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Validation of the Preschool and Early Childhood Functional Assessment Scale (PECFAS)

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Abstract

Efforts to determine the prevalence of serious emotional disturbance in preschool-aged children have been hampered by the lack of a validated measure. The Preschool and Early Childhood Functional Assessment Scale (PECFAS) is a multi-dimensional measure that assesses the psychosocial functioning of children aged 3–7 years. The concurrent validity and reliability of the PECFAS were assessed in a sample of 30 preschool-aged children in a large Head Start program in Ventura, California. PECFAS ratings based on in-depth interviews were significantly related to parental ratings that the children had mental health problems, psychiatric diagnoses, teacher ratings of the child's need for mental health evaluations, teacher ratings of behavior problems on a standardized screening inventory (DIAL-R), and actual referrals for mental health evaluations. Interrater reliability for the total PECFAS score was high ($r = .90$) as was internal consistency of the five subscales ($\alpha = .86$). Using the PECFAS scores as a standard, the weighted prevalence of serious emotional disturbance in this West Coast Head Start program was 17%, at the lower end of the current estimated rate of SED for older children in low income samples (18–26%).

Keywords

psychosocial functioning; impairment; preschool-age children; multidimensional measures; Head Start

Epidemiological studies report rates of childhood psychosocial problems which vary from 3% to 30% depending on definition, socioeconomic status, measures, and ages of the children in question (National Institute of Mental Health, 1990; Schwartz-Gould, Wunsch-Hitzig, & Dohrenwend, 1981; Simonian, 1991). The Center for Mental Health Services (CMHS) has recently proposed the definition that children with serious emotional disturbance (SED) are those between the ages of birth to 18 who have had a diagnosable

mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria that results in functional impairment that substantially interferes with or limits the child's role or functioning in family, school, or community activities (Federal Register, 1993). Based on this definition, a panel of experts convened by CMHS reviewed all published studies and concluded that the prevalence of SED in children aged 9 to 17 years in the general population is in the range of 9–13% (Friedman, Katz-Leavy, Manderscheid, & Sondheimer, 1996).

The rate of SED appears to vary greatly by socioeconomic group. One of the best estimates of the prevalence of SED in low income children is based on an epidemiological study in Puerto Rico (Bird, Yager, Staghezza, & Canino, 1990), that reported a prevalence of 18% for children who had a psychiatric diagnosis and a score of 60 or lower on the Children's Global Assessment Scale (CGAS). Based on this and other studies (Costello et al., 1996; Zahner, Pawelkiewicz, DeFrancesco, & Adnopolz, 1992), the CMHS report estimated that the prevalence of SED in poor children is twice the rate found in the general population and therefore in the range of 18–26%.

In the search for measurements of psychiatric impairment to bring consistency to mental health research, the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1989; 1994) was developed as a measure of degree of impairment in children aged 6–16 and has achieved increasing use in mental health research (Hodges, Doucette-Gates, & Liao, 1999; Hodges & Gust, 1995; Hodges & Wong, 1996, 1997; Hodges, Wong, & Latessa, 1998). In contrast to the Children's Global Assessment Scale (CGAS), another commonly used functional assessment scale (Bird, Canino, Rubio-Stipec, & Ribera, 1987; Green, Shirk, Hanze, & Wanstrath, 1994), the CAFAS comprises a set of written items describing behavior that are organized into domains of functioning. Within each domain, behaviors are grouped into levels of impairment: severe, moderate, mild, and no or minimal impairment. For each scale, the rater determines the level of impairment that best describes the youth's most severe level of dysfunction during the time specified by the user (e.g., last month, last 3 months). The scores assigned to each of the categories are as follows: 30 for severe, 20 for moderate, 10 for mild, and 0 for minimal or no impairment.

The 1989 version of the CAFAS, consisted of five scales for the youth and two for the caregiver. The youth scales are as follows: Role Performance (i.e., how effectively the youth fulfills societal roles in school, home, and community), Behavior toward Self and Others (i.e., appropriateness of the youth's daily behavior), Moods/Emotions (i.e., modulation of the youth's emotional life), Thinking (i.e., ability of the youth to use rational thought processes), and Substance Use (i.e., youth's substance use and the extent to which it is inappropriate or disruptive). The total score refers to the sum of the five scales assessing the youth, with a range from 0 to 150. A higher score reflects greater impairment. The current version of the CAFAS (Hodges, 1994) has eight youth scales (School Role Performance, Home Role Performance, Community Role Performance, Behavior toward Others, Mood, Self-Harmful Behavior, Substance Use, and Thinking) and includes a list of strengths and/or goals appropriate to each scale (Hodges, 1997; Hodges, 1998).

The assessment of functional problems in children younger than school-age is less well defined than it has been in older children, although preliminary research suggests that the prevalence of psychosocial problems in preschool-aged children may be as high as in older children (Lavigne et al., 1993). Lavigne and his colleagues reported a prevalence rate of 13% positive screens on a behavior problem questionnaire with preschool-aged children, virtually identical to the rate found with school-aged children (14%) from the same community using the same instrument (Costello, Edelbrock, & Costello, 1988).

In recent years, the potentially greater impact of earlier interventions has led to a federal mandate to include screening for psychological and developmental problems in all Medicaid-covered well-child pediatric visits and for increased federal funding for agencies that serve preschool-aged children (Knitzer, 1993). Although there are many developmental, cognitive, and psychosocial screening instruments targeted at this age range (Achenbach, 1992; Behar, 1977; First & Palfrey, 1994), the lack of a validated scale for rating the overall psychosocial functioning of younger children has precluded a precise estimate of the prevalence of serious emotional disturbances in preschool-aged children (Friedman et al., 1996). Hodges (1994a) has recently created a revised measure, the Preschool and Early Childhood Functional Assessment Scale (PECFAS), that permits the assessment of children aged three through seven years. The current study presents preliminary validity data for the PECFAS.

Validating a psychosocial assessment instrument for preschool-aged children presents a number of challenges: younger children have a shorter developmental history, a narrower range of daily expectations, fewer areas of experiences outside the home, and more limited verbal skills compared to school-aged children (Little, Jellinek, & Murphy, 1994). Since there are no gold standard measures that rate psychosocial functioning for preschool-aged children, the current study employs multiple informants and multiple measures to establish the concurrent validity of the new instrument (Lavigne et al., 1993; Pilkonis, Heape, & Ruddy, 1991). We assessed the validity of the PECFAS as a measure of overall functioning for preschool-aged children by examining its relationship to ratings of parents and preschool teachers on different measures. Then, using PECFAS scores as a benchmark, we estimated the prevalence of SED using a large sample of preschool-aged children from low-income families.

METHOD

Subjects

The study took place in Ventura, CA and was conducted in collaboration with Child Development Resources of Ventura County, California Head Start program (CDR), which serves a large population of parents and children from predominantly low-income, Hispanic backgrounds. As an addition to a required developmental screening during the month of September 1994, all the parents of children who were enrolled in CDR were asked to complete a brief checklist assessing the child's behavioral and emotional problems.

The study was conducted in the seventeen centers and 55 classrooms of CDR which had a combined enrollment of 952 children during September of 1994. Two hundred thirty-three (24%) parents were not approached for a variety of reasons, the most common of which was that the parents did not attend the developmental screening at the scheduled time when the parent advocates were present. Fifty-one of the 717 approached parents (7%) declined to fill out a screening checklist, leaving a total questionnaire sample of 663.

Procedure

While Head Start teachers conducted developmental screening with the children, parent advocates asked parents to fill out a number of registration forms as well as a brief checklist (the Pediatric Symptom Checklist; Jellinek et al., 1986) and to give consent for a possible later interview. Participation was voluntary. Parents who indicated consent were scheduled for semi-structured interviews at CDR by the senior author or Head Start supervisors. The research design called for interviews with the parents of 40 children who scored above the cutoff on the PSC and the parents of 20 children who scored below the cutoff. Due to logistical problems, only thirty interviews could be scheduled. Interviewers, Head Start

supervisors, and teaching staff were blind to the initial screening scores on the PSC. All procedures and consent forms were approved by the Massachusetts General Hospital Subcommittee on Human Studies.

Measures

Demographics—Demographic information including child gender, age, and racial/ethnic background were assessed from items on the PSC form. Insurance status was determined through the Head Start enrollment database.

The Pediatric Symptom Checklist—The Pediatric Symptom Checklist (PSC) is a 35 item questionnaire which has been used most often with school aged children (Jellinek, Murphy, & Burns, 1986; Jellinek et al., 1998). Several studies have also established the validity of the PSC with preschool aged children (Little et al., 1994; Pagano et al., 1995). For children aged three through five years, a slightly different scoring procedure has been used: the four PSC items which relate to school functioning are dropped and the total score for the instrument is based on the 31 non school related items. A cutoff score of 24 or higher is considered to indicate the presence of psychosocial problems. This method of scoring the PSC was followed in the current study. Four new items had been pilot tested on the PSC form used in our study, but since these new items did not markedly add to the accuracy of the original instrument, they were dropped from all subsequent analyses in the current study. The PSC form in our study also included an additional item which asked whether the parent thought the child had a problem with behavior or emotions for which the child needed help. Forms were available in English and Spanish.

Preschool and Early Childhood Functional Assessment Scale (PECFAS)—The PECFAS is an interviewer generated rating which is based on five sub-scales which assess the child and two additional scales which can be used to assess the child's environment (Hodges, 1994). Although PECFAS ratings can be made from any source of data about the child (like clinical interviews) the author of the PECFAS had also developed a semi-structured interview for parents about the child (Hodges, 1994b). This interview was administered in our study. Both Spanish and English versions of the interview were available and parents were interviewed in the language of their choice.

The child's functioning is rated in seven areas: Role Performance (i.e., how effectively the child fulfills societally defined roles in home, in preschool/day care settings, and in the community); Thinking/Communication (i.e., the ability of the child to use rational thought processes); Behavior Toward Others/Self (i.e., appropriateness of child's daily behavior); Moods/Emotions (i.e., modulation of the child's emotional life); and Self-Harming Behavior (i.e., extent to which the child can cope without resorting to self-harming behavior or verbalizations).

For each of the subscales, multiple items of severe, moderate, mild, and no problems are provided so that the rater can categorize the degree of impairment. For each subscale, the degree of impairment is assigned a score of 30, 20, 10, or zero, based on the specific items endorsed. The five area scores which assess the child's functioning are summed to provide an overall functioning score ranging from 0–150. Two additional scales are available to assess the caregiver but do not affect the child's overall score: Basic Needs (i.e., caregiver's ability to provide for basic needs of the child including food, shelter, clothing, medical care, and safety) and Family/Social Support (i.e., the degree to which the quality of the relationships and the guidance and nurturance provided within the family meet the child's developmental needs).

For older children a total CAFAS score of 40 has been considered indicative of severe emotional disturbance based on a five-scale sum total score using the 1989 version of the CAFAS (Friedman et al., 1996). A total score of 40 on the PECFAS was tentatively used to indicate SED for younger children.

PECFAS ratings were given by the interviewers immediately after the interviews. These scores were checked by experienced research assistants who read through the interviewers' notes and made independent ratings. Although these ratings usually agreed with the interviewers' original PECFAS scores, the few instances of disagreement that were noted were discussed until a consensus was arrived at. These consensus PECFAS scores were reported in the analyses that follow. In order to calculate inter-rater reliability for this study, another research assistant reviewed the written interview notes and made an independent rating. The PECFAS scores of Rater 2 were contrasted with the scores established by Rater 1/Consensus.

Parent-Rating of Child Psychosocial Problems—The first cross validator of the PECFAS ratings was the parents' responses on the PSC screening questionnaire. In addition to the recommended cutoff score of 24 for the 31 item form, parents' answers to the single question, "Does your child have any emotional or behavioral problem for which she/he needs help?" were used as another cross validator of the PECFAS ratings. Similar single questions asking parents whether their children had a problem for which they needed help have been used in studies of low-income children (Bird, Gould, Rubio-Stipec, Staghezza, & Canino, 1991; Zahner et al., 1992) and in the authors' studies of children in the same California county (Murphy et al., 1996; Pagano et al., 1995). Both ways of assessing parental concern over child psychosocial functioning were used to validate the PECFAS.

Psychiatric Diagnoses—Data on Attention Deficit/Hyperactivity Disorder (ADHD) and Oppositional Defiant Disorder (ODD) were collected for all interview subjects using these modules from the Schedule for Affective Disorders and Schizophrenia in School-Age Children—Parent report (K-SADS-P), a structured psychiatric interview that assesses DSM-IV diagnoses. Only these two disorders were assessed because in the authors' previous work with low income children (Murphy, Reede, Jellinek, & Bishop, 1992) and in Lavigne's study of preschoolers (Lavigne et al., 1993), they accounted for more than two-thirds of all the clinically significant diagnoses given to preschoolers.

Of the three most widely used structured psychiatric interviews available at the time of the study, none had been validated for use with preschool-aged children. The K-SADS-P was chosen because it involves a simple rendering of DSM-IV symptoms and can be administered by lay-interviewers. Even though the K-SADS-P interview has not been validated for use with children younger than six years, both of the diagnoses are valid for children in this age range.

Teacher-Rating of Child Psychosocial Problems—As part of our study, the senior author met with all of the Head Start teachers during the middle of the school year and asked them to review their class rosters and to list any children whom they felt were in need of evaluation for mental health services. The Head Start teacher ratings of children with psychological problems who needed further evaluation were compared to the PECFAS ratings.

The Developmental Indicators for Assessment of Learning-Revised (DIAL-R)—The Developmental Indicators for Assessment of Learning-Revised (DIAL-R) is a well established and validated educational screen for children between the ages of 2 and 6 years (Barnett, Faust, & Sarmir, 1988; Glascoe, 1991; Mardell-Czudnowski & Goldenberg, 1984).

Three scales assess potential problems in the areas of motor skills, concepts, and language skills, and a fourth scale summarizes the teacher's observations of behavioral problems during testing and the possible need for further social/affective assessment. The entire DIAL-R is completed in 20–30 minutes and requires minimal training for administration and scoring. For each of the four subscales, cut-off scores indicate whether the child is functioning adequately or has a potential problem in that area (Mardell-Czudnowski & Goldenberg, 1990). Only the social/affective observations are reported here in comparison to PECFAS scores.

Mental Health Referrals—A third indicator of the PECFAS's validity was actual referral to a mental health clinician over the course of the school year. CDR had a full time licensed social worker who was available for all mental health referrals. Referrals to the mental health clinician for evaluations and/or therapy were recorded by the CDR Head Start health service coordinator and these data were made available to the research team at the end of the year.

Data Analysis

In the current study, between-group comparisons on categorical variables were made with the chi square test. On the interval data, differences in means between the two groups were tested using analysis of variance (ANOVA). Statistical significance was defined as a two-tailed alpha of $p < .05$.

RESULTS

As a whole, 9% (59/663) of the sample had a PSC score of 24 or higher. Five hundred-fifty of the 663 parents (83%) indicated on the PSC form that they would be willing to be interviewed. As a result of the intended two-to-one over sampling of highly symptomatic children, 19 children with PSC scores of 24 or higher and 11 children with PSC scores of 23 or lower were interviewed. Forty-two parents had to be contacted to obtain 30 completed interviews (71%).

Demographic Factors and PECFAS Scores

As shown in Table 1, the questionnaire sample of 663 children was 51% (336/663) male with a mean age of 3.8 years (s.d. = .5). The majority of the children were 4 years old (73%), Hispanic (77%), and covered by Medicaid (77%). Compared to official program data on the 952 children enrolled on 10/01/94, the obtained sample of 663 children did not differ from the remainder of the Head Start population in terms of gender, age, ethnicity, primary language of parent, or type of insurance coverage.

The interview sample consisted of 20 boys and 10 girls. All 30 of the subjects were between 3–5 years of age, with a mean age of 3.8 years (s.d. = 1.4). Sixty-three percent (19/30) of the interview sample were from Hispanic backgrounds, 27% (8/30) were from Anglo backgrounds, 7% (2/30) were from Asian backgrounds, and one child (3%) was African-American. Seventy-three percent (22/30) of the interview sample were from minority backgrounds. Eighty-three percent (25/30) of the children were from families with Medicaid health insurance. The interview sample did not differ significantly from the full sample in terms of gender, age, ethnicity, or health insurance.

The mean PECFAS score for the interview sample was 26.0 (s.d. = 20.1) and 8 of the 30 children (27%) had a total score of 40 or higher on the PECFAS. Using a PECFAS score of 40 or higher as the cut off, 75% of the PSC positive screens (7% of the total questionnaire sample) were found to be true positive cases, and 11% of the PSC negative screens (10% of

the total questionnaire sample) were found to be false negative cases, yielding a weighted prevalence of serious emotional disturbance in this West Coast Head Start program of 17% just below the lower end of the current estimated rate of SED for older children in low income samples (18–26%).

Neither mean nor categorical PECFAS scores were significantly related to child gender, age, ethnicity, or insurance status. There was a non-significant trend for children from a minority background to have higher mean PECFAS scores (30.0, s.d. = 20.2 vs 15.0, s.d. = 16.0; $F = 3.6$, $df = 1$, $p < .10$).

Parent-Rating of Child Problem and PECFAS Scores

As shown in Table 2, 16% (108/663) of the questionnaire sample and 33% (10/30) of the interview sample of parents stated that they thought their child had a problem with behavior or emotions for which the child needed help. Children with a parent-rating of a psychosocial problem were significantly more likely to be PECFAS cases than children with no parent-rating of a problem (50% vs 15%; $\chi^2 = 4.2$, $df = 2$, $p < .05$; $SN = .85$, $SP = .50$). As would be expected, children with parent-rating of a psychosocial problem also had significantly higher mean PECFAS scores (mean = 38.0, s.d. = 16.0) than children with no parent-rating of a problem (mean = 20.0, s.d. = 15.0; $F = 6.2$, $df = 1$, $p < .01$).

Psychiatric Diagnoses and PECFAS Scores

Thirty percent (9/30) of the interview sample were classified as having Oppositional Defiant Disorder (ODD) and 17% (5/30) were classified as having Attentional Deficit Hyperactivity Disorder (ADHD). Forty-three percent (13/30) were classified as having either ODD, ADHD, or both. Children with ODD were significantly more likely to be PECFAS cases than children without ODD (56% vs 14%; $\chi^2 = 7.3$, $df = 2$, $p < .05$; $SN = .86$, $SP = .56$) and to have significantly higher PECFAS mean scores (mean = 42.2, s.d. = 20.2 vs mean = 19.0, s.d. = 15.0; $F = 11.3$, $df = 1$, $p < .01$). Children with ADHD were twice as likely to be cases on the PECFAS and to have higher mean PECFAS scores than children without ADHD, although these findings failed to reach statistical significance. Children with either ODD, ADHD, or both diagnoses were significantly more likely to be PECFAS cases than children without any diagnoses (75% vs 32%; $\chi^2 = 4.5$, $df = 2$, $p < .05$; $SN = .88$, $SP = .46$) and to have significantly higher PECFAS mean scores (mean = 38.5, s.d. = 22.1 vs mean = 16.5, s.d. = 12.2; $F = 12.2$, $df = 1$, $p < .01$).

Teacher-Rating of Child Problem and PECFAS Scores

Of the 663 children in the questionnaire sample, 653 children were still enrolled when the teachers rated their class lists for psychosocial problems. Ten percent of these children (62/653) were rated as needing mental health evaluations. In the interview sample, 20% (6/30) of the children had teacher-rating of a psychosocial problem. Children with a teacher-rating of a psychosocial problem were significantly more likely to be PECFAS cases than children with no teacher-ratings of a problem (67% vs 17%; $\chi^2 = 4.1$, $df = 2$, $p < .05$; $SN = .83$, $SP = .67$). Children with a teacher-rating of a psychosocial problem had significantly higher mean PECFAS scores (mean = 41.7, s.d. = 23.1) than children with no teacher-rating of a problem (mean = 22.1, s.d. = 13.4; $F = 6.9$, $df = 1$, $p < .01$).

DIAL-R and PECFAS Scores

Six percent (33/579) of the total sample and 33% (10/30) of the interview sample were rated by Head Start teachers as having potential problems in social/emotional development on the DIAL-R at the beginning of the school year. Children who were rated with potential problems in social/emotional development were significantly more likely to be PECFAS

cases than children who were not rated with potential problems (56% vs 14%; $\chi^2 = 5.5$, $df = 2$, $p < .05$; $SN = .86$, $SP = .55$). Children with potential social/emotional problems had significantly higher mean PECFAS scores (mean = 38.9, $s.d. = 20.4$) than children without potential problems (mean = 20.5, $s.d. = 16.5$; $F = 4.4$, $df = 1$, $p < .05$).

Referral and PECFAS scores

Four percent (25/663) of the total sample and 13% (4/30) of the interview sample were referred to the licensed social worker for further evaluation and/or treatment during the school year. Children who were referred for mental health evaluations had significantly higher mean PECFAS scores (mean = 45.0, $s.d. = 26.4$) than non-referred children (mean = 23.1, $s.d. = 15.4$; $F = 8.4$, $df = 1$, $p < .05$).

Inter-Rater and Internal Consistency Reliability

Blind to the original PECFAS score by Rater 1/Consensus, a master's level psychologist independently gave a PECFAS rating to each case based on the structured interview protocol and notes. The exact PECFAS ratings of the two raters showed a correlation of $r = .89$ ($p < .0001$). PECFAS score agreement was exact for 29 cases and within 10 points on the remaining case (e.g. PECFAS ratings of 30 vs 40). Alpha reliability calculated for the total PECFAS score based on the five subscales indicated high internal consistency ($\alpha = .86$).

DISCUSSION

Our study suggests that the PECFAS provides a valid and reliable measure of overall psychosocial functioning for three to five year old children that will prove to be very useful to both researchers and clinicians. Indicators of the validity of the child's impairment score on the PECFAS were provided by (a) the presence of a psychosocial problem or (b) psychiatric diagnosis based on parent-report, (c) teacher-ratings of the child's need for psychological evaluation, (d) teacher-ratings of the presence of a potential social/emotional problem during developmental testing, and (e) referral to the mental health clinician over the course of the school year. Interrater reliability and internal consistency for the PECFAS total score was excellent.

Using a PECFAS score of 40 or higher as the standard, 75% of the PSC positive screens (7% of the total sample) were found to be true positive cases, and 11 % of the PSC negative screens (10% of the total sample) were found to be false negative cases, yielding a weighted prevalence of serious emotional disturbance in this West Coast Head Start program of 17%, at the lower end of the current estimated rate of SED for older children in low income samples (18–26%).

There are a number of limitations that must be taken into account in interpreting the findings of the study. First of all, the interview sample was relatively small and thus susceptible to variation due to chance. Secondly, the sample may not have been representative due to loss of subjects in the sampling. Thirdly, the children studied were predominantly Hispanic from low-income areas, and the prevalence rate of SED may differ in other racial or ethnic groups from various income levels in other locations.

Nevertheless, the findings suggest that the PECFAS will be a valid and reliable scale for rating the overall psychosocial functioning of preschool-aged children. The PECFAS's focus on behavioral descriptions of impairment and its depiction of the young child's functioning across domains make it a useful organizing tool for treatment planning among staff and with parents as well as providing a way to prioritize which preschool-aged children and their families would most benefit from expanded services. This in turn would provide a way to

link level of care to level of need (Newman & Hodges, 1995), conduct program evaluation and planning (Pokorny, 1991), and analyze costs vs. benefits.

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Table 1

Background Factors and PECFAS Positive Rates

	Questionnaire Sample		Interview Sample		Mean
	Total	Total	PECFAS-	PECFAS+	
	663 (100)	30 (100)	22 (73)	8 (27)	26.0
Gender					
Male	336 (51)	20 (67)	15 (75)	5 (25)	23.5
Female	327 (49)	10 (33)	7 (70)	3 (30)	31.0
Age					
3 years	166 (25)	7 (23)	6 (86)	1 (14)	20.0
4 years	484 (73)	22 (73)	15 (68)	7 (32)	28.2
5 years	13 (2)	1 (3)	1 (100)	0 (0)	20.0
Race					
Minority	571 (86)	22 (73)	15 (68)	7 (32)	30.0 ^f
Non-Minority	92 (14)	8 (27)	7 (88)	1 (12)	15.0
Insurance					
Medicaid	459 (77)	25 (83)	17 (68)	8 (32)	28.4
No coverage	103 (17)	3 (10)	3 (100)	0 (0)	10.0
Private	36 (6)	2 (7)	2 (100)	0 (0)	20.0

^f p<.10.

Table 2

Associations Between PECFAS Positive Scores and Other Measures of Child Impairment

	Questionnaire Sample			Interview Sample			Mean
	Total	Total	PECFAS-	PECFAS-	PECFAS+		
	663 (100)	30 (100)	22 (73)	8 (27)	8 (27)	26.0	
PSC Case	No	19 (63)	17 (89)	2 (11)		17.0	
	Yes	59 (9)	11 (37)	5 (45)	6 (55)**	42.0***	
Parent Rating of Mental Health Problem	No	555 (84)	20 (67)	17 (85)	3 (15)	20.0	
	Yes	108 (16)	10 (33)	5 (50)*	5 (50)**	38.0**	
Psychiatric Diagnoses:							
ODD	No	—	21 (70)	18 (86)	3 (14)	19.0	
	Yes	—	9 (30)	4 (44)	5 (56)*	42.2**	
ADHD	No	—	25 (83)	19 (76)	6 (24)	24.4	
	Yes	—	5 (17)	3 (60)	2 (40)	34.4	
ODD and/or ADHD Disorder	No	—	17 (57)	15 (68)	7 (32)	16.5	
	Yes	—	13 (43)	2 (25)	6 (75)*	38.5**	
Teacher Rating:							
Child Needs Evaluation	No	591 (90)	24 (80)	20 (83)	4 (17)	22.1	
	Yes	62 (10)	6 (20)	2 (33)	4 (67)*	41.7*	
DIAL-R Social/Emotional Problem Identified	No	546 (94)	21 (70)	18 (86)	3 (14)	20.5	
	Yes	33 (6)	9 (30)	4 (44)	5 (56)*	38.9*	
Referral for Mental Health	No	638 (96)	26 (87)	20 (77)	6 (23)	23.1	
	Yes	25 (4)	4 (13)	2 (50)	2 (50)	45.0*	

* p < .05;
 ** p < .01;
 *** p < .001.