health problems impacts learning outcomes.

Methodology

This study was designed to analyze school records in an effort to identify patterns that could be helpful in designing or strengthening identification and intervention strategies to reduce or prevent serious mental health issues in early adolescence (the age and grade band between 7th and 9th grades).

Key research questions were:

Among 7th, 8th, and 9th grade students who have mental health problems, or who are at risk for mental health problems, how early did indicators that they were at risk of developing mental health problems appear in the school setting?

1. Among the sample population, what are the types of developmental and social risk factors associated with behavioral and mental health problems in early adolescence?
2. When problems or indications of future mental health problems appeared in the school setting, what services did the children receive?

Cases in this study were drawn from school records of 314 students ages twelve to sixteen who had been referred to an area advocacy centerⁱ because of persistent school failure, truancy, juvenile justice involvement or other court involvement. Students who were younger than the target age range of the study were excluded from the sample, as were two students whose records reflected severe cognitive or developmental delays. Consequently, the primary investigator conducted in-depth analysis for a subset of 102 cases of youth referred to the area advocacy center between age twelve and sixteen (equivalent to school placement in Grades 6-9).ⁱⁱ Ninety-seven percent of cases were drawn from one urban school district, with the remainder of the cases from other surrounding school districts.

As of the 2010-2011 school year, the primary school district included more than 20,899 students, of whom 91% are eligible for free or reduced lunch. Seventy-four percent of students in the school district had attended preschool, nursery school, or Head Start, in comparison 67% of students in comparable districts,ⁱⁱⁱ 80% of students statewide and 94.9% in the most affluent districts in the state.^{iv} Ninety-two per cent of students are children or color, with more than 51% of students from Hispanic/Latino backgrounds. Forty percent of students speak a language other than English at home, with over 70 languages other than English spoken among families in the district.^v

ⁱ The Center for Children's Advocacy (CCA) is a Connecticut nonprofit law firm with offices in Hartford and Bridgeport. CCA's mission is to promote and protect the legal rights and interests of poor children who are dependent upon the judicial, child welfare, health and mental health, education, and juvenile justice systems for their care.

ⁱⁱ While initial plans had been to focus on Grades 6,7,8, the frequency of students who were over age in grade (e.g. had been retained or otherwise were placed in grades below their expected age) led to a cohort selected based on age, rather than grade level.

ⁱⁱⁱ The district is categorized by the Connecticut State Education Department as falling in the District Reference Group (DRG) I, placing it among the poorest and highest need districts in the state.

^{iv} Connecticut State Department of Education (2009-2010). Strategic School Profile Report. Retrieved from the Web on January 12, 2012 at <http://sdeportal.ct.gov/Cedar/WEB/ResearchandReports/SSPReports.aspx>.

Based on narrative descriptions, school achievement reports, and formal evaluations included in the chronological school record, the primary investigator classified cases as primarily showing evidence of:

1. Mental health problems

Students with psychiatric diagnoses, history of psychiatric hospitalizations, or descriptors indicating psychiatric conditions such as anxiety and depression, but without significant behavioral indicators;

2. Behavioral issues

Students with strong behavioral indicators but without psychiatric labels

3. Combined behavioral and mental health difficulties

Students who have both significant behavior problems accompanied by psychiatric diagnoses, or psychiatric hospitalizations.

Among students in the subset, school records reflected great variation in access to services prior to elementary school, with some records showing students receiving services through Birth-to-Three and others showing students who entered the educational system after the traditional kindergarten entry point. Moreover, the school records themselves evidenced wide variation in their organization and content. For students who had not been declared eligible for special education, cumulative records typically provided report cards, standardized test scores, attendance patterns, disciplinary incidents, the number of schools attended, indications of retention or promotion by exception^{vi} and brief end-of-year comments by each teacher. Cumulative records for students who had, at some point, been declared eligible for special education typically included periodic formal evaluations at triennial dates, although there were often gaps in the chronology of Individual Education Plans (IEPs). Some records included samples of student work, standardized achievement scores, and other useful data, but contents of individual records were often in disarray.

Findings

Data from the 102 school case records selected, while inconsistent in organization and contents, provided a rich array of information about the lives and learning of children in an urban school district with a high percentage of children from non-white backgrounds and non-English speaking homes. All of the adolescents in the sample had evidence of significant behavioral and/or mental health problems and 51% had or were at-risk of court-involvement, juvenile justice intervention, or through court referral for families with service needs. Multiple school suspensions, aggressive incidents, and explosive or disruptive behavior were common (82%). Depression (25%), anxiety disorders (20%), post-traumatic stress disorders (17%), suicidal and self-injurious behaviors (16%) were evident as well, with 17% of students documented as having been hospitalized in psychiatric settings, some for multiple times or for extended periods. Twelve per cent of records contained reports of physical, emotional, or sexual child abuse. It should be noted that records for 29 (28%) students in the sample contained no information about early development or social/familial factors

that might influence children in school, suggesting that the rates of court involvement, child abuse and other adverse conditions among this population may be higher than indicated by these data.

The following are additional descriptive data that respond to three primary research questions, including evidence of factors that further reinforce existing research concerning the identification, prevention and intervention initiatives that support children's mental health.

Question 1

Among 7th, 8th, and 9th grade students who have mental health problems, or who are at risk for mental health problems, how early did indicators that they were at risk of developing mental health problems appear in the school setting?

Table 1 provides a graph depicting the age at which students who were later described as at risk for school failure and mental health problems first became known to educators, health services and other providers. As described in the methodology section, cases were grouped, based on descriptors in the records, into three broad categories or classifications:

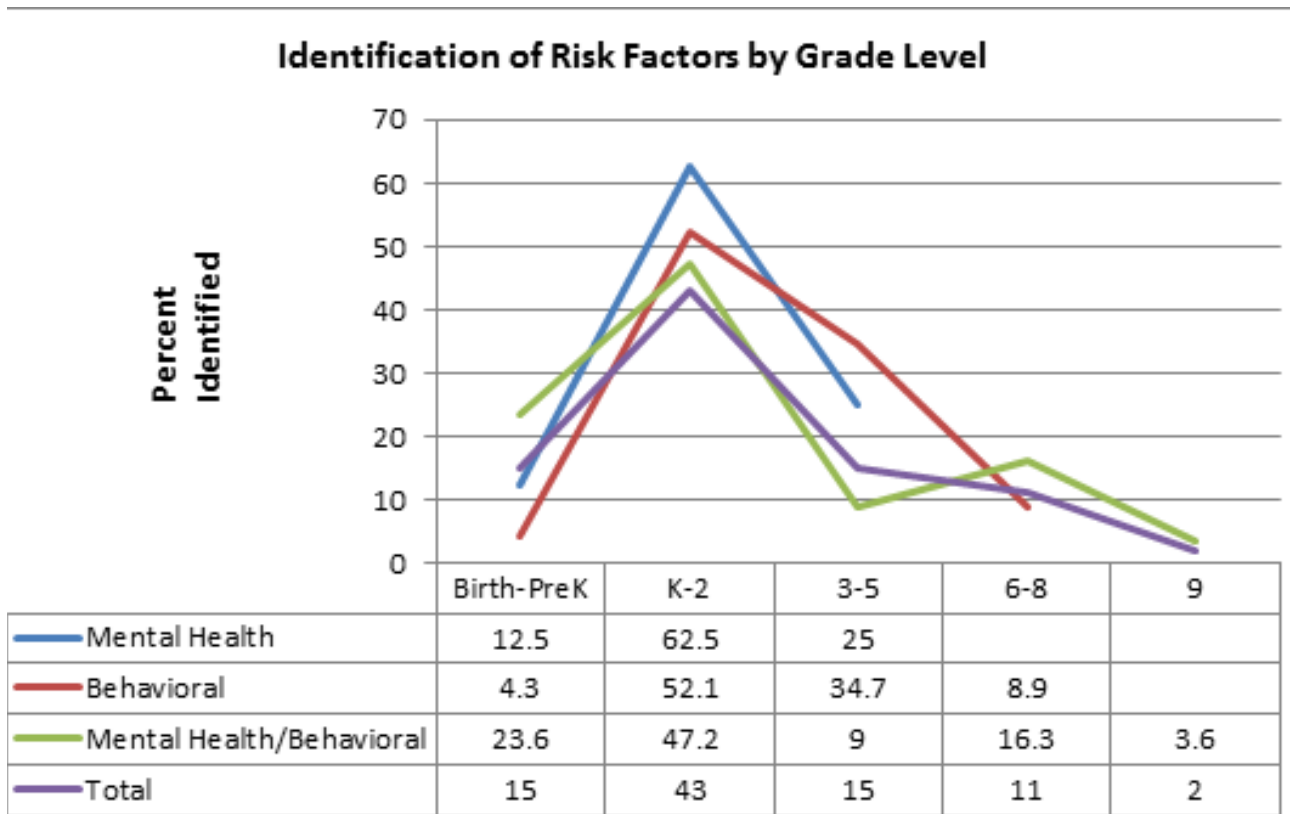
1. Mental health group
2. Behavioral group
3. Combined behavioral/mental health group

These groupings are reflected in Table 1.

As Table 1 indicates, among available records there was some variation in the age at which indicators of potential risk appeared in the school records of children across the three classifications. Children who eventually developed a combination of behavioral and mental health indicators (the largest group) were almost twice as likely to have risk factors appear in school records during the Birth-PreK age span. For all groups, peak appearance of risk factors was within the K-2 grade band, with a slight up-tick for students in the combined behavior/mental health group in middle school years.

Table 1

Grade Level of First Appearance of Mental Health Risk Factors in School Records
(n=100)



Question 2

Among the sample population, how frequently do developmental and social risk factors appear in school records?

Table 2 describes the frequency of developmental and social risk indicators associated with behavioral and mental health issues for young adolescents in middle and high school classrooms. Early risk factors are those developmental, genetic, physical, or health issues that may place children at risk of mental health issues in childhood or adolescence. Examples include prenatal exposure to drugs,¹⁵ history of lead poisoning,^{16,17} sickle cell anemia¹⁸ and history of head trauma.¹⁹ There is evidence that a number of other chronic health conditions, such as asthma,²⁰ ear infections and other medical conditions impact not only school success, but also appear to have a complicated relationships to psychosocial and mental health status^{21,22,23}.

One hundred percent of boys in the mental health classification showed early developmental risk indicators as compared with half of the girls in the same classification. Overall, slightly more than half of the boys showed some evidence in school records of early risk developmental factors. The

pattern for girls is somewhat different, with a range of 38%-50% showing evidence of early developmental risk factors, with the highest being in the mental health classification. However, small numbers in this category limit conclusions.

Adverse social factors with a potential for influencing mental health include interrupted schooling, parental loss/incarceration, homelessness, foster placements, exposure to domestic violence, abuse, and other traumatic experiences.²⁴ The frequency of social risk factors for boys was approximately 40% across all classifications, suggesting that social risk factors are a concern for adolescent boys with different levels and combinations of behavioral and mental health problems. However, social risk factors were present for nearly two-thirds of girls in the sample in the combined behavior/mental health classification. Much smaller percentages of social risk factors were noted for girls in the other two categories, suggesting that social risk factors are more likely to be associated with a combination of both behavioral and mental health problems for adolescent girls.

Table 2

Developmental and Social Risk Factors Associated with Behavioral and Mental Health Issues in School

(n=102)

Category	Total Studied %		External Influences %					
			Early Risk Factors			Social Factors		
	M	F	M	F	Total	M	F	Total
Behavior (34)	61.7 (21)	38.2 (13)	33.3 (7)	38.4 (5)	35.3 (12)	42.8 (9)	15.3 (2)	32.3 (11)
Mental Health (9)	55.5 (5)	44.4 (4)	100.0 (5)	50.0 (2)	77.7 (7)	40.0 (2)	25.0 (1)	33.3 (3)
Behavior/ Mental Health (59)	61.0 (36)	38.9 (23)	55.5 (20)	47.8 (11)	52.5 (31)	44.4 (16)	60.8 (14)	50.8 (30)
Total Subset with Behavior and Mental Health Indicators(102)	60.7 (62)	39.2 (40)	51.6 (32)	45.0 (18)	49.0 (50)	43.5 (27)	42.5 (17)	43.1 (44)

Numbers in parentheses represent the actual number of individuals in that category.

Early Risk Factors: Asthma; medical issues; lead poisoning; history of head injuries; multiple ear infections; chronic diseases (Sickle Cell); history of maternal substance abuse, etc.

Social Factors: Late entry into school district; interrupted schooling; parental loss/incarceration; homelessness; foster placement.

In addition to descriptions of developmental and social/familial risk factors, school records also contain information and assessments regarding how children perform in relation to academic expectations. Table 3 provides a summary of the data concerning learning-related variables associated with emotional/behavioral disorders and mental health. These include cognitive/information processing profiles,²⁵ academic performance and learning outcomes,²⁶ and aspects of language functioning^{27,28} that relate to mental health and academic success. Given the evidence in these records, learning-related risk factors seem to also be tied to behavioral and mental health problems in adolescence, calling into question the sufficiency of the schools' response to these struggling learners.

These data suggest additional implications for prevention and intervention. Educational indicators show high rates of cognitive problems for both males and females, with 90% of boys exhibiting one or more cognitive difficulties with memory, auditory and visual processing deficits, speed of information processing, and/or organizational problems. While rates of similar problems are not as high for girls, nearly three-quarters also show processing deficits. Academic delays and performance issues follow, with more than 85% of both boys and girls showing evidence of academic struggles as evidenced by poor or failing grades, inadequate progress toward state learning standards, and specific difficulties with literacy and numeracy. Language delays are also a prominent feature of individual profiles in more than two-thirds of this sample, with boys again showing higher percentages (75% vs. 67%) of language issues than girls across all three classifications. Highest rates for both boys and girls occurred within the combined behavior/mental health classification. The use of retentions and social promotions was consistently higher among girls, except for those students with behavior problems.

Table 3

**Educational Indicators
Associated with Behavioral
and Mental Health Issues
in School
(n=102)**

Category	Total Studied %		Educational Influences %														
			Cognitive			Academic			Language			Special Ed Eligibility			Retention or PBE		
	M	F	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Behavior (34)	61.7 (21)	38.2 (13)	90.4 (19)	61.5 (8)	79.4 (27)	85.7 (18)	76.9 (10)	82.4 (28)	71.4 (15)	61.5 (8)	67.6 (23)	23.8 (15)	30.7 (4)	55.8 (19)	66.6 (14)	38.5 (5)	55.8 (19)
Mental Health (9)	55.5 (5)	44.4 (4)	60.0 (3)	22.2 (2)	55.5 (5)	80.0 (4)	75.0 (3)	77.7 (7)	60.0 (3)	50.0 (2)	55.5 (5)	60.0 (3)	25.0 (1)	44.4 (4)	40.0 (2)	75.0 (3)	55.5 (5)
Behavior/ Mental Health (59)	61.0 (36)	38.9 (23)	94.4 (34)	86.9 (20)	91.5 (54)	91.6 (33)	91.3 (21)	91.5 (54)	77.7 (28)	73.9 (17)	76.2 (45)	94.4 (34)	82.6 (19)	89.8 (53)	30.5 (11)	60.8 (14)	42.4 (25)
Total Subset with Behavior and Mental Health Indicators (102)	60.7 (62)	39.2 (40)	90.3 (56)	75.0 (30)	84.3 (86)	88.7 (55)	85.0 (34)	87.2 (89)	74.1 (46)	67.5 (27)	71.5 (73)	83.8 (52)	60.0 (24)	74.5 (76)	43.5 (27)	55.5 (22)	48.0 (49)

Numbers in parenthesis represent the actual number of individuals in that category.

Cognitive: IQ scores with significant differentials; information processing deficits (memory, processing speed, etc); attentional and organizational problems.

Academic: Standardized academic assessments; grades.

Language: Delays in language development; articulation disorders; receptive, expressive, pragmatic language disorders.

Retentions/Promotions By Exception (PBE): Data does not show multiple retentions and promotions (sometimes as many as five for one individual).

Question 3

When problems or indications of future mental health problems appeared in the school setting, what services did the children receive?

Services provided to children and adolescents in public schools are often difficult to discern with any certainty. In some circumstances, although evaluations or services were recommended, it was difficult to ascertain whether the services had actually been delivered.

Records most frequently indicated that special education services were provided to students. Although three-fourths of the students in the sample had been declared eligible for special education, ninety-five percent of those receiving special education services continued to exhibit significant academic delays and school failure. Boys were 24% more likely than girls to have received special education services, despite the girls' similar indicators of academic and emotional/behavioral problems. Half of the students in the sample had been retained or promoted by exception at least once, with girls in the behavior/mental health classification retained or promoted by exception at twice the rates of boys. The statistic was nearly the reverse for the behavior classification, with two-thirds of the boys (compared with 38% of girls) retained or promoted by exception.

Taken together, these findings suggest that girls experiencing emotional and behavioral issues were less likely to receive special education services and more likely to be retained or socially promoted than boys. Of special concern are the one out of four students who did not receive special education services despite documentation of emotional and behavioral problems and poor academic progress.

Data in Table 4 represent children who were classified as eligible for special education. Based on available records, one-third of boys were categorized as having learning disabilities, while only 12% of girls received this label. Conversely, girls were classified somewhat more frequently (56% vs. 47%) as meeting criteria for emotional disturbance when they exhibited indicators of behavioral, as well as mental health/emotional difficulties. Overall, slightly more than one-third of students were classified as having emotional disturbance consistent with Connecticut State Education Department criteria, while one-fourth were classified as having learning disabilities.

Table 4

Special Education Eligibility for Students with Behavioral and Mental Health Indicators

(n=102)

One-fourth of cases did not show evidence of eligibility for special education services. A closer look at records of these students indicates that most had academic difficulties and delays, combined with disruptive, defiant behavior, multiple suspensions, school avoidance and truancy issues. Several carried formal mental health diagnoses and records included a history of psychiatric hospitalization.

Category	Total Studied %		Special Education Eligibility %															
			Learning Disabilities				Emotional Disturbance				Other				Not Identified			
	M	F	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	
Behavior (34)	61.7 (21)	38.2 (13)	47.6 (10)	15.3 (2)	35.3 (12)	23.8 (5)	0.0 (0)	14.7 (5)	0.0 (0)	15.4 (2)	5.8 (2)	0.0 (0)	0.0 (0)	11.1 (1)	33.3 (7)	61.5 (8)	47.1 (15)	
Mental Health (9)	55.5 (5)	44.4 (4)	20.0 (1)	0.0 (0)	11.1 (1)	40.0 (2)	0.0 (0)	22.2 (2)	20.0 (1)	0.0 (0)	11.1 (1)	40.0 (2)	0.0 (0)	40.0 (2)	75.0 (3)	55.5 (5)		
Behavior/ Mental Health (59)	61.0 (36)	38.9 (23)	27.7 (10)	13.0 (3)	22.0 (13)	47.2 (17)	56.5 (13)	50.8 (30)	19.4 (7)	13.0 (3)	16.9 (10)	47.2 (17)	56.5 (13)	50.8 (30)	8.3 (3)	13.0 (3)	10.2 (6)	
Total Subset with Behavior and Mental Health Indicators (102)	60.7 (62)	39.2 (40)	33.8 (21)	12.5 (5)	25.4 (26)	38.7 (24)	32.5 (13)	36.2 (37)	12.9 (8)	12.5 (5)	12.7 (13)	38.7 (24)	32.5 (13)	36.2 (37)	17.7 (12)	37.5 (14)	25.4 (26)	

Sample Descriptors of Students with No Record of Receiving Special Education Services

Anxiety, depression, information processing problems and academic delays

Phobia, Obsessive-Compulsive Disorder (OCD) and high rate of absenteeism

Severe disruptive behavior, multiple suspensions and attentional problems

Genetic disorder with elevated levels of anxiety, disruptive behavior, poor anger management, slow processing speed

Disruptive behavior, anger management problems and truancy with reading and math deficits

Truancy, distractibility, attentional problems, multiple suspensions and reading, math and writing difficulties

Disruptive, defiant behavior with multiple suspensions, attentional problems with academic difficulty since first grade

Attentional issues, multiple suspensions for disruptive behavior, severe attendance problems, expulsion for possession of marijuana

Defiant behavior, multiple suspensions, poor organizational skills, reading comprehension, math computation and problem-solving difficulties

Identified with attentional problems in Grade 2, severe attendance problems, disruptive behavior, distractibility, difficulty with mathematics

High rates of absenteeism in kindergarten, disruptive behavior, multiple suspensions, ongoing attendance problems, reading and writing difficulties

Identified in kindergarten but did not show discrepancy between ability and achievement, Impulsive, disruptive behaviors, multiple suspensions, auditory memory problems

Exited from pre-school due to excessive absences, attention and conduct problems in kindergarten, defiant, disruptive behavior, difficulty in all academic areas

Excessive absences in kindergarten, question of school phobia with continuing absenteeism resulting in two full years of lost schooling by Grade 8

Another notable concern, in reviewing data, is the high frequency of multiple out-of-school suspensions. Among the three categories of children identified in the study, 13% of students with primary mental health problems; 88% of students with primary behavior problems; and 46% of children having symptoms of mental health and behavior problems had experienced multiple suspensions. The use of multiple suspensions as a response to problem behaviors does little to address problems other than to provide a period of relief from persistent behavioral issues. Research indicates that school suspensions do not impact inappropriate behavior or increase the likelihood of successful learning outcomes. Further, it correlates significantly with poor academic achievement, grade retention, delinquency and school-drop-out, student disaffection and alienation.²⁹

Table 5

Incidence of Suspensions

(n=100)

Category	Documentation of 1 OSS in Records	Documentation of More than 1 OSS in Records
Behavior	18%	70%
Mental Health	13%	0%
Behavior and Mental Health	5%	41%
Total	10%	47%

OSS: Out of School Suspension

However, Table 6 lists the kinds of services or interventions most frequently included in the educational records of children at risk for mental health problems in adolescence. Services have been ordered from least to most restrictive.

Table 6

Services Provided to Children at Risk of Future Mental Health Problems

Category	Services Provided %						
	Social Work	Speech - Language	1:1 (Aide)	Self-Contained/ Segregated	Reduced Schedule	Homebound Instruction	Psychiatric Hospitalization
Mental Health (8)	0	25	0	0	13	25	25
Behavior (33)	27	18	3	27	0	10	0
Mental Health/ Behavior (59)	44	24	8	42	12	8	48
Total	35	22	6	34	8	10	18

A closer look at the types and timing of services in individual records identifies some significant concerns. Psychiatric hospitalization, the most restrictive intervention, was a part of school records for nearly half of the students who evidenced combined emotional and behavioral disorders and one-third of the group also were placed in self-contained or segregated settings within or outside of their home school district. Social work services were provided for almost half of the students who fell in the mental health/behavioral category and for a third of students overall. However, services were typically allocated at a rate of 30 minutes/week. In the lives of these children, such brief contact probably offers little either as prevention or intervention.

Additionally, speech and language services were frequently terminated in middle elementary grades just as academic language demands begin to increase exponentially within the curriculum. Among students with primary emotional or mental health problems, one-quarter had been placed on homebound instruction, with the same percentage experiencing psychiatric hospitalization – the most restrictive of possible interventions – suggesting that support services provided in schools were insufficient, since these students did not access either 1:1 or self-contained settings. The sample size makes it impossible to draw conclusions about this population in general, but does suggest that the system lacks resources to appropriately serve these children and indicates a focused review of such cases across the population of students served through the most restrictive interventions.

Discussion

The data in this study were drawn from public school records. While many of these records were incomplete and poorly-organized, they provide documentation of the numerous risk factors that threaten the mental health of children and adolescents in a largely minority urban school district in the northeastern U.S. Disparities in mental health treatment for racial and ethnic minority groups have been well-documented. Within the community, inadequate detection of psychiatric conditions by primary care physicians, lack of accessible mental health resources, and inadequate insurance coverage all play a role, as does the lack of preparation of many mental health professionals in understanding the mental health needs of children and families from diverse cultural, linguistic, and ethnic backgrounds.³⁰

The majority of students in the sample (see Table 1) have significant risk factors reflected in their school records, including developmental and social risk factors that were evident as early as Grades K-2, or even earlier. Because students in our sample often experienced both these risk factors as well as ongoing academic struggles, the early identification of students with multiple issues is especially important both for preventing mental health problems in adolescence and for positive long-term academic outcomes.

Other international research indicates that mental health issues in first grade are predictive of achievement in the fourth grade, suggesting the urgency of attention and intervention for children in the early grades.³¹ These data complement that contained in case records in this study, illustrated by the three vignettes in the introduction, reinforcing current research concerning the precursors of mental health issues in adolescence and illuminate the information available to schools regarding these mental health risks.

Key issues include:

1. Developmental challenges and the absence of consistent family structures and supports

Half of the children in this study had experienced developmental challenges including prematurity, exposure to drugs *in utero*, high lead levels, illnesses, etc. While there is little current research on mental health and children in out-of-home care, a significant gap exists between those who need services and those who receive them.³²

2. Failure on the part of schools to recognize and address multiple adverse events that seriously impact the lives and learning of children

Twenty-five percent of this sample (25 children) had documented trauma and/or diagnoses of Post-Traumatic Stress Disorder (PTSD), including children who had been the targets of teasing and bullying as well as youth who had experienced parental incarceration, death or serious illness of caregivers, disruption of family life and culture, and multiple foster home placements. Depression, anxiety, trauma, grief and loss are inextricably bound up with the school chronologies of many of these students. Current research attests to the fact that the number of traumatic life events children experience has a highly significant effect on their future mental health. For child mental health, the cumulative effect of multiple life events was found to be much more important than the effect of specific single life events.³³

3. Failure to recognize and respond to behavior patterns that mask underlying learning disorders and mental health problems

More than half of the students in this sample had or were at-risk for involvement with juvenile justice systems including, but not limited to a truancy court prevention program, court involvement and placement in juvenile detention. Statistics indicate that among detained youth there are often histories of child abuse, which is highly associated with psychiatric disorders.³⁴ Research is beginning to clarify the relationship between problem behaviors, academic difficulties and mental health issues³⁵ as well as developmental³⁶ and behavioral trajectories³⁷ that are predictive of mental health issues in adolescence.

Despite the vast majority of records that included evidence of academic difficulties, retentions and social promotions, as well as serious behavioral and emotional indicators, twenty-five per cent of the sample had not been evaluated and/or declared eligible for special education services (see Table 3). For those who had been found eligible for special education, 95% still struggled academically. Particularly noteworthy among students who did *not* receive special education services are high incidences of disruptive, defiant behavior, multiple suspensions and absenteeism or truancy in combination with academic delays and difficulties.

Given emerging research suggesting that challenging behavior masks underlying mental health issues and learning disorders, the failure of these students to receive referrals for special education evaluations in light of the intensive nature of their problems is troubling. This failure also suggests that these children are not only experiencing continued stress, frustration, and academic failure in the context of the school, but are essentially being denied the “free and appropriate public education” they may require. In effect, many opt out – some very early – from situations in which they see little hope for success. There is a significant amount

of research suggesting that teachers, related service providers and others who work with children are inadequately prepared to recognize and respond to the mental health needs of children in schools and community settings.^{38,39,40}

And, as is the case with the children in this study, many parents, particularly those who are not proficient in English, may have little knowledge of the school district's responsibility to identify and meet the needs of children like Josue, Arianna and Jaden, who showed early indicators that they were at risk.

Recommendations

These data suggest the critical importance of schools playing a central role in recognizing and responding to children's mental health needs. Although only a small percentage of children and adolescents receive needed mental health services, schools are the most common settings in which children access this care.⁴¹ Data also suggest that delivery of mental health services in school settings is more successful in reaching youths from ethnic minority groups and students with less visible problems such as anxiety and depression who are unlikely to access services in specialty mental health settings.⁴²

By recognizing the potential of schools to identify students with mental health needs, Connecticut can bridge gaps in availability and accessibility of mental health services. State and local government, boards of education and medical and mental health providers should support the following initiatives:

1. Improve screening for mental health risk factors

a) Improve the process of Medicaid reimbursement available under present coding to primary care physicians as a function of Early Periodic Screening, Diagnosis and Treatment (EPSDT) for performing a standardized mental health screen at all well-child visits. Most primary care physicians are not screening 0-5 because they don't know reimbursement is available or because they are wary of finding accessible mental health interventions to address positive screens. Hospital and health center based clinics are most likely to conduct the screening, but an effective referral system is lacking. EPSDT also finances diagnostic and treatment services, if medically necessary, for these conditions. The State of Massachusetts, using an automated referral system, increased the number of children who were screened for mental health issues by over four times in less than two years.⁴³

b) Institute electronic school records including developmental and family histories, chronological data relating to educational progress, and, where possible, integrating information provided by health care, educational, and community-based service providers to ensure that complete, accessible, accurate and well-organized information is readily available to school personnel. Assign school staff to regularly review developmental, social, and cognitive information to identify potential risk factors for mental health difficulties and to convene teams of school staff to implement effective preventive and intervention initiatives when risk factors are identified.

2. Improve referral to early intervention services, including mental health and special education services, and improve collaboration between service providers

a) Improve and create greater access to early intervention services for children with emotional, developmental and mental health challenges with the goal of serving a broader segment of our infants and toddlers and their families. Early intervention services, often provided in children's homes, help children achieve optimal developmental outcomes and offer families greater knowledge to meet their children's needs. Through the use of standardized screening tools and improved collaboration between medical, child welfare and early intervention service providers, we can increase the number of children who receive these critical services. Consistent with requirements under the federal Child Abuse Prevention and Treatment Act, we must ensure increased screening and referral efforts for children who have been subjected to abuse or neglect. Finally, we should ensure that our early intervention system has the capacity to readily meet the needs of children suffering from infant mental health challenges, who are exposed to significant environmental risk factors, or who are at risk of substantial delay.

b) Require that school-based health clinics refer children who are found to be at risk for mental health issues for comprehensive special education evaluation whenever academic, behavioral, or attendance concerns are also present. This referral source will help schools comply with their "Child Find" requirements under federal and state law to identify and evaluate children who may require special education services

c) Utilize existing networks of resources for support services. Connecticut is a member of the National Academy for State Health Policy (NASHP) and a participant in a program to Assure Better Child Health and Development (ABCD). The NASHP works with states to connect the many agencies that must work together to effectively and appropriately identify and address the needs of pregnant women, youth in foster care or the juvenile justice system, young children, adolescents, racial and ethnic minority populations, and others, including mental health services. NASHP's child development areas focus particularly on preventive care of children, whose health care is covered by state health care programs, especially Medicaid. NASHP's ABCD Resource Center, which provides state policymakers, primary care providers and other child and family service providers with easy access to research and resources that they can use to promote early childhood health and development.⁴⁴ Making such networks more visible in, and accessible to schools could provide improved access to needed services for children in urban classrooms.

3. Improve community and parent education around mental health risk factors and services available to students

a) Ensure that culturally competent educational and culturally competent professionals provide families with clear and detailed information regarding the obligation of the school district to refer students to planning and placement teams for special education evaluation.

b) Through community-based medical and social services providers, educate low-income families about risk factors, resources and referral procedures in relation to mental health and special education services, even for very young children. Connecticut Birth-Three services provide an array of information with links to the Center on the Social and Emotional Foundations for Early Learn-

ing (CSEFEL) with “what works” briefs in English and Spanish housed at Vanderbilt University.⁴⁵ However, it is unclear to what degree information about these resources is available to the general public, particularly to poor families with limited or non-existent access to web-based resources.

c) Link information regarding community-based prevention initiatives to school-based services. The Connecticut Department of Mental Health and Addiction Services (DMHAS) maintains a community-based infrastructure of prevention initiatives including a multicultural Leadership Institute. The State Department of Education Primary Mental Health Program is designed to assist schools with early detection and prevention of school adjustment problems in primary grade children through school-based teams including teachers, administrators, mental health professionals, parents and counselor assistants. However, the websites for three of Connecticut’s largest urban school districts (Hartford, New Haven, Bridgeport) do not provide accessible information about such services. Linking this information to school websites would help communities and families better understand resources available to children who may be at risk of mental health problems.

4. Improve training and accountability for school staff, medical and other service providers.

a) Require curriculum components focused on early identification of mental health problems for children and adolescents, including systemic gender bias evident in this report, in the preparation of teachers, physicians, social workers and other licensed human service providers, including required referral to Birth-Three, early childhood and school-age special education evaluation teams.

b) Incorporate concerns for, and attention to, child mental health in assessing academic achievement in relation to state standards in accordance with the Elementary and Secondary Education Act. Since mental health is strongly connected to academic achievement, the state’s definition of academic progress should include indicators of children screened and connected to mental health services.

c) Insure that all pediatric and family medical providers are knowledgeable about tools for Early Periodic Screening, Diagnostic and Testing (EPSDT)⁴⁶ and are trained to identify, through Medicaid EPSDT, including critical developmental screens, those children who are experiencing, or at risk of, mental health problems, including prenatal and perinatal risk factors, exposure to adverse events such as trauma or family disruption, illness or injury in early childhood and prepared to facilitate referral of such children for special education evaluation.

d) Increase provider awareness of the state’s Behavioral Health Partnership in order to maximize screenings and referrals to mental health providers.

The negative outcomes associated with mental health problems in children and adults are well-documented. The challenge is to ensure that educational and social service systems work together to maximize the impact of existing resources through close collaboration and cooperation. School records provide important insights into the needs of children as they emerge in the context of public schools. Without prompt and concerted efforts to respond to the risks that threaten the learning outcomes and mental health, failures will continue to disrupt and ultimately deny successful futures for generations of children and families in urban communities.

Endnotes

- 1 Connecticut Voices for Children. (2006). Building a community-based children's mental health system. New Haven, CT.
- 2 Gilliam, W. (2005). Prekindergarteners left behind: Expulsion rates in state prekindergarten systems, New York: The Foundation for Child Development.
- 3 Bradley, R., Henderson, K., & Monfore, D.A. (2004). A national perspective on children with emotional disorders. *Behavioral Disorders*, 29(3), 211.
- 4 Vannest, K.J., Temple-Harvey, K. K. & Mason, B.A. (2009). Adequate yearly progress for students with emotional and behavioral disorders through research-based practice. *Preventing School Failure*, 53(2), 73.
- 5 Substance Abuse and Mental Health Services Administration (2010). U.S. Department of Health and Human Services, Mental Health, United States, 2008.
- 6 Rive, A., Coiro, M. J., Broitman, M., Colantuoni, E., Hurley, K., Brandeen-Roche, K., & Miranda, J. (2009). Mental health of children of low-income depressed mothers: Influences of parenting, family environment and rates. *Psychiatric Services*, 60(3).
- 7 Black, M., Papas, M., Hussey, J., Hunter, W., Dubowitz, H., Kotch, J., English, D., Schneider, M. (2002). Behavior and development of preschool children born to adolescent mothers: Risk and 3-generation households. *Pediatrics*. 109, 573-580.
- 8 M. Goldschmidt, L., Willford, J., Leech, S., Larkby, C., & Day, N. (2009). Body size and intelligence in 6-year-olds: Are offspring of teenage mothers at risk? *Maternal Child Health Journal*, 13(6), 847.
- 9 Lipman, E., Georgiades, K., & Boyle, M. (2011). Young adult outcomes of children born to teen mothers: Effects of being born during their teen or later years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 50(3).
- 10 Smith, J. & Smith, G. (2010). Long-term economic costs of psychological problems during childhood. *Social Science & Medicine*, 71, 110-115
- 11 Schilling, E.A., Aseltine, R. J., & Gore, S. (2007). BMC Public Health. Retrieved from the Web at <http://www.biomedcentral.com/1471-2458/7/30>.
- 12 Ford, J., Chapman, J., Hawke, J., & Albert, D. (2007). Trauma among youth in the juvenile justice system: Critical issues and new directions. *National Center for Mental Health and Juvenile Justice*, 1-8.
- 13 Abram, K., Teplin, Charles, D., Longworth, S., McClelland G., & Dulcan, M. (2004). Posttraumatic stress disorder and trauma in youth in juvenile detention. *Archives of General Psychiatry*, 61(4), 403-410.
- 14 Connecticut State Department of Education Division of Assessment and Accountability (2007). Kindergarten 2006-07. Data Bulletin. Retrieved from the Web on May 28, 2012 at http://sdeportal.ct.gov/Cedar/Files/Pdf/Reports/db_kindergarten_11_07.pdf.
- 15 Bada, H.S., et al. (2011). Preadolescent behavior problems after prenatal cocaine exposure: Relationship between teacher and caretaker ratings (Maternal Lifestyle Study). *Neurotoxicology & Teratology*, 33(1), 78.
- 16 Brown, R., & Longoria, T. (2010). Multiple risk factors for lead poisoning in Hispanic sub-populations: A review. *Journal of Immigrant & Minority Health*, 12(5), 715.
- 17 Wright, J. P., et al. (2008). Association of prenatal and childhood blood lead concentrations with criminal arrests in early adulthood. *PLoS Medicine*, 5, 101.
- 18 Midence, K., McManus, C., Fuggle, P., & Davies, S. (1996). Psychological development and family functioning in a group of British children with sickle cell disease. *British Journal of Clinical Psychology*, 35(3), 439.
- 19 Miura, H., Fujiki, M., Shibata, A., & Ishikawa, K. (2005). Influence of history of head trauma and epilepsy on delinquents in a juvenile classification home. *Psychiatry & Clinical Neurosciences*, 59(6), 661.
- 20 Weil, et al., (1999). The relationship between psychosocial factors and asthma morbidity in inner city children with asthma. *Pediatrics*, 104(6), 1274.
- 21 Grant, R., & Brito, A. (2010). Chronic illness and school performance: A literature review focusing on asthma and children's mental health conditions. *Children's Health Fund Monograph*. Retrieved from the Web on May 28, 2012 at <http://www.childrenshealthfund.org/sites/default/files/chronic-illness-and-school-performance.pdf>.
- 22 Prinart, M. & Shu, Y. (2011). Anxiety in children and adolescents with chronic physical illnesses: A meta-analysis. *Acta Paediatrica*, 100(8), 1069.
- 23 Hysing, M., Elgen, I., Gilberg, C., & Lundervold, A.J. (2009). Emotional and behavioural problems in subgroups of children with chronic illness: Results from a large-scale population study. *Child: Care, Health & Development*, 35(4), 537.
- 24 Schilling, E. A., Aseltine, Jr., R. H., & Gores, S. (2007). Adverse childhood experiences and mental health in young adults: A longitudinal survey. *BMC Public health*, 7:30 doi: 10, 1186/1471.
- 25 Benner G. J.; Allor, J. H.; Mooney, P. (2008). An investigation of the academic processing speed of students with emotional and behavioral disorders served in public school settings. *Education & Treatment of Children*, 31(3), 307.
- 26 Lopes, J. (2005). Intervention with students with learning, emotional and behavioral disorders: Why do we take so long to do it? *Education and Treatment of Children*, 28(4), 345.
- 27 Redmond, S. M. (2011). Peer victimization among students with specific language impairment, Attention-Deficit/Hyperactivity Disorder, and typical development. *Language, Speech & Hearing Services in Schools*, 42(4), 520.
- 28 Menting, B., van Lier, P.A.C., Koot, H. M. (2011). Language skills, peer rejection, and the development of externalizing behavior from kindergarten to fourth grade. *Journal of Child Psychology & Psychiatry*, 52 (1), 72-79.
- 29 Raffaele Mendez, L. M.; Knoff, H. M., & Ferron, J. M. (2002). School demographic variables and out-of-school suspension rates: A quantitative and qualitative analysis of a large, ethnically diverse school district. *Psychology in the Schools*; 39(3), 259.
- 30 Atdjian, S., & Vega, W. A. (2005). Disparities in mental health treatment in U.S. racial and ethnic minority groups: Implications for psychiatrists. *Psychiatric Services*, 56, 1600.
- 31 Guzman, M. P. et al. (2011). Mental health matters in elementary school: First-grade screening predicts fourth grade achievement test scores.
- 32 Petrenko, C. L. M., et al. (2011). Do youth in out-of-home care receive recommended mental health and educational services following screening evaluations? *Children and Youth Services Review*, 33(1), 1911.
- 33 Center on the Social and Emotional Foundations for Early Learning (CSEFEL). Vanderbilt University. Retrieved from the Web on October 15, 2011 at http://csefel.vanderbilt.edu/resources/what_works.html.
- 34 Furniss, T., Beyer, T., & Muller, J. M. (2009). Impact of life events on child mental health before school entry at age six. *European Child & Adolescent Psychiatry*, 18(12), 717.
- 35 Valdez, C., Lambert, S., & Jalongo, N. (2011). Identifying patterns of early risk for mental health and academic problems in adolescence: A longitudinal study of urban youth. *Child Psychiatry & Human Development*, 42(5), 521
- 36 Gerstein, E., et al. (2011). Developmental risk and young children's regulatory strategies: Predicting behavior problems at age 5. *Journal of Abnormal Child Psychology*, 39(3), 351.
- 37 Thompson, R., et al. (2011). Early adolescent risk behavior outcomes of childhood externalizing behavioral trajectories. *Journal of Early Adolescence*, 31(2), 234.
- 38 Perfect, M. M. & Morris, R. J. (2011). Delivering school-based mental health services by school psychologists: Education, training and ethical issues. *Psychology in the Schools*, 48(10), 1049.
- 39 Loades, M. E.; Mastroiannopoulou, K. (2010). Teachers' recognition of children's mental health problems. *Child & Adolescent Mental Health*, 15(3), 150.
- 40 Williams, J. H., Horvath, V. e., Hsi-sheng, W.; Van Dorn, r. A., & Jonson-Reid, M. (2007). Teachers' perspectives of children's mental health service needs in urban elementary schools. *Children & Schools*, 29(2), 95.
- 41 Stephan, S. H.; Weist, M., Kataoka, S.; Adelsheim, S., & Mills, C. (2007). Transformation of children's mental health services: The role of school mental health. *Psychiatric Services*, 58, 1330.
- 42 Masia-Warner, C.; Nangle, D. W.; & Hansen, D. J. (2006). Bringing evidence-based child mental health services to the schools: General issues and specific populations. *Education & Treatment of Children*, 29(2).
- 43 National Center for Mental Health Checkups Columbia University TeenScreen (2010). Rosie D. and mental health screening: Keys to success for providing mental health screening at the well child visit. Brief for Policy makers. Retrieved from the Web on May 28, 2012 at <http://www.teenscreen.org/images/stories/RosieDBrief-Policymakers.pdf>.
- 44 National Academy for State Health Policy, ABCD Resource Center. Retrieved from the Web on January 12, 2012 at <http://www.nashp.org/abcd-welcome>.
- 45 Center on the Social and Emotional Foundations for Early Learning (CSEFEL). Vanderbilt University. Retrieved from the Web on October 15, 2011 at http://csefel.vanderbilt.edu/resources/what_works.html.
- 46 Health Resources and Service Administration (HRSA) Maternal and Child Health . Mental health and EPSDT: Screening. Retrieved from the Web on 10/2/12 at <http://mchb.hrsa.gov/epsdt/mentalhealth/screening.html>.

Center for Children's Advocacy
65 Elizabeth Street, Hartford, CT 06105
860-570-5327
www.kidscounsel.org