Published in final edited form as:

Atten Defic Hyperact Disord. 2012 December ; 4(4): 189–197. doi:10.1007/s12402-012-0089-z.

Parental Efficacy and Child Behavior in a Community Sample of Children with and without Attention-Deficit Hyperactivity Disorder (ADHD)

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Abstract

Purpose—Most studies of ADHD youth have obtained data from the perspective of either children or parents, but not both simultaneously. The purpose of this study was to examine child and parent perspectives on parenting in a large community-based sample of children with and without ADHD.

Methods—We identified children in grades 4–6 and their parents through surveys administered to a random sample of public schools. We used multivariable logistic regression to determine independent associations between child and parent characteristics and presence of ADHD while controlling for covariates and clustering by school.

Results—Sufficient data were achieved for 2509 child/parent dyads. Ten percent of youths (n=240) had been diagnosed with ADHD. Compared with those without ADHD, those with ADHD were more commonly male (67.9% vs. 48.0%, $P<.001$) and age 12 or over (16.3% vs. 10.3%). After adjusting for covariates and clustering, compared to children without ADHD, children with ADHD were significantly more likely to report lower self-regulation (OR= 0.68, 95% CI=0.53, 0.88) and higher levels of rebelliousness (OR= 2.00, 95% CI=1.52, 2.69). Compared with parents whose children did not have ADHD, parents of children with ADHD rated their overall parental efficacy substantially lower (OR=0.23, 95% CI=0.15, 0.33). However, child assessment of parenting style was similar by ADHD.

Conclusions—Despite the internal challenges community-based youth with ADHD face, many parents of ADHD youth exhibit valuable parental skills from the perspective of their children. Feedback of this information to parents may improve parental self-efficacy, which is known to be positively associated with improved ADHD outcomes.

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Keywords

ADHD; child behavior; parental efficacy; school performance

INTRODUCTION

Between 5-10% of children in the United States have attention-deficit hyperactivity disorder (ADHD) (Bloom & Cohen 2010; Visser & Lesesne 2003), and meta-analysis suggests that the prevalence outside the U.S. may be at least as high (Faraone, Sergeant, Gillberg & Biederman 2003; Sayal 2007). ADHD, a neurobiological disorder with a strong genetic component, is a chronic medical condition and the most commonly diagnosed mental disorder in childhood (Kuntsi, Rijdsdijk, Ronald, Asherson & Plomin 2005; Larsson, Larsson & Lichtenstein 2004; Wolraich et al. 2005). Core symptoms include developmentally inappropriate levels of attention, concentration, distractibility, impulsivity, and hyperactivity (American Academy of Pediatrics 2000; American Psychiatric Association 2000; Brown et al. 2001). Thus, ADHD may lead to compromised functioning in multiple settings, including home, school and community (American Academy of Pediatrics 2000).

Boys are more than twice as likely as girls to be diagnosed (11% versus 4% respectively) (Bloom & Cohen 2007; Visser & Lesesne 2003; Visser 2010), and diagnosis of ADHD has also been associated with low family socioeconomic status (Nomura et al. 2012). Studies have reported children with ADHD as emotionally less mature and more likely to experience school problems (Chronis et al. 2007; DeWolf et al. 2000; Gerdes et al. 2003; Harrison & Sofronoff 2002; Hoza et al. 2005; Kepley & Ostrander 2007; Lange et al. 2005; Pfiffner & McBurnett 2006; Scahill et al. 1999). ADHD children have also been reported to have increased aggression, disruptive behavior, substance abuse, and poor self-esteem (Wolraich et al. 2005; Chronis et al. 2003; Edbom, Lichtenstein, Granlund & Larsson 2006; Slomkowski et al. 1995). Children with ADHD also often exhibit self-perception bias, in which they underestimate behavioral dysfunction and overestimate academic competence relative to parent and teacher report (Sayal & Taylor 2005; Hoza et al. 2004).

Most reports of ADHD children have been based on small clinical samples from tertiary care hospitals, and they have primarily included ADHD children with co-morbidities including conduct disorder (CD), oppositional defiant disorder (ODD), anxiety or mood disorders and learning disabilities (Sayal 2007; Biederman, Milberger & Faraone 1995; Biederman, Faraone, Monuteaux, & Feighner 2000; Chronis et al. 2007; Cunningham & Boyle 2002; DeWolf et al. 2000; Gerdes et al. 2003; Harrison & Sofronoff 2002; Hoza et al. 2004; Hoza et al. 2005; Keown & Woodward 2002; Kepley & Ostrander 2007; Lange et al. 2005; Pfiffner & McBurnett 2006; Scahill et al. 1999). A majority of children with ADHD show symptoms of at least one comorbid psychiatric disorder (Gillberg et al. 2004; Bauermeister et al. 2007).

Many studies have reported impaired family functioning related to ADHD (Chronis et al. 2003; Gerdes, Hoza & Pelham 2003; Kepley & Ostrander 2007; Pfiffner & McBurnett 2006; Scahill et al. 1999; Modesto-Lowe et al. 2008). Other studies found general family functioning unaffected, although they did find parenting a child with ADHD to be stressful (DeWolf, Byrne & Bawden 2000), which may result in adverse effects on parental functioning (Modesto-Lowe et al. 2008). Moreover, maintenance and exacerbation of ADHD symptoms seem to be related to inconsistent parental discipline, especially from the father (Ellis & Nigg 2009). Thus, parent practices and family relationships are important for the developmental course and treatment outcomes of ADHD (Cunningham 2007; Johnston & Ohan 2005).

However, there is a lack of studies utilising community-based samples to assess child and parenting characteristics in ADHD families. Extant results are not necessarily generalisable to less-impaired community-based samples, which comprise the vast majority of individuals and families with ADHD (Bloom & Cohen 2007; Visser & Lesesne 2003). Additionally, the majority of studies on families with ADHD have assessed child and family functioning from the perspective of either children or parents, but not both simultaneously. Directly comparing child and parent perspectives may be particularly valuable in developing interventions to improve family functioning.

The primary aim (Aim 1) of this study was to examine simultaneously child and parent perspectives on parenting in a large community-based sample of children with and without ADHD. We hypothesised that, compared with other parents, parents of ADHD youth would rate their own parental efficacy as low. Similarly, we hypothesised that, compared with other youth, youth with ADHD would rate their parents as less effective. We also had two secondary aims (Aims 2a and 2b) which we addressed in order confirm prior findings in our population. Aim 2a was to compare child and parental sociodemographic characteristics of those with and without ADHD. Our *a priori* hypothesis was that, compared with girls, boys would be more likely to have ADHD, and that poorer, less educated parents would be more likely than their counterparts to have a child with ADHD. Aim 2b was to compare child self-report of key factors such as self-regulation, self-esteem, rebelliousness, and school performance by presence of ADHD. We hypothesised that youth with ADHD would be more likely to report lower self-regulation, lower self-esteem, higher rebelliousness, worse school performance, and disliking school.

METHODS

Participants and Procedures

Data were collected through child and parent surveys investigating the influence of parenting factors and media use on child and adolescent risk behaviors. We identified child participants through surveys administered to a random sample of New Hampshire and Vermont public schools. Full details describing the study population and methods have been previously published [Reference removed for blind version]. Briefly, 30% (N=26) of randomly selected Vermont and New Hampshire schools with grades 4 through 6 agreed to participate in the study. Between October 2002 and December 2003 we surveyed 87% (N=3705) of age-eligible students at these schools.

The child survey included 2 components: a self-administered written questionnaire at school and a telephone survey administered an average of 9 weeks after the school survey. At the time of the telephone survey, we also enrolled and surveyed students' parents, preferably the mother. Full baseline assessments were achieved for 2566 child/parent dyads, which represented 69.3% of those surveyed at school. Fifty-seven dyads were excluded from this analysis due to missing data. Thus, the final analyses were based on 2,509 parent-child dyads, for which 95.2% of the parent respondents were mothers.

The study was approved by the Committee for the Protection of Human Subjects at [name of university removed for blind version].

Measures

Demographic Data—Children's age, gender, race and school performance were assessed through the child school survey. Parental age, educational attainment, approximate household income, and marital status were obtained directly from the parent on the

telephone survey. Parents also reported on their health history, including smoking and alcohol consumption. These items are listed in Table 1.

Child Personal Characteristics—We assessed child characteristics, including self-regulation (4 items; $\alpha=0.58$), self-esteem (4 items; $\alpha=0.75$), and rebelliousness (8 items; $\alpha=0.79$) through the child telephone survey. The individual items, which were adapted from previously validated instruments (Russo 1993; Pierce 1993; Carvajal 2000), were developed and extensively tested in a large sample of school children in the Northeastern U.S. [Reference removed for blind version] and are listed in Table 2. Children were asked to indicate how well each statement described them using a four-point Likert response scale that ranged from “Not like me” to “Exactly like me.” School performance was measured by asking “How would you describe your grades in school last year?” to which children could respond “excellent,” “good,” “average,” or “below average.”

Parenting, Parent Perspective—We assessed perception of parental efficacy (9 items; $\alpha=0.80$)—specifically with respect to the child participating in the study—through the parent telephone survey by asking the mother or primary caregiver “When you think of parenting <child name> how often do you feel [frustrated; worried; sure of yourself; upset; happy; worn out; helpless; satisfied; like an effective parent?]” (Perlin 1978) The four-point Likert response scale ranged from “Almost never” to “Almost always.”

Parenting, Child Perspective—Developmentally, it was deemed inappropriate to ask children identical items regarding parenting, because terms such as “frustrated” and “effective parent” may have been confusing to youth. Therefore, to assess children’s perception of their primary caregiver’s parenting, we items adapted from a previously validated measure of parenting efficacy from the child perspective (Jackson 1998). This measure assesses demandingness (9 items; $\alpha=0.75$) and responsiveness (5 items; $\alpha=0.87$), each of which is considered beneficial for parenting. The individual items are listed in Table 3, and children used a Likert-type response scale to indicate how well each statement described their mother or primary caregiver.

Presence of ADHD—As a proxy for DSM-IV-TR ADHD diagnosis, which was not feasible in this large community-based sample, we asked the mother or primary caregiver “Has your child ever been diagnosed with attention deficit disorder, or ADHD?” If the response was yes, the respondent was then asked “Does your child currently take any medication for ADD or ADHD?” Parental report of ADHD diagnosis is commonly used in other large population studies of ADHD (Bloom & Cohen 2007; Bloom, Cohen, & Freeman 2010; Royland et al. 2002; Schneider & Eisenberg 2006; Visser & Lesesne 2005; Visser, 2010).

Statistical Analyses

Analyses were conducted in SAS 9.1 (Cary, NC) and Stata 11.1 (College Station, TX). A two-sided *P*-value of 0.05 was considered statistically significant.

Aim 1—We developed summary scores for each of the three continuous parenting measures (parental efficacy by parental report, and parental responsiveness and demandingness by child report) using weighted averages and reverse-coding items when appropriate. We built multivariable logistic regression models for each of these continuous measures with presence of ADHD as the dependent variable, and odds ratios (OR) and 95% confidence intervals (CI) indicated the change in risk of ADHD for each 1 point increase in summary score measures. These analyses were adjusted for child’s age and gender, parental education and household income, and clustering by school. These adjustments were performed using

the xtlogit command in Stata, which enables control variables to be entered sequentially after the dependent and independent variables. The analysis used a random effects estimator, which was both more conservative and more appropriate for our sample and covariates.

Aim 2a—We used chi-square tests and *T*-tests to evaluate differences in demographic characteristics between children and parents with and without ADHD. Child characteristics for these analyses included age and gender; race was not included because the vast majority of participants were Caucasian. Parental demographic data included age, education, income, marital status, smoking, and alcohol use.

Aim 2b—We developed summary scores for each of the three continuous child personal characteristics (self-regulation, self-esteem, and rebelliousness) using weighted averages and reverse-coding items when appropriate. Higher summary scores indicated higher levels of these characteristics. We built multivariable logistic regression models for each of these continuous measures with presence of ADHD as the dependent variable. Odds ratios (OR) and 95% confidence intervals (CI) indicated the change in risk of ADHD for each 1 point increase in summary score measures. These analyses were adjusted for child's age and gender, parental education and household income, and clustering by school. We developed similar multivariable models for the categorical independent variables assessing school performance and liking school and the dependent variable of presence of ADHD.

RESULTS

Ten percent of participants ($n=240$) were reported by their parents to ever be diagnosed with ADHD (Table 1). Compared with those without ADHD, those with ADHD were more commonly male (67.9% vs. 48.0%, $P<.001$) and age 12 or over (16.3% vs. 10.3%). Mean age for those with ADHD was 10.5 ($SD = 0.95$) and for those without ADHD was 10.3 ($SD = 0.91$). Nearly two-thirds of students with reported ADHD (65%) were currently taking medication. Compared with other parents, parents of ADHD children had lower education ($P<.001$) and income ($P<.001$). Compared with their counterparts, parents of ADHD youth were also less commonly married (82.1% vs. 88.6%, $P=.003$), more commonly smokers (49.2% vs. 32.9%, $P<.001$), and less commonly frequent drinkers (21.8% vs. 31.1%, $P<.001$).

After adjusting for children's age and gender, parental education and household income, and clustering by school, ADHD was associated with lower self-regulation ($OR=0.68$, 95% $CI=0.53, 0.88$) and higher levels of rebelliousness ($OR=2.07$, 95% $CI=1.62, 2.65$) (Table 2). Children with ADHD reported poorer school performance than those without ADHD, but they had similar odds for reporting that they liked school. In the unadjusted results, children with ADHD were more likely to report that they (1) wished that they were someone else; (2) were unhappy; and (3) did not feel smart (data not shown). However, after adjusting for covariates, the odds for ADHD were not significantly associated with the aggregate self-esteem score ($OR=0.84$, 95% $CI=0.69, 1.03$).

Parents of children with ADHD rated their overall parental efficacy substantially lower than parents whose children did not have ADHD ($OR=0.22$, 95% $CI=0.16, 0.31$, Table 3). However, child assessment of parenting style was similar by ADHD (Table 3).

DISCUSSION

About 10% of our large, community-based sample of youth ages 8-13 had been diagnosed with ADHD. Compared with their counterparts, those diagnosed were more likely to be male, and their parents tended to have lower levels of education and income. Children with

ADHD were more likely than their peers to report poor self-regulation, increased rebelliousness, and poor school performance, although they did not have worse self-esteem or liking of school. From their perspective, parents of ADHD children found parenting stressful, yet their children felt they were doing a job equal to other parents.

Our reported ADHD prevalence of 10% in a predominantly rural population, with higher rates among males versus females (13% vs. 6%, respectively), is similar to but somewhat higher than previous reports (Bloom & Cohen 2007; Royland et al. 2002; Schneider & Eisenberg 2006; Visser & Lesesne 2003; Visser 2010; Froehlich et al. 2007). The National Health and Interview Survey for 2006, which provided national estimates for broad range issues for non-institutionalised children under the age of 18 years, reported a national ADHD prevalence (based on parent-reported diagnosis) of 7%, with the Northeast reporting a prevalence of 6.7% and non-metropolitan areas reporting a prevalence of 9.1% (Bloom & Cohen 2007). Our prevalence may also have been high because we asked for lifetime prevalence instead of point prevalence. Our reported rate of overall ADHD medication use and findings that ADHD children were more likely to be male and have parents with a high school education or less, were similar to other reports (Royland et al. 2002; Schneider & Eisenberg 2006). Thus, our hypotheses related to Aim 2a were upheld.

Our hypotheses for Aim 2b were upheld for self-regulation, rebelliousness, and school performance, but not for self-esteem or liking school. Previous work found children with ADHD may underestimate key symptoms and competence compared to parent and teacher report (Hoza et al. 2004). In our sample, ADHD children had a fairly accurate perception of their symptoms, as they rated their rebelliousness higher and their self-regulation lower than their non-ADHD peers. However, ADHD children in our study may still have underrated their behavior compared to adults' ratings, which were not assessed in this study.

Although previous work found ADHD children may underreport their school problems, and that parent ratings are more accurate and predictive of children's performance (Cunningham & Boyle 2002), we found that youth recognised that they generally had low school performance. Ironically, this may be because of the higher academic ability of our community-based sample, compared with hospitalised or more heavily medicated subjects in previous studies. Large discrepancies in academic achievement, particularly reading and mathematics, have been reported in children with ADHD (American Academy of Pediatrics 2000). However, as with our findings of child behaviour self-assessment, we cannot say whether ADHD children are accurately reporting their school performance compared with their parents.

Previous work has reported ADHD children at age 13 to have low self-esteem, which was associated with severity of symptoms (Edbom, Lichtenstein, Granlund & Larsson 2006). However, these associations were not significant in our multivariable models. Although it is not certain, our sample may reflect the larger community of ADHD children, which included individuals with milder symptoms. Also, measures of self-esteem used in studies have varied. Maintaining a child's self-esteem and interest in school are important for optimal academic achievement and decreased health risk behaviors in adolescence (Bonny et al. 2000; Resnick et al. 1997). Because there were differences in the expected direction in bivariable models, it is possible that we simply did not have sufficient statistical power to detect differences in multivariable models. Still, it is interesting that, despite having awareness of poor school performance, children with ADHD did not seem to like school less than their counterparts. This may represent resilience, which may be bolstered via interventions.

Our hypothesis for our primary aim (Aim 1) regarding parental self-report was upheld. This is consistent with previous reports, most of which involved small clinical samples of children with ADHD and co-morbid conditions and used parental self-report or observation (Chronis et al. 2007; Hoza et al. 2000; Keown & Woodward 2002; Maniadaki, Sonuga-Barke, Kakouros, & Karaba 2005). In those studies of children with more severe compromise, impaired family cohesion and conflict was frequent, and parenting stress increased with severity of the child's behavioural disturbance and aggression. In our study, parents of ADHD children felt more frustrated, worried, upset, worn out and helpless. Parents' perception of competence is important, because it may influence not only parenting but also family dynamics and parental health (Chronis et al. 2007; Hoza et al. 2000; Maniadaki et al. 2005; Lesesne, Visser & White 2003). Previous work found coping skills and parent support mediated the association between ADHD and adolescent health risk behaviors (Molina, Marshal, Pelham & Wirth 2005). Maternal parenting self-efficacy has been found to be an important moderator of treatment success for behavioural parent training for ADHD, underscoring the need for positively maintaining parental efficacy in these parents (Johnston, Mah, & Regambal 2010; van den Hoofdakker et al. 2010).

Interestingly, our hypothesis for Aim 1 regarding child report of parenting was not upheld: child assessment of parenting was not significantly different by ADHD diagnosis. To our knowledge, previous studies of ADHD and parenting have not measured child assessment of parenting. Previous reports indicate mothers of ADHD children perceive themselves as less competent, less assertive, and more likely to give in to their children (Keown & Woodward 2002). However, in our study, there was little difference in children's overall perception of their parents' demandingness. This suggests that even though parents of ADHD children may feel that it is substantially more challenging to parent them effectively, from the children's perspective they are equally effective at setting rules and limits. This may be a source of comfort for parents, and interventions may help feed back this important information to parents as they struggle with parenting a child with ADHD in the community setting.

Although our study assessed a large community-based sample, students were from one geographic region and were mostly Caucasian, and only 30% of schools originally approached agreed to participate in the study. Thus, external generalisability to other populations is limited. It is also important to note that the cross-sectional nature of these data inhibit our ability to fully elucidate the likely bidirectional associations between ADHD symptomatology and parenting. For example, parents of children with more severe symptoms may have ADHD themselves, which would influence their parenting. It would be valuable for future studies to assess these associations temporally. Another limitation is that we were not able to confirm ADHD diagnoses with formal psychiatric interviews, and thus subtypes and co-morbidities were not defined. As discussed, co-morbidities can substantially impact both child school performance and parenting (American Academy of Pediatrics 2000; Wolraich et al. 2005; Cunningham 2007). Also, we were limited by certain differences between child and parental measures of parenting; because of concerns about youth comprehension, we had to select scales which are somewhat different in their focus.

Despite these limitations, these data may be valuable in beginning the important work of developing interventions to support families with ADHD youths in the community. For example, they confirm demographic characteristics of children and their parents, which may enable us to target program elements to this population. It is also valuable to note that, while youth with ADHD recognise many of their limitations, many still like school and maintain adequate self-esteem, which can be further bolstered in community-based interventions. Finally, it is valuable to note that, despite the internal challenges they face, many parents of ADHD youth exhibit valuable parental skills from the perspective of their children. These

findings underscore that family support and school accommodations may help to achieve the best outcomes for ADHD children to maintain school connectedness, achieve optimal functional outcomes, and promote positive parenting and overall family health.

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Table 1

Demographics of Children and Parents by ADHD Status.

Characteristic	No ADHD N=2,269 Column % [*]	ADHD N=240 Column % [*]	P-value
Children			
Age			.01
8-9	20.3	16.3	
10-11	69.5	67.5	
12-13	10.3	16.3	
Gender			<.001
Male	48.0	67.9	
Female	52.0	32.1	
Parents			
Age			.09
20-29	4.5	6.7	
30-39	48.8	52.9	
40-60	46.8	40.4	
Education			<.001
HS or less	31.8	43.7	
Some college / associate degree	38.5	39.9	
Bachelor's or more	29.6	16.4	
Income			<.001
< \$25,000	10.5	21.4	
\$25,000-\$40,000	23.3	32.5	
\$40,001-\$65,000	30.0	29.5	
>\$65,000	36.1	16.7	
Has spouse / partner	88.6	82.1	.003
Either parent smokes	32.9	49.2	<.001
Drinking			<.001
Neither drinks	12.9	20.6	
One or both drink occasionally	56.0	57.6	
One or both drink weekly or more	31.1	21.9	

^{*} Percentages may not total to 100 because of rounding. No data were missing for children. Missing parent data were for gender (3); education (10); income (34); smoking (2); and drinking (9).

Table 2

Child-Reported Scores of Self-Regulation, Self-Esteem, Rebelliousness and School Measures among Those with and without ADHD.

Characteristic	No ADHD N=2,269 Percent*	ADHD N=240 Percent*	OR [†] (95%CI)	Wald Score (df), P
Self-Regulation Score, Mean (±SD)[‡]	2.1 (±0.6)	1.9 (±0.6)	0.67 (0.53, 0.84)	98.1 (9), <.001
Good at waiting turn	61.9	55.8		
Homework done first	61.6	52.5		
Bother other students [§]	4.4	8.7		
Have to be reminded [§]	15.8	27.2		
Self-Esteem Score, Mean (±SD)[‡]	2.2 (±0.7)	2.1 (±0.7)	0.84 (0.69, 1.03)	87.8 (9), <.001
Wish I was someone else [§]	9.5	15.5		
Like myself the way I am	76.8	72.8		
Happy with how I look	75.0	69.0		
Pretty smart at school	73.5	66.3		
Rebellious Score, Mean (±SD)[‡]	0.4 (±0.5)	0.7 (±0.6)	2.07 (1.62, 2.65)	116.5 (9), <.001
Get in trouble at school	7.1	16.3		
Argue a lot with other kids	9.8	20.6		
Do things parents wouldn't	5.5	10.9		
Do what teachers tell me	85.7	72.0		
Argue with teachers	3.5	9.7		
Likes to break rules	2.4	6.3		
School performance				100.8 (9), <.001
Excellent	40.8	22.2	Reference	
Good	43.3	50.6	1.80 (1.27, 2.55)	
Average/Below Average	15.9	27.2	2.17 (1.47, 3.30)	
Likes school				85.6 (9), <.001
Not at all/A little	28.6	34.6	Reference	
Some/A lot	71.4	65.4	0.92 (0.68, 1.24)	

* Percentages may not total to 100 because of rounding. Missing data were for Self-Regulation Score (4); Self Esteem Score (8); Rebellious Score (9); School performance (12); and Like going to school (12).

[†] OR adjusted for child age and gender, parent education, household income and clustering by school. For Self-Regulation, Self Esteem, and Rebelliousness, OR and 95% CI indicate the change in the odds of ADHD diagnosis for each 1 point increase in summary score measures.

[‡] For Self-Regulation, Self Esteem and Rebelliousness, the range of scores is 0 = Not like me; 1 = A little like me; 2 = A lot like me; 3 = Exactly like me. The percentage reported is for those who responded "a lot" or "exactly like me"

[§] These items were reverse coded when integrated into the summary score.

Table 3

Comparison of Parenting Style from Both Parental and Child Perspectives.

Characteristic	No ADHD N=2,269 Percent [*]	ADHD N=240 Percent [*]	OR [†] (95% CI)	Wald Score (df), <i>P</i>
Parent Report				
Parental Efficacy, Mean (±SD)	2.3 (±0.4)	2.0 (±0.5)	0.22 (0.16, 0.31)	151.5 (9), <.001
Do you feel frustrated? [‡]	7.5	31.3		
Do you feel worried? [‡]	20.9	40.4		
Do you feel sure of yourself?	86.3	75.4		
Do you feel upset? [‡]	2.0	6.3		
Do you feel happy?	95.0	90.4		
Do you feel worn out? [‡]	6.5	25.0		
Do you feel helpless? [‡]	1.6	7.9		
Do you feel satisfied?	90.9	78.3		
Do you feel like an effective parent?	89.7	74.9		
Child Report				
Parental Responsiveness, Mean (±SD)	2.4 (±0.7)	2.3 (±0.7)	0.95 (0.78, 1.14)	84.3 (9), <.001
Parent listens to what I say	84.1	77.2		
Parent makes me feel better	86.2	81.4		
Parent wants to hear problems	86.0	85.2		
Parent knows something is bothering me	83.5	81.9		
Parent understands how I feel	79.9	78.1		
Parental Demandingness, Mean (±SD)	2.3 (±0.5)	2.3 (±0.5)	1.06 (0.82, 1.38)	87.7 (9), <.001
Parent checks to see I do my homework	89.8	87.9		
Parent knows where I'm going	95.1	93.7		
Parent knows where I am after school	96.0	94.1		
Parent tells me what time to come home	80.5	79.1		
Parent has rules that I must follow	83.0	79.2		
Parent has rules about how I spend my time after school	63.6	63.2		
Parent asks me what I do at my friends' houses	68.0	63.6		
Parent knows what I do on weekends	89.0	80.8		
Parent checks what I am wearing	62.0	62.1		

* Percentages may not total to 100 because of rounding. Missing data were for Parental Self-Efficacy (1) and Maternal Responsiveness (10). For individual items from the parental efficacy scale, the percentage is those who responded "Most of the time" or "Almost always."

[†]OR adjusted for child age and gender, parent education, household income and clustering by school. OR and 95% CI indicate the change in the odds of ADHD diagnosis for each 1 point increase in summary score measures.

[‡]These items were reverse coded when integrated into the summary scores.