Changes in Caregiver Strain Over Time in Young Adolescents With ADHD

The Role of Oppositional and Delinquent Behavior

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Objective: The objectives of this study were to identify the relationships between caregiver strain among parents of young adolescents with ADHD and child characteristics during a 1-year period. Method: Parents of 52 middle-school-aged youth with ADHD participated in this study and completed two evaluations 1 year apart. Results: Ratings of oppositional and delinquent behavior best predicted levels of caregiver strain, and change over time did not significantly add to the equation. Patterns of change in caregiver strain indicated important individual differences. Conclusion: Oppositional, delinquent behavior was the best predictor of caregiver strain and suggests that preventing and treating these child behavior problems should be a high priority when working with young adolescents with ADHD. Given the variability in parent responses to changes in oppositional and delinquent behavior, it may also be important to address personal coping strategies for parents of youth exhibiting high rates of these behaviors. (J. of Att. Dis. 2009; 12(6) 516-524)

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Families of children with ADHD report more conflict, stress, and disorganization than families with children who do not have ADHD (DuPaul, McGoey, Eckert, & VanBrakle, 2001; Pressman et al., 2006). This family distress appears to be related to child behaviors and parent characteristics. In addition, the strain may compromise positive parenting practices. This may in turn contribute to problematic child behavior and result in a very negative cycle of family conflict and interpersonal stress (Mash & Johnston, 1983). Previous studies have reported that oppositional and defiant behavior may make the greatest contribution to parent stress (Angold et al., 1998), but these studies have taken static measures of the family system. Findings in the treatment of adults with mental disorders suggest that relative change over time leads to hope or despair that, in turn, impacts coping and strain (Irving et al., 2004). A logical extension of this research is the question of whether changes in a child’s behavior may impact parents’ level of stress and potentially impact important parenting variables and family relations. This study examines predictors of caregiver strain and the relationship between changes in child behavior over time and parents’ self-reported strain.

Association Between Caregiver Strain and Child Behavior

Children with ADHD experience a myriad of behavioral and social problems as a direct result of the inattention, hyperactivity, and impulsivity that characterize this disorder. These include failure to meet the expectations of adults, noncompliance, and exhibition of public behaviors that may be embarrassing to many parents. The effect that these children’s problems may have on their caregivers, appropriately labeled caregiver strain,
has piqued the interest of psychologists for decades. Angold and colleagues (1998) investigated various predictors of caregiver strain in a child and adolescent clinic population and found that in a sample of more than 1,000 children, the number of Diagnostic and Statistical Manual of Mental Disorders—Third Edition (DSM-III; American Psychiatric Association [APA], 1980) symptoms endorsed (of any disorder) predicted caregiver strain better than demographic variables and parental characteristics. Other studies have indicated that the symptoms of ADHD have been specifically linked to parent–reported levels of caregiver strain. (e.g., Baker, 1994; Breen & Barkley, 1988; for a review, see Johnston & Mash, 2001). For example, in a study of 200 elementary-school-aged children who were identified as having symptoms of ADHD, Bussing and colleagues (2003) found that symptoms of inattention predicted caregiver strain.

Much of the conflict and strain that occurs within families is concentrated within a parent–child interaction. Barkley, Karlsson, and Pollard (1985) reported that mothers of children with ADHD were more directive and negative and less interactive with their children in an observation setting than parents of children without ADHD. The finding of compromised parenting in these dyadic relationships has been repeatedly established (Hinshaw, Zupan, Simmel, Nigg, & Melnick, 1997; Shelton et al., 1998; Whitmore, Kramer, & Knutson, 1993). Counts, Nigg, Stawicki, Rappley, and Von Eye (2005) found that parenting was especially poor for parents of children who met criteria for the combined subtype of ADHD. These children typically display a higher number of negative symptoms and greater impairment than those with the inattentive and hyperactive subtypes. Studies by Campbell and colleagues have suggested that family adversity and stress, along with poor parenting practices, predict the continuation of hyperactivity and aggression (e.g., Pierce, Ewing, & Campbell, 1999). Thus, poor parenting practices and children’s disruptive behavior likely function as both a cause and an effect in a negative downward spiral. Finally, undesirable parenting practices have been reduced and indices of family functioning improved when children’s behavior improves in response to stimulant medication (Barkley, 1988; Schachar, Taylor, Wieselberg, Thorley, & Rutter, 1987).

Parent–child relationships in children with ADHD and comorbid ODD or CD are particularly conflict ridden. Between 25% and 75% of children with ADHD also meet the diagnostic criteria for one of these disorders (Fischer, Barkley, Smallish, & Fletcher, 2002). Comorbid ODD and CD have been linked to ineffective maternal disciplinary practices and conflict-ridden family relationships (Pfiffner, McBurnett, Rathouz, & Judice, 2005; Barkley, Anastopoulos, Guevremont, & Fletcher, 1992). Seipp and Johnston (2005) conducted a study of three groups of mothers: one group with a son with comorbid ADHD and ODD, one group with a son with ADHD only, and a third group with a son without a behavioral disorder. Their results indicate that mothers of children with comorbid ADHD and ODD were more overreactive and less responsive to their children than mothers of non-problem children. These findings suggest that oppositional and defiant behavior may be an important variable to consider when evaluating the relationship between caregiver strain and disruptive child behavior.

Differences between youth with ADHD and those without tend to diminish as children progress through their childhood years (ages 3 to 9) in terms of oppositional and defiant behaviors, as measured by child non-compliance and parental directiveness as well as parent–reported stress (Mash & Johnston, 1982, 1983). The reduction in differences as children age was primarily caused by older children with ADHD (ages 7 to 9) and their parents changing to more closely resemble mother–child dyads including children without ADHD. In spite of these changes in parent and child behaviors, the overall trend in parent–child relationships is deterioration in relations when children enter early adolescence (Steinberg & Morris, 2001). During this time there is an increase in negative feelings about interactions and the parent–child relationship becomes more distant (Larson, Richards, Moneta, Holmbeck, & Duckett, 1996). Conflict is greater in early adolescence, but as the child approaches later adolescence, evidence suggests that this conflict dissipates (for meta-analysis of pertinent studies, see Laursen, Coy, & Collins, 1998). When this increased developmental risk for parent–child conflict is coupled with increased behavioral risk for youth with ADHD, it is evident that parents of young adolescents with ADHD are in jeopardy of experiencing particularly high levels of caregiver strain.

Chronic caregiver strain may have serious consequences for parents of children and adolescents with ADHD beyond their parent–child interactions. In a study reported by Pelham and colleagues (1997), the investigators measured levels of stress and alcohol consumption in parents of children without ADHD who participated in a 20-minute interaction with a confederate child who was trained to act as either a boy without any behavior problems or a boy with a disruptive behavior disorder. Parents who interacted with the disruptive boy consumed significantly more alcohol and reported significantly more distress after the interaction than the parents who interacted with the boys who did not display disruptive behavior. What is compelling about this study is not the
acute effect of the interactions but what it implies about the potential cumulative effect of many such interactions. It is important to note that the adults in the study were not the parents of the children with whom they interacted and, therefore, not responsible for them nor did they have the emotional bond associated with the parent–child relationship. If measurable differences in stress and alcohol consumption exist as a result of one brief interaction with a disruptive child, the magnitude of strain experienced by parents who have numerous daily interactions and strong emotional ties to a disruptive child may be profound.

Investigators have acknowledged that understanding the complex relationship between caregiver strain and child behavior requires that researchers consider change over time (Johnston & Mash, 2001). In time parent–child relationships may shift a parent’s perspective about the nature of the child’s behavior problems. For example, if a socially impaired child makes a new friend, a parent may perceive him or her as improving despite the fact that the child remains seriously socially impaired. That is, relative to a situation in which the child has no friends, the parent is optimistic that change has occurred, and this may reduce the parent’s experience of strain and facilitate feelings of hope. This hypothesis is supported by research on the effects of hope on well-being. For example, in a study of 98 adults receiving outpatient clinical services for a variety of difficulties, Irving and colleagues (2004) found that higher levels of hope at baseline were associated with greater well-being, coping skills, and regulation of emotional distress. This finding and many of a similar nature (Snyder, Irving, & Anderson, 1991; Snyder, Michael, & Cheavens, 1999) suggest that strain may be alleviated if the caregiver perceives improvement and, as a result, experiences some form of hope. Conversely, a worsening of child behavior problems may lead to parental despair and an increase in caregiver strain.

A second hypothesis suggests that parents may experience a reduction in strain, regardless of any change in the child’s behavior as a result of habituation (Angold et al., 1998; Johnston & Mash, 2001). That is, parents may “get used to” the child’s problems and as a result, experience a reduction in self-reported strain. For example, when a child initially receives failing grades, a parent may be alarmed; however, after years of witnessing academic underachievement, the parent may become accustomed to this impairment, and it is no longer a source of significant strain. This type of habituation may appear as the parent giving up and disengaging. Although this disconnect might lead to a reduction in strain and serve as a short-term protective coping technique, it may have a damaging effect on the parent–child relationship in the long run.

Current Study

Although much literature has been devoted to establishing that caregivers of children with ADHD do experience heightened strain (Johnston & Mash, 2001), little is known about which areas are most troublesome for parents. Based on the previous finding that child characteristics contribute more to the prediction of parental strain than both environmental factors and parent characteristics (Angold et al., 1998), the current study sought to specifically identify which child behaviors best predict caregiver strain in parents of young adolescents with ADHD. In addition, we evaluated how changes in the severity of distressing child behaviors might impact a caregiver’s level of strain. Finally, we examined changes in caregiver strain in relation to changes in salient child behavior to investigate the validity of the hope–despair and habituation hypotheses of caregiver strain.

The parents of 52 middle-school-aged participants diagnosed with ADHD completed measures of their children’s symptoms and impairment as well as self-reported caregiver strain at two separate assessment points separated by 1 year. These children and parents were enrolled in a larger study that examined the efficacy of a school-based psychosocial treatment program for middle school students with ADHD (Evans, Serpell, Schultz, & Pastor, 2007).

Method

Participants

Participants were 52 young adolescents with ADHD between the ages of 11 and 14 years ($M = 11.76$ at the start of participation), recruited from five middle schools in the Shenandoah Valley of Virginia, and their primary caregivers. The sample was 94.1% Caucasian, 3.9% Latino, and 2% “other,” which is consistent with the predominantly rural population residing in these school districts. The final sample consisted primarily of boys (72.5%), and almost half (48.0%) of the sample lived in homes with a household income lower than $40,000, whereas fewer than 12% of the sample lived in homes with household incomes greater than $80,000. Inclusion criteria required that participants (a) meet all DSM-IV (APA, 1994) diagnostic criteria for a subtype of ADHD, (b) have an IQ equal to or greater than 80, and (c) not meet diagnostic criteria for current or previous psychotic episodes (e.g., childhood-onset schizophrenia) or pervasive developmental disorder.

The primary caregivers of these children were predominantly females (82.3%). Of these females, 67.5%
were married mothers, 27.9% were single mothers, and 4.6% were grandmothers. The male caregivers, who made up 17.6% of responding parents, identified themselves as the father of their child. The majority of the fathers (75%) were currently married to the child’s mother but considered themselves to be the primary caregiver.

Procedures

Participants were recruited from the sixth grade classes of these five schools in two consecutive school years, thus producing two cohorts. The first cohort was recruited in the fall of 2003, and the second in the fall of 2004. During the initial lab visit, trained graduate students administered the Diagnostic Interview Schedule for Children–IV (DISC-IV; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000), which is a structured interview conducted with the parent to evaluate children for ADHD and other psychiatric disorders. A licensed clinical psychologist (SWE) incorporated data from this interview and from parent and teacher behavioral ratings to determine diagnosis based on the criteria listed in the DSM-IV (APA, 1994). The diagnosis was based on the “or” criterion that indicates that endorsement of symptoms and impairment may occur on the DISC-IV or the parent and teacher ratings. The Kaufman Brief Intelligence Test (K-BIT; Kaufman & Kaufman, 1990) was administered to obtain an estimate of verbal and nonverbal intelligence, and the Wechsler Individual Achievement Tests-II (WIAT-II; Wechsler, 2002) was used to assess achievement.

All participants returned to the lab for follow-up assessments every 6 months. During these evaluations, the adolescent and their parents completed a variety of assessments. The data used in the current study were taken from the initial evaluation and the second follow-up assessment 1 year later.

Measures

Caregiver Strain Questionnaire. Completed by the primary caregiver at both assessment points, the Caregiver Strain Questionnaire (Brannan, Heflinger, & Bickman, 1997) is a 21-item self-report instrument. The respondent was asked to indicate how his or her child’s problems have affected the parents and the family during the past year. Responses were scored on a 5-point, Likert-type scale ranging from 1 (not at all a problem) to 5 (very much a problem). Measures of reliability and validity of the Caregiver Strain Questionnaire show the scale to have strong psychometric properties. Cronbach’s alpha was equal to .93, and the measure correlated appropriately with subscales on the Brief Symptom Index (BSI) and the Family Assessment Device (FAD; Brannan et al., 1997). The total score on this measure served as the criterion variable in the multiple regression analyses.

Disruptive Behavior Disorders (DBD) Rating Scale. The DBD (Pelham, Evans, Gnagy, & Greenslade, 1992) is a DSM-III-R symptom rating scale completed by the parents at both assessments. Parents were asked to rate symptoms of hyperactivity, inattention, oppositional defiance disorder (ODD) and conduct disorder (CD) as not at all present, just a little, pretty much, or very much. Ratings were scored on a scale of 0 (not at all) to 3 (very much). Scores on the hyperactivity, inattention, and CD and ODD subscales were used as the symptoms cluster predictors of caregiver strain.

Grades. Participants’ report card grades were used to calculate an overall grade point average (GPA) for each grading period. GPA ranged from 0 to 4 and was calculated based on grades in the four core subjects (science, math, history, and reading). An “A” was worth 4 points; a “B,” 3; a “C,” 2; a “D,” 1, and an “F,” 0. Grades are the feedback that parents receive about academic functioning and were used as the academic impairment predictor in these analyses.

Results

We sought first to answer the question of which symptoms and functioning variables best predict caregiver strain. To answer this question, we conducted multiple regression analyses for both the time 1 and time 2 assessments. Pedhazur (1997) offers 15:1 as a participant-to-variable ratio that ensures ample power in a multiple regression analysis. The size of the current sample (N = 52) is slightly lower than this recommendation (N = 60). Before these analyses were conducted, all variables were checked for multicollinearity. High multicollinearity was found between oppositional behavior and conduct disorder (r = .72). Per Tabachnick and Fidell (2001), these two variables were therefore combined into one variable. Because these two variables are derived from the same rating scale and are on the same metric, they were summed to form one composite variable. The new variable, ODD/CD, reflected the individual’s total severity in these areas, and scores could range from 0 to 63 based on 8 ODD items and 23 CD items (scores ranged from 0 to 3). Scatter-plot examination showed that each
The predictor possessed a linear relationship with the criterion at both assessment points, confirming the appropriateness of a linear regression model. Plotting the residuals against the predicted value upheld assumptions of normality, independence, and homoscedasticity of residuals. The variables entered into the two equations were the composite ODD/CD variable, GPA, and scores on the hyperactivity and inattention subscales of the DBD.

The multiple regression equations were statistically significant at time 1, $R^2 = .37$, CI(.27, .46), $F(4, 47) = 6.74$, $p = .001$; and time 2, $R^2 = .53$, CI(.44, .62) $F(4, 43) = 12.10$, $p < .01$. Regression coefficients and significance values are listed for these variables in Table 1. The multiple regression results indicate that combined symptoms of ODD and CD was the best predictor of caregiver strain at both assessments. For this reason, follow-up analyses focused on the relationship between ODD/CD and caregiver strain.

The second question pertained to assessing the extent to which parents’ perception of change over time in ODD/CD would add to the prediction of caregiver strain over static indices of ODD/CD. A subsequent multiple regression analysis was performed that included measures of change in ODD/CD over time. Four variables served as predictors in a multiple regression equation in which the dependent variable was caregiver strain at the second assessment. These predictors were ODD/CD at the second assessment, change in ODD/CD between assessments, the interaction between the first two variables, and caregiver strain at time 1. The change score provided a measure of whether parents’ perception of change adds to the prediction of strain over levels of ODD/CD at time 2. The interaction term was included because perceptions of change may have a different impact on caregiver strain as a function of severity of ODD/CD symptoms. Finally, to control for individual differences in the parent’s initial level of strain, caregiver strain at the initial evaluation was also entered as a predictor. These variables were centered prior to the analysis to prevent multicollinearity between the interaction and its composing variables. Subsequent multicollinearity was adequately low (VIF < 2.00). Once again, scatter plots revealed that all assumptions of linearity, normality, independence, and homoscedasticity were met. This second set of variables also significantly predicted caregiver strain at the second assessment, $R^2 = .65$, $F(4, 47) = 21.33$, $p < .01$. Regression coefficients and significance values are listed in Table 2. The results of the regression equation indicate that caregiver strain at the second assessment is a function of initial level of caregiver strain and severity of the adolescent’s ODD/CD symptoms at time 2. The change variable and interaction term were not significant, indicating that relative improvement or decline is not as important as absolute levels of ODD/CD in determining caregiver strain.

The final task in the analyses was to explore the possibility of a correspondence between any changes in strain experienced by the parent and changes in ODD/CD behavior exhibited by the child, controlling for absolute level of ODD/CD symptoms. A partial correlation controlling for absolute symptom level ($r = .27$, $p = .06$) indicated that a marginally significant linear relationship does exist between these two variables that accounts for a small portion of the variance. Data were plotted to allow us to identify parents who may be exhibiting individual coping patterns (hope/despair or habituation) and, therefore, may be weakening the relationship between change in strain and change in ODD/CD symptoms. In Figure 1, changes in caregiver strain were plotted as a function of change in ODD/CD symptoms between the two evaluations. The data in Figure 1 indicate that a large portion of parents reported levels of caregiver strain at time 2 that were within 10 points of reported levels at time 1. Reductions in strain were experienced both by parents who reported little change in child ODD/CD symptoms and by parents whose children’s symptoms decreased during the course of the year. Reductions in caregiver strain associated

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### Table 1

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$B$ (Time 1)</th>
<th>Sig. (Time 1)</th>
<th>$B$ (Time 2)</th>
<th>Sig. (Time 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>.07</td>
<td>.57</td>
<td>.11</td>
<td>.43</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>.06</td>
<td>.64</td>
<td>-.24</td>
<td>.15</td>
</tr>
<tr>
<td>ODD or CD</td>
<td>.58*</td>
<td>&lt;.01</td>
<td>.88*</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>GPA</td>
<td>.20</td>
<td>.12</td>
<td>.17</td>
<td>.17</td>
</tr>
</tbody>
</table>

Note: ODD = oppositional defiance disorder; CD = conduct disorder; GPA = grade point average.

*Significant at $\alpha = .05$ level.

### Table 2

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$B$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODD/CD</td>
<td>.997*</td>
<td>.001</td>
</tr>
<tr>
<td>Change in ODD or CD</td>
<td>.348</td>
<td>.533</td>
</tr>
<tr>
<td>Interaction</td>
<td>-.011</td>
<td>.758</td>
</tr>
<tr>
<td>Baseline strain</td>
<td>.595*</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Note: ODD = oppositional defiance disorder; CD = conduct disorder.

*Significant at $\alpha = .05$ level.
with improvements in ODD/CD may be associated with hope, whereas reductions that occur without improvement in ODD/CD may be the result of habituation. Most parents of children with substantial increases in ODD/CD symptoms (>5) reported an increase in caregiver strain and may reflect a state of despair.

Discussion

Consistent with previous studies of caregiver strain, the results of this study indicate that oppositional, defiant, and delinquent behaviors are some of the most salient stressors for parents of youth with ADHD (Barkley et al., 1992; Pfiffner et al., 2005; Seipp & Johnston, 2005). Our examination of the impact of change in ODD/CD over time on caregiver strain did not yield an additive effect over static indices of ODD/CD. Our final visual analysis of the data indicated that there appeared to be meaningful variations in the experience of strain among parents that are a function of perceived changes in the severity of ODD/CD. Hypotheses derived from these descriptive analyses set the stage for further research in this area.

Oppositional, defiant, and delinquent behavior exhibited by children with ADHD was more predictive of caregiver strain than severity of symptoms of inattention and hyperactivity and of academic impairment. Consistent with previous literature, our findings add support to the finding that defiance and delinquency are very wearing on parents. Our findings indicated that these variables were more predictive of strain at time 2 than time 1. The confidence intervals around the two $R^2$'s indicate very little overlap suggesting that this may be a meaningful difference. Because these are only two data points, it is not possible to conclude anything about trends; but it would be interesting to see whether increased prediction is a trend over time possibly because of increasing stability in both child behavior and parent strain and coping.

These findings are consistent with the emphasis on compliance training in many parent training programs. Teaching parents about the use of timeout and of other contingencies to manage noncompliant behavior has long been a major emphasis in these interventions. This set of behaviors may be even more problematic in a middle-school-aged population, like the sample used in this study, than it is for younger children. That is, as children transition into adolescence, they are increasingly disengaged from parents, and family interactions are perceived as less positive even among youth without ADHD (Larson et al., 1996). Furthermore, physical and cognitive developmental changes often contribute to a youth’s ability to successfully defy parents. These changes make parenting a child during this developmental phase challenging for most parents, and it may be a period that is particularly stressful for parents of children with ADHD.

The clinical implications of these findings are that as psychosocial treatments are being developed for children in this age range (e.g., Barkley, Edwards, Laneri, Fletcher, & Metevia, 2001; Evans et al., 2007), there needs to be a continued emphasis on managing oppositional, defiant, and delinquent behavior. In addition, interventions targeting this population may also include teaching parents how to manage and cope with their young teen’s problematic path toward independence. Helping parents maintain active involvement with their child while practicing healthy and effective coping strategies could be a valuable goal for working with parents of young adolescents with ADHD. Given the strong relationship between ODD/CD and strain, it may be that parents may not view a treatment as effective unless it results in a meaningful reduction in some of the distress related to these challenging child behaviors. Also, the finding that absolute levels of ODD/CD-related behaviors contribute more to caregiver strain than does relative improvement indicates the importance of developing methods of prevention for this population. By preventing high levels of ODD/CD behaviors in the first place, caregiver strain may remain at low levels.

The data displayed in Figure 1 indicate that a parent’s likelihood of experiencing a reduction in strain if their child experiences an increase in ODD/CD symptoms was very small. Conversely, if parents reported a decrease in their child’s ODD/CD symptoms, they were
unlikely to experience a notable increase in caregiver strain and may even have reported a reduction in strain. Specifically, some parents of children rated as decreasing in a combined ODD/CD score over the course of a year reported meaningful reductions in caregiver strain. This association between improved behavior and reduced strain is consistent with a parent experiencing hope. Other parents who reported no noticeable change or a slight increase in their child’s combined ODD/CD also reported a decrease in strain. This finding is consistent with the habituation hypothesis. Hope and habituation are two very different types of reduction in strain. Hope can be very motivating and encourages further investment. Habituation may take the form of adaptive coping that may actually improve the quality of the parent–child relationship. Habituation may also take the form of disengagement and parents’ withdrawal of attention and investment in the child’s success. This disengagement is a common pattern that we have observed when working with these youth and their parents. Still other parents reported an increase in ODD/CD symptoms as well as an increase in strain, and this is consistent with despair associated with a perceived worsening of a stressor. These patterns of responding certainly do not account for all participants, and the main findings may disguise these and other patterns of coping with oppositional, defiant, and delinquent behavior from their young adolescent children with ADHD. Studies with large enough samples to identify and distinguish these patterns are needed to help inform treatment that may need to be individualized based on perceptions of severity of child behavior and parent coping responses.

Limitations and Future Directions

There are many limitations to this study including sample size, which restricts us from developing and evaluating models of how variables such as parenting, strain, oppositional behavior, gender, and parental coping and affective symptoms may interact and change over time. Furthermore, these data were collected at two time points and additional time points are important for identifying trends over time. Findings are also limited to a population of 11- to 14-year-old children diagnosed with ADHD, hence gathering data from a nondiagnosed sample would help to add a normative sense to these findings and inform conclusions. In addition, although our sample size precluded their examination, it is important that future work assess the extent to which other family-level variables are important in the prediction of caregiver strain. Families with children who have mental health problems are often characterized by multiple stressors, and variables such as family structure (single-parent versus two-parent households), a lack of social support, low socioeconomic status, marital discord, and parental mood disturbance may all be particularly important to examine.

Advances in measurement would also aid this line of research. Parental strain appears to frequently vary based on the most recent interactions with children. There may be an underlying chronic level of caregiver strain around which daily strain fluctuates. The ability to identify and distinguish these two types of strain may increase the reliability of our measurement. Improvements in measurement may also eliminate the need to use the same source (parent ratings) to measure both child behavior and parent strain. On one hand, it is the parents’ perception of their child’s behavior that is most likely to influence their own strain so there is rationale for using parent self-report to measure both. On the other hand, parents completing both assessments in the same assessment session may artificially inflate reported levels of strain, as rating scales often prime parents to focus on their child’s problems. Advances in assessment of these constructs could sharpen the focus on the relationship between these variables and others and may be necessary to confidently identify the various patterns of coping with static levels and indices of change in children’s oppositional, defiant, and delinquent behavior.

In spite of these limitations, this study provides data on the association between caregiver strain and child behavior during a 1-year period of time for a sample that is older than samples typically used when studying these issues. Our findings add data to the field that emphasize the association between parental strain and child behavior. Oppositional and delinquent behaviors were more closely associated with strain than the academic functioning of the child and levels of ADHD symptoms. Interventions and prevention methods targeting this population will certainly have to address issues of compliance and defiance and/or parental coping with noncompliance to be perceived as effective for families of these youth. Finally, individual variation in parental coping strategies such as hope, habituation, and despair is an area that warrants considerable additional study.

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