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Impact of Children's Identified Disability Status on Parent and Teacher Behavior Ratings

Ethan Schwehr · Joel O. Bocanegra · Kyongboon Kwon · Susan M. Sheridan

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Abstract This study was an examination of the possible influence of a child's pre-identified disability on parent and teacher behavior ratings and whether a child's disability status affected parent ratings, when controlling for parenting stress. The sample included 206 kindergarten through third grade students and their teachers and parents from a Midwestern town and surrounding area. The results indicated that a child's identified disability had a greater impact on parent ratings than teacher ratings of a child's behavior. Compared to parents of a child without a disability, parents of a child with an identified disability reported significantly higher levels of externalizing problems and significantly lower levels of adaptive and social skills. In contrast, the negative effect of a child's identified disability on teacher ratings was evident only in adaptive and social skills. Additionally, after controlling for parenting stress, a child's identified disability accounted for a small but significant proportion of the variance in parent ratings of child externalizing problems and social skills. The findings may inform school psychology practice regarding behavior assessment and case conceptualization.

Keywords Behavior ratings · Child disability status · Parenting stress · Psychological label

School psychologists' abilities to efficiently gather reliable and interpretable information from different informants and settings are invaluable to the proper service provision of students and families (NASP 2009). Among a number of available assessment methods, behavior rating scales serve as a popular tool for school psychologists. The popularity of their use is likely due to their ease of administration and strong psychometric properties, which allow for the gathering of information from multiple reporters and settings in an efficient manner (Hosp et al. 2003; Merrell 2000).

One documented challenge with the use of behavior rating scales lies in cross-informant discrepancies (i.e., the difference between informants' ratings of a target behavior). A seminal meta-analysis study documented that cross-informant correlations ranged from 0.20 to 0.73 between parents, teachers, and children (Achenbach et al. 1987). Whereas parents and teachers often serve as primary sources of information in schools, the meta-analysis results indicated that the correlation between parent and teacher ratings of target behavior is 0.27, which is small in magnitude. More recent studies have consistently supported that the correlations between parent and teacher ratings of children's behaviors are, albeit statistically significant, small in magnitude (Berg-Nielsen et al. 2003; Foley et al. 2004; Grills and Ollendick 2003). This finding indicates that when teachers and parents rate the same target behavior, there is likely to be a considerable amount of difference between their ratings of that behavior.

Given the prevalence of cross-informant discrepancies in behavior ratings, it is an important task for practitioners to understand factors that affect behavior ratings. Numerous researchers have found that subjects' and raters' characteristics, such as gender and ethnicity, have an impact on behavior ratings (Bussing et al. 2008; Dumenci et al. 2011; Hughes and Gullone 2010). The purpose of this study was to examine the premise that a child's pre-identified disability status might affect parent and teacher behavior ratings. A significant percentage of school-age children have comorbid mental health conditions (Angold et al. 1999; Drabick et al. 2010), and as mandated by law, children with disabilities are periodically

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reevaluated in schools. It has been shown that individuals' perceptions are affected by their knowledge of a diagnosed mental disability of others (Foster and Ysseldyke 1976; Ohan et al. 2011). However, researchers have not examined if a child's pre-identified disability status might systematically affect informants' ratings of child's behavioral functioning within a naturalistic environment. Further, most previous studies have used videos (Foster and Ysseldyke 1976) and other analogous methodologies such as vignettes (Ohan et al. 2008, 2011) to explore the impact of labels on teachers' ratings. This study contributes to the literature by examining the influence of labels on behavior ratings within a naturalistic environment (i.e., school and home).

Contributing Factors to Behavior Ratings

It is important to consider situational specificity of behavior when interpreting behavior ratings. Behaviors are, to some extent, context-dependent. Given the different expectations and demands across contexts (e.g., school, home), children may manifest different behaviors depending on the environment where the behaviors are assessed. Situational specificity of behavior, in turn, partly explains how behavior ratings differ across informants.

Researchers have also documented that raters' mental health status may affect their behavior ratings (De Los Reyes and Kazdin 2005; Hughes and Gullone 2010; Youngstrom et al. 2000). Specifically, when caregivers experience psychological distress such as depression and parenting stress, they tend to report their children's functioning (e.g., externalizing problems, internalizing problems) more negatively than children do about their own functioning (Hughes and Gullone 2010; Youngstrom et al. 2000). It is possible that an informant's psychological distress leads to elevated ratings of target behavioral functioning due to cognitive distortions such as psychological projections, mood-congruent perceptions, recall, appraisal, or lower tolerance for child's behaviors (Chilcoat and Breslau 1997; Hughes and Gullone 2010). For example, a mother who has increased stress might have a lower tolerance for her child's misbehavior and/or might focus more on the child's negative comportment, leading her to overreport the child's misbehavior.

In fact, Chilcoat and Breslau (1997) conducted a study where they examined mothers' mental health history (i.e., major depression, anxiety disorders, and substance abuse) and its correlation to mothers' and teachers' reports of students' behavioral functioning. This study included approximately 801 6-year-old students. The authors found that mothers with mental health difficulties reported significantly more elevated levels of both internalizing and externalizing behaviors in their children when compared to mothers without mental health issues. In contrast, teachers, in general, did not report a significant difference between children whose mothers had mental health issues and their counterparts. Hence, Chilcoat and Breslau (1997) concluded that the mothers with mental health issues tended to overreport behavioral problems of their children.

Child's Identified Disability and Behavior Ratings

It has long been noted that a student's pre-identified disability label might impact informants' perceptions of the student's behavioral functioning (Foster and Ysseldyke 1976; Jacobs 1978; Ohan et al. 2011). In a historical study, Foster and Ysseldyke (1976) investigated the effects of psychological labels on teachers' behavioral reports of students. One hundred special education and elementary teachers took part in this study. The teachers completed a referral form for a hypothetical child labeled[1] as: (a) intellectually delayed, (b) learning disabled, (c) emotionally disturbed, or (d) normal. The label given to the hypothetical child was chosen at random. Each teacher then observed a video of a normal child, completed a referral form for that child, and was told the child had one of the four aforementioned labels. The authors found that children who had received a deviant label (e.g., a label other than normal) were rated as being significantly more negative than those labeled as normal.

In a more recent study, Ohan and colleagues (2011) examined the impact of attention-deficit/hyperactivity disorder (ADHD) labels on 34 Canadian elementary school teachers' and 32 Canadian students' perceptions of children's impairment. Participants read vignettes that described a child with ADHD which varied on whether the label "ADHD" was used or not. Subsequently, participants rated these children on their social/behavioral functioning. The authors found that participants tended to identify students with the ADHD label as manifesting more serious social/behavioral difficulties than the students who did not have the ADHD label in the vignettes.

It might be that when parents and teachers rate a child's behavior, knowledge of the child's disability colors their perceptions such that they rate a child's behavior more negatively than what would be expected. For example, it is possible that behaviors are perceived as more severe when displayed by children with an identified disability as compared to those without a disability. Alternatively, difficult behaviors displayed by children might create psychological distress for parents and teachers, which in turn might negatively impact their perceptions of the children's behavior. It is further possible that the extent to which a child's identified disability affects one's perceptions might differ across informants (e.g., parents versus teachers).

[1] The terminology is outdated but reflects what was used at the time of study.

Purpose of the Present Study

The first goal of our study was to examine how a child's identified disability is related to parent and teacher ratings of the child's maladaptive (i.e., externalizing problems, internalizing problems) and adaptive behaviors (i.e., adaptive skills and social skills). Specifically, the focus of this study was to examine whether an identified disability, in general, might affect parent and teacher behavior ratings. In other words, we were primarily interested in understanding how a psychological "label" attached to a child might affect parent and teacher ratings of the child's functioning. Accordingly, we defined disability status as a child having a clinical diagnosis and/or special education classification and did not focus on a specific type of disability. In doing so, we compared the effect of an identified disability status on behavior ratings between parents and teachers. If parents and teachers consistently rate the behaviors more negatively for children with a disability than for those without a disability, the ratings might generally reflect poorer functioning of children with a disability than those without one. However, if an identified disability status does not equally affect parent and teacher ratings, it may indicate that an identified disability label likely plays a role in informants' behavior ratings.

Secondly, given that caregivers' psychological distress has been shown to affect their ratings of children's behavior (De Los Reyes and Kazdin 2005; Hughes and Gullone 2010; Youngstrom et al. 2000), our second goal was to examine the extent to which a child's identified disability accounts for a unique portion of the variance in parent ratings of child behavior, above and beyond parental stress after controlling for child gender and ethnicity. Gender and ethnicity were controlled for due to researchers suggesting that gender and ethnicity can have an impact on informants' behavioral ratings.

Method

Participants

The participants were 206 kindergarten through third grade students (74 males, 26 % females) and their parents and general education teachers from a Midwestern city and surrounding communities. The average age of the students was 6.5 years (SD=1.1 years); 25 % were kindergarten students, 35 % were in the first grade, 27 % were in the second grade, and 13 % were in the third grade. According to parent reports, 72 % of the students were white/non-Hispanic, 8 % were African-American, and 19 % were reported as other (i.e., Latino, American-Indian, Asian, or biracial). Forty-seven percent of students met the criteria for free and reduced-price lunch; 4 % came from families where English was not spoken as the primary language at home.

Two hundred and six parents were included in the study, 90 % of whom were female. Parents' average age was 34.7 years (SD=7.8 years); 86 % were white/non-Hispanic, 5 % were black, 4 % were Latino, and the remainder reported as other. Fifty percent of parents reported they earned high school diploma as their highest level of educational attainment; 45 % earned college or advanced degrees; 4 % did not have a high school diploma or equivalent.

Eighty-two general education teachers also participated in the study. The majority of teachers were female (95 %) and self-reported as white/non-Hispanic (99 %). Teachers reported that they were in the current position an average of 9.7 years (SD=9.7).

Measures

Behavior Assessment System for Children-Second Edition (Reynolds and Kamphaus 2004) The Behavior Assessment System for Children-Second Edition (BASC-2) is designed to measure behavioral and emotional problem symptoms in individuals from 2 to 25 years of age. The BASC-2 is a multidimensional instrument used to assess an individual's behavioral and emotional problems in multiple environments (Reynolds and Kamphaus 2004).

The Parent Rating Scales (PRS) and the Teacher Rating Scales (TRS) forms were used in the current study. The BASC-2 reports *T* scores (M=50, SD=10), and three composites were of interest for the purpose of this study: Externalizing Problems, Internalizing Problems, and Adaptive Skills. The internal consistency of the three composites for both parent and teacher forms were strong with α levels in the 0.90s for Externalizing Problems and Adaptive Skills and in the high 0.80s to low 0.90s for Internalizing Problems. The BASC-2 correlated well with other behavioral measures including the Achenbach System of Empirically Based Assessment (ASEBA; Achenbach and Rescorla 2001). For instance, the PRS correlations with the ASEBA were strong for Externalizing Problems (ranging from r=0.73 to 0.84) and Internalizing Problems (from r=0.65 to 0.75). Similarly, the TRS had strong correlations with the ASEBA for Externalizing Problems (ranging from r=0.75 to 0.85) and Internalizing Problems (ranging from r=0.64 to 0.80). Confirmatory factor analysis supported the construct validity of the three composites and their scales (Reynolds and Kamphaus 2004).

Parenting Stress Index-Third Edition, Short Form (Abidin 1995) The Parenting Stress Index-Third Edition, Short Form (PSI/SF) is a 36-item scale used to assess parental distress, difficult child characteristics, and dysfunctional parent-child interactions. The PSI/SF utilizes a 5-point scale for raters to respond to questions from strongly disagree to strongly agree. The test-retest reliability of PSI/SF was 0.96 when measured

for intervals of 1 to 3 months (Abidin 1995). For this current study's sample, Cronbach's alpha was 0.89.

Social Skills Rating System (Gresham and Elliott 1990) Parents and teachers completed the Social Skills Rating System (SSRS) which measured different dimensions of social behaviors, including cooperation, assertion, and self-control. A composite Social Skills standard score was derived (M=100, SD=15). Gresham and Elliott (1990) reported SSRS's internal consistency for the elementary (grades K-6) teacher form as 0.94 and the elementary parent form as 0.87. They also provided evidence of construct validity by comparing analyses of their instrument to literature on developmental changes in social skills, problem behaviors, and academic competence.

Child Disability Status Parents and teachers completed a checklist indicating any clinical diagnosis or special education classification relevant to participating children. A child was identified as having a disability if either of the following conditions were met: (a) the parent reported the child as having a clinical diagnosis (e.g., depression, anxiety, ADHD) and/or (b) the teacher verified the student was receiving special education services under any special education classification (e.g., learning disability, speech/language impairment, behavioral disorder). It was possible a child was identified for multiple disabilities; however, we dichotomized the variable by determining whether a child has a type of disability. Based on the decision rule, 81 children (39 % of sample) were identified as having a disability. Frequencies of clinical diagnoses and special education categories are provided in Table 1.

Procedure

Data for this study were collected as part of a randomized trial to examine the efficacy of Conjoint Behavioral Consultation (Sheridan and Kratochwill 2008). The project aimed at improving the social and behavioral functioning of students who displayed disruptive behavioral problems at school. Participants were continually recruited over the course of 4 years, and the pre-intervention data were used to address our research questions. Qualifying students were identified based on teacher referral of students who displayed disruptive behaviors at school. Specifically, multiple teacher screening measures were used in the identification: the Systematic Screening for Behavior Disorders (Walker and Severson 1990) and ratings of the frequency and severity of behavior problems and the need for additional intervention.

Parents and teachers completed questionnaires to provide information on students' social and behavioral functioning. Trained graduate students distributed and collected questionnaires via mailing, sending packets with students, and delivering them in person. Detailed instructions were included in the questionnaires. Materials were read aloud to parents not proficient in English. For those whose primary language was Spanish, materials were translated in Spanish, which accounted for 4 % of the materials. Interpreters recommended by the students' schools assisted with completion of the questionnaire. The point of time at which they completed the questionnaires varied given that study recruitment occurred continually over the life of the project. In general, parents and teachers returned their packet within 2 weeks upon distribution.

Analytic Strategy

We used multivariate analysis of variance (MANOVA) to address our first research question. The first question targeted the effect of identified disability status on parent and teacher ratings which involved multiple dependent variables (i.e., Externalizing Problems, Internalizing Problems, Adaptive Skills, and Social Skills). All pertinent assumptions for the MANOVA procedures were met for both parent and teacher analyses. The homogeneity of variance and a normal distribution of dependent variables were analyzed through plots and statistical procedures. We used Cohen's d as an effect size measure instead of η^2 because the former allows for an easier interpretation of the mean differences (Fritz et al. 2012). In calculating Cohen's d, the standard deviation was computed by taking the square root of the mean squared error (Fritz et al. 2012).

Table 1 Frequency of a child's identified disability status

Parent report of clinical diagnosis	Frequency	Teacher report of special education	Frequency
Attention-deficit/hyperactivity disorder	34	Speech/language impairment	25
Oppositional defiant disorder	7	Behavior disorder	21
Learning disorder	6	Attention-deficit/hyperactivity disorder	17
Anxiety disorder	5	Learning disability	15
Conduct disorder	4	Orthopedic impairment	7
Depression/dysthymia	3	Visual impairment	4
Other (e.g., bipolar disorder, obsessive compulsive disorder)	12	Other (e.g., autism, hearing impairment)	15

A child may have more than one diagnosis and/or special education category

For our second research question, hierarchical multiple regression was used to determine whether child disability status accounted for a unique portion of the variance beyond parental stress for parent ratings. Hierarchical multiple regression was chosen given that both independent and dependent variables involved continuous variables, and it allows the researcher to determine the order of independent variables to use. For the multiple regression analyses, the independent variables had a linear relationship and the residual variance was constant across independent variables, whereas tests of residual normality resulted in non-normal distributions. However, violations of the latter assumption do not produce serious problems (Cohen et al. 2003). Also, we examined missing data; the amount of missing data ranged from 10 % (SSRS parent ratings) to 35 % (PSI). Missing data in the PSI were largely due to production errors in some of the questionnaire packets (i.e., the scale was accidently not included in some of the packets). Our examination of the pattern of missing data indicated that child age was related to the amount missing. Specifically, more missing data were found for younger children in the BASC-2 parent ratings of Externalizing Problems, Internalizing Problems, and Adaptive Skills; more missing data were found for older children in the PSI. We did not suspect that missing data on a variable is associated with the score on the same variable had it not been missing (e.g., parents do respond to items on externalizing problem items if their child is high or low on that characteristic). These patterns led us to assume that the data were missing at random (MAR). Accordingly, we used the multiple imputation procedure (MI; Schlomer et al. 2010) to treat missing data which has been demonstrated to yield unbiased estimates under MAR mechanism (Enders 2013). In implementing the MI procedure, we created five imputed data sets and conducted the same analyses on each data set. Subsequently, parameter estimates and standard errors were pooled from the five analyses to be reported in the results.

Results

Descriptive statistics for the parent and teacher ratings used to address our research questions are presented in Table 2. Consistent with the referral concern, the children involved in this study had higher levels of externalizing problem behaviors than the general population as reported on parent and teacher rating scales; the overall mean scores of the students were considered at risk (*T*-scores above 60) for externalizing behaviors on both parent and teacher ratings. Teachers rated the participating children as displaying elevated levels of Externalizing and Internalizing Problems (over 1 SD above the mean) and lower levels of Adaptive and Social Skills (approximately 1 SD below the mean). In contrast, parent ratings were elevated on Externalizing Problems (1 SD above the mean) but not on Internalizing Problems (average). Parent ratings of participating children's Adaptive and Social Skills were lower than the mean but were still within one standard deviation of the mean (i.e., average). Teachers consistently rated participating children's behaviors more problematic across the areas assessed. We also examined the correlations between parent and teacher ratings of each behavior; the magnitude of the correlations was small, ranging from r=0.19 (Social Skills) to r=0.29 (Internalizing Problems and Adaptive Skills).

Impact of Child's Identified Disability Status on Parent and Teacher Ratings

We examined whether mean differences existed in behavior ratings between children with disabilities and those without disabilities. Separate MANOVAs were conducted for parent and teacher ratings.

Parent Ratings An omnibus MANOVA was conducted to determine if the presence of a disability resulted in significantly different mean parent ratings of Externalizing Problems, Internalizing Problems, Adaptive Skills, and Social Skills. The omnibus MANOVA for parents was significant at a 0.05 alpha level (Wilks' λ=0.85, $F_{4,157}$=6.84, p<0.01, η_p=0.99), indicating a presence of significant differences in parents' ratings of children with and without a disability. Following the significant results from the MANOVA, we examined the univariate main effect for each dependent variable. As shown in Table 3, parents consistently rated their child's behaviors as more problematic if the child had an identified disability. Specifically, on the BASC-2 Externalizing Problem composite, the mean parent rating of a child with a disability (M=67.13) was significantly greater than a child without a disability (M=57.62), with a large effect size present (d=0.75). For the BASC-2 Adaptive Skills (M=40.70 versus M=45.28, d=0.43) and the SSRS Social Skills (M=86.04 versus M=96.22, d=0.63), children with a disability were rated lower than did children without a disability with medium effect sizes.

Teacher Ratings The results of a MANOVA indicated statistically significant differences in teachers' ratings between children with and without a disability (Wilks' λ=0.94, $F_{4,170}$= 2.54, p<0.05, η_p=0.99). Following the statistically significant MANOVA, univariate main effects were examined for each dependent variable, and the results are reported in Table 4. Differences in mean teacher ratings of children with and without a disability were not significant for the BASC-2 Externalizing and Internalizing Problems. The presence of a disability as compared to the absence of a disability, however, resulted in significantly lower average teacher ratings for the BASC-2 Adaptive Skills (M=39.51

Table 2 Descriptive statistics for the study variables

Variable	Parent		Teacher		*df*	*t*-score	Correlation
	M	SD	*M*	SD			
BASC-2 Externalizing Problems	61.27	14.35	68.15	11.72	158	5.22**	0.20*
BASC-2 Internalizing Problems	52.01	11.10	60.28	13.90	157	6.91**	0.29**
BASC-2 Adaptive Skills	43.42	9.36	41.47	6.80	158	−2.49*	0.29**
SSRS Social Skills	93.58	17.99	84.17	11.24	186	−5.80**	0.15*
Parenting stress	2.10	0.47	–	–	–	–	–

The *t*-statistic is based on paired-samples *t* test. Correlation is between parent and teacher ratings of each variable

*$p < 0.05$; **$p < 0.01$

versus $M=42.57$, $d=0.47$) and the SSRS Social Skills ($M=82.27$ versus $M=85.88$, $d=0.33$).

Impact of Child's Identified Disability Status on Parent Ratings Above and Beyond Parenting Stress

We evaluated the extent to which a child's disability status accounted for a unique portion of the variance in parent ratings of child behavior above and beyond parenting stress. A series of hierarchical multiple regression analyses were used for each dependent variable. Child gender and ethnicity were entered into the model first as control variables, followed by parenting stress, and then by child disability status. Categorical variables were dummy-coded in the regression analyses.

Table 5 shows the multiple regression analysis results, including the amount of adjusted variance accounted for by the model for each respective step. In the first step, child gender and ethnicity did not account for a significant portion of the variance for BASC-2 Externalizing Problems, Internalizing Problems, or the SSRS Social Skills, but child gender was a significant predictor of the BASC-2 Adaptive Skills. Specifically, girls were rated as displaying higher levels of adaptive skills than were boys. In the second step, parenting stress was a significant predictor for all behavior outcomes and accounted for a statistically significant proportion of the variance beyond child gender and ethnicity. The additional amount of variance explained by parenting stress ranged from 11.68 % (Internalizing Problems) to 20.17 % (SSRS Social Skills). Finally, child disability status was found to be a statistically significant predictor for the BASC-2 Externalizing Problems and for the SSRS Social Skills; it accounted for an additional 4.38 and 5.14 % of the variance, respectively, beyond child gender, child ethnicity, and parenting stress.

Discussion

Children with behavioral and/or academic difficulties commonly undergo multiple evaluations during their school years. In this study, we examined the manner in which children's pre-identified disability status affected parent and teacher behavior ratings among children who had behavioral difficulties at school. The present study is built upon the current assessment knowledge by examining whether a child's identified disability status is related to parent and teacher ratings of children's social and behavioral functioning. Although previous research has shown that an individual's hypothetical disability can impact others' perceptions of their behavior (Foster and Ysseldyke 1976; Ohan et al. 2011), it is unknown if a psychological or psychoeducational (i.e., special education) label might affect behavior ratings of children. Our results showed that parents rated children's externalizing behaviors to be more severe when children had a pre-identified disability, whereas disability status did not affect teacher ratings of externalizing behaviors. Both parents and teachers reported poorer adaptive and social skills for children with an identified disability than for those without one. The findings also indicated the impact of a child's identified disability on parent

Table 3 Comparison of parent ratings for children with and without a disability

Variable	No disability, *M* (SD)	Disability, *M* (SD)	*F* (1, 160)	Cohen's *d*
BASC-2 Externalizing Problems	57.62 (10.78)	67.13 (14.80)	22.38**	0.75
BASC-2 Internalizing Problems	51.24 (10.10)	54.91 (12.44)	4.30	0.33
BASC-2 Adaptive Skills	45.28 (8.85)	40.70 (12.64)	7.37**	0.43
SSRS Social Skills	96.22 (16.20)	86.04 (16.28)	15.55**	0.63

*$p<0.05$; **$p<0.01$

Table 4 Comparison of teacher ratings for children with and without a disability

Variable	No disability, *M* (SD)	Disability, *M* (SD)	*F* (1, 173)	Cohen's *d*
BASC-2 Externalizing Problems	66.69 (12.44)	69.79 (10.41)	2.98	0.27
BASC-2 Internalizing Problems	59.06 (14.66)	61.77 (12.68)	1.61	0.20
BASC-2 Adaptive Skills	42.57 (7.06)	39.51 (5.52)	9.40**	0.47
SSRS Social Skills	85.88 (11.86)	82.27 (9.48)	4.60*	0.33

*$p<0.05$; **$p<0.01$

ratings was significant, albeit small, after controlling for parenting stress, child gender, and child ethnicity.

A major finding of this study is that having a diagnosed disability might affect respondents' ratings of children beyond characteristics of the respondent and/or the child. One might argue that it is intuitive that children with a disability have more social/behavioral problems than those without a disability. Although plausible, the argument appears to overlook nuanced but important perceptual processes that might be involved in behavior ratings of children with an identified disability. Most of all, if a disability primarily accounts for the severity of behavior, one would expect that both parents and teachers would similarly rate the behaviors of children with a disability more problematic than those of children without a disability. This speculation was not supported. Except for internalizing problems, parents' ratings were more negative for children with an identified disability than for those without a disability. In contrast, teachers rated children with a disability as being more problematic than those without a disability on adaptive and social skills, but not on externalizing and internalizing problems. The findings were more intriguing given that, in general, teachers rated the behaviors of a given child as more problematic (i.e., higher levels of externalizing and internalizing problems and lower levels of adaptive skills and social skills) than did parents. Together, it might be that a child's identified disability has a greater impact on parent perceptions as compared to teacher perceptions of behavior.

Consistent with prior research (Achenbach et al. 1987; De Los Reyes and Kazdin 2005), we found a discrepancy between parent and teacher ratings of children's behaviors as evidenced by the small magnitude of correlations between the two, and teachers rated children's behavior more negatively than did parents. These discrepancies might be explained by the nature of home and school environments and how the disability manifests within the contexts of the environment. The overall more negative ratings by teachers than by parents might reflect the participating children's behavioral difficulties in school. It is also possible that discrepancies between parent and teacher ratings of children's behaviors are due to

Table 5 Hierarchical multiple regression of child disability status as a predictor of parent ratings beyond child gender, child ethnicity, and parenting stress

	BASC-2 Externalizing Problems			BASC-2 Internalizing Problems			BASC-2 Adaptive Skills			SSRS Social Skills		
	ΔR^2	*B*	SE B	ΔR^2	*B*	SE B	ΔR^2	*B*	SE B	ΔR^2	*B*	SE B
Step 1	0.01			0			0.03			0		
Child gender		4.36	2.64		−2.33	2.04		−4.69*	1.89		0.65	2.92
Child ethnicity		1.97	2.49		0.27	2.07		−1.93	1.85		−2.03	2.79
Step 2	0.13**			0.12**			0.19**			0.20**		
Child gender		4.55	2.50		−2.19	1.91		−4.88**	1.71		0.36	2.64
Child ethnicity		1.81	2.26		0.14	2.06		−1.75	1.65		−1.75	2.52
Parenting stress		9.28**	2.33		7.23**	1.82		−8.94**	1.39		−14.15**	2.09
Step 3	0.04**			0			0			0.05**		
Child gender		3.70	2.42		−2.41	1.94		−4.62**	1.70		1.45	2.59
Child ethnicity		2.02	2.21		0.19	2.06		−1.81	1.64		−2.02	2.43
Parenting stress		8.22**	2.42		6.97**	1.83		−8.63**	1.44		−12.81**	2.04
Child disability		6.53**	2.35		1.69	1.73		−2.00	1.71		−8.34**	2.38

R^2 is the average across the five imputations. Child gender, ethnicity, and disability variables were dummy-coded (1=male, ethnic majority or European-American, and presence of identified disability, respectively)

*$p<0.05$; **$p<0.01$

the scope of the reference group. When evaluating a child's behavior, for example, teachers are able to compare one child's behavior to multiple children of the relatively same age in the same classroom.

Respondents' individual characteristics have also been found to impact their ratings of a target child's functioning (De Los Reyes and Kazdin 2005). In our study, we examined parenting stress, and our results showed parenting stress accounted for a small but significant proportion of the variance beyond the control variables and child gender and ethnicity, for all four dependent measures. It is possible that increased parental stress negatively affects the perceptions of their children's behaviors, leading them to rate the behaviors as more problematic.

The results of this study extend the literature involving informant discrepancies in behavior ratings and the effect a child's disability status can have on an informant's perceptions of the child within a natural environment. The results also inform practitioners in an important manner: Psychologists and other mental health practitioners should be aware of potential perceptual bias that may be present in informants' ratings. Our findings indicate that the presence of a disability can serve as one source of perceptual bias, especially for parents. That is, the mean parent Externalizing Problems *T*-score was within the average range for children without a disability. However, when the child had an identified disability, the mean parent Externalizing Problems *T*-score fell into the "at-risk" range. Notably, both parents and teachers rated children with a disability lower on Adaptive Skills and Social Skills as compared to children without a disability. It might be that impairments in adaptive functioning are a defining characteristic of children with a disability.

Some cautions need to be taken in interpreting the results. Even though we found statistically significant effect of parenting stress and child disability status on parent ratings, our models at best accounted for 25 % of the variance in the dependent variable. This indicates that parenting stress and child disability account for a small amount of variance in parent ratings. Additionally, we implemented multiple imputations to address missing data. Although this method has been well-researched, our dataset and analyses would have been significantly stronger if the correctional actions were not needed.

Limitations

There are some important limitations needing consideration. One of these limitations was our sample: the participants within our study included children, teachers, and parents from a Midwestern city and its surrounding area. Therefore, this sample was not nationally representative in regards to ethnicity, gender, geographic location, and other pertinent demographic features. Likewise, the lack of an ethnically diverse sample prevented us from examining the associations by ethnic group. Researchers should determine if the results hold with a more representative sample or with a sample targeting specific racial/ethnic groups. Research could be conducted to explore whether race/ethnicity of students, parents, and/or teachers have a more pronounced effect on ratings of children with disabilities.

The reasons behind rating children with a disability more negatively, especially for parents, are not completely clear, which could be the focus of future research questions. Differences between children with and without a disability might be due to the actual behavioral difficulties manifested in the diagnosed disorder. In this study, we did not examine if specific disability types, within disability status, have more of an impact on parent and teacher ratings. For example, a student with emotional/behavioral problems or ADHD may have greater differences in parent and teacher ratings of externalizing problems than a student who has a speech/language disorder because the former is characterized by problems maintaining focus, regulating behaviors in a structured setting, and inhibiting impulsive behaviors. Researchers should examine how different disability categories impact parent and teacher perceptions. Lastly, given that this was a cross-sectional study, it is impossible to create a causal link between informants' awareness of a child's pre-identified disability status and their ratings of child's behavioral functioning.

Conclusion

We believe that the merit of our research lies in examining the potential effect that a child's pre-identified disability status may have on parent and teacher behavior ratings within the home and school environment. Previous research has predominately used case scenarios to study this phenomenon, and our study helps to reproduce and build upon previous findings within the real-world environment. Our findings demonstrate that identified disability status may have an influence on informants' behavior ratings. The demonstrated link between informants' knowledge of a child's disability and their child behavior ratings should provide school psychologists with useful clinical insights and help them to better conceptualize a child's functioning during the assessment process.

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