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Implications of Parental Affiliate Stigma in Families of Children with ADHD

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Abstract

Objective—This study examined parents' perceptions/awareness and internalization of public courtesy stigma (affiliate stigma) about their children's inattentive and hyperactive/impulsive symptoms, and associations between parental affiliate stigma, parental negativity expressed toward the child, and child social functioning.

Method—Participants were families of 63 children (ages 6–10; 42 boys) with Attention-Deficit/Hyperactivity Disorder (ADHD), assessed in a cross-sectional design.

Results—After statistical control of children's severity of inattentive and hyperactive/impulsive symptoms (as reported by parents and teachers), parents' self-reports of greater affiliate stigma were associated with more observed negative parenting. The associations between high parental affiliate stigma and children's poorer adult informant-rated social skills and greater observed aggression were partially mediated by increased parental negativity. As well, the positive association between children's adult informant-rated aggressive behavior and parental negativity was partially mediated by parents' increased affiliate stigma.

Conclusion—Parental affiliate stigma about their children's inattentive and hyperactive/impulsive symptoms may have negative ramifications for parent-child interactions and children's social functioning. Clinical implications for parent training interventions are discussed.

Keywords

affiliate stigma; courtesy stigma; ADHD; parenting; social functioning

Considerable research documents the prevalence of public stigma directed against those with mental illness (Hinshaw & Stier, 2008) – stigma which may be perceived and internalized by individuals with mental illness with detrimental results for wellbeing (Corrigan & Rao, 2012). Less studied is public stigma resulting because of a person's *association with* someone with mental illness, known as “courtesy stigma” (e.g., other adults thinking poorly of a parent of a child with mental illness). This manuscript focuses on the potential ramifications when individuals perceive and internalize courtesy stigma, referred to as “affiliate stigma” (e.g., the parent of a child with mental illness feeling shame and avoiding social contact as a result) (Ali, Hassiotis, Strydom, & King, 2012; Mak & Cheung, 2008).

Courtesy and affiliate stigma are relevant for parents of children with Attention-Deficit/Hyperactivity Disorder (ADHD). The existence of courtesy stigma is documented by findings that other adults believe parents have caused their children's ADHD through suboptimal parenting practices such as lack of discipline or inappropriate diet (Norris & Lloyd, 2000; Olaniyan et al., 2007). Recent studies suggest that many parents perceive and internalize this courtesy stigma; indeed, the perception that other adults make negative judgments about their parenting when their children display ADHD symptoms – regardless of whether this perception is real or imagined – is a primary contributor to parents' feelings of shame and embarrassment (dosReis, Barksdale, Sherman, Maloney, & Charach, 2012; Norvilitis, Scime, & Lee, 2002). Whereas other adults' assumptions that the child has received inadequate parenting may be reduced if they assume ADHD to have a biological basis, it may also lead to beliefs that the child and parent are genetically flawed and that their condition is untreatable (Lebowitz, Rosenthal, & Ahn, in press). Therefore, regardless of whether ADHD is ascribed to suboptimal parenting or to biological causes, courtesy stigma against parents of children with ADHD appears to exist, and may lead parents to perceive and internalize these experiences and develop affiliate stigma.

To date, the few studies that have examined the implications of parental affiliate stigma have focused on the effects of affiliate stigma on parents' own wellbeing. Consistent with the model promoted by Mak and Cheung (2008) which posits that perception/awareness and internalization of courtesy stigma results in affective (e.g., shame, embarrassment), cognitive (e.g., worry, self-blame), and behavioral consequences (e.g., avoiding social contact), Norvilitis et al. (2002) reported that affiliate stigma in mothers of children with ADHD contributed to mothers' increased depression and anxiety while Mak and Cheung (2008) found that affiliate stigma among caregivers of children with mental disorders was positively associated with caregivers' feelings of stress and subjective burden. Other studies have suggested that as a result of affiliate stigma, parents of children with ADHD report socially isolating themselves from colleagues, friends, and family members (dosReis, et al., 2012; Koro-Ljungberg & Bussing, 2009).

To our knowledge, no studies have examined the consequences of parental affiliate stigma on parents' interactions with their children. Unlike stigma directed toward the individual with mental illness, affiliate stigma by definition involves two people. The consequences of affiliate stigma may extend beyond the negative effects for the individual experiencing the stigma and into the relationship with the other person who engendered the stigma for the first individual. Goffman (1963) emphasized that our natural reactions to experiencing

affiliate stigma include distancing ourselves from the person who has engendered the stigma, or trying to conceal that person's condition from others. In the case of parents of children with ADHD, we speculate that affiliate stigma may lead parents to become more irritable with their children, and to respond more critically/harshly when their children display ADHD symptoms. This is because parents experiencing affiliate stigma may be upset at their children for engendering the stigma. Parents experiencing affiliate stigma may feel urgency to conceal or "overcorrect" their children's symptoms because they feel ashamed and perceive their children's symptoms as having direct negative implications for how others view them as parents.

If affiliate stigma leads parents to express more criticism/irritability in their interactions with their children, this may in turn have implications for children, as recent work underscores the importance of parental behaviors for encouraging social competence. Parents who interact with their children in a positive manner contribute to their children's good social functioning, possibly because children model their parents' behaviors with their peers, or because children are more receptive to parental guidance about their social behavior when they have a good relationship with that parent (Mikami, Jack, Emeh, & Stephens, 2010). These associations between parental behaviors and child social competence may in fact be stronger for children with ADHD relative to typically-developing youth (Hinshaw, Zupan, Simmel, Nigg, & Melnick, 1997; Mikami, Jack, et al., 2010). Parents who display negativity resulting from affiliate stigma may therefore exacerbate or fail to improve children's poor social functioning.

The current study assessed the relationships between parental affiliate stigma about children's ADHD symptoms, parental negativity, and child social functioning. Our primary hypothesis was that after controlling for children's ADHD symptom severity, greater parental affiliate stigma would predict more parental negativity toward the child.

As a secondary aim, we wished to explore potential downstream effects of affiliate stigma on children. Thus, our secondary hypothesis was that parental affiliate stigma would be associated with children's poorer social functioning, and that this relationship would be mediated by parental negativity. To index social functioning, we selected measures of child social skills to represent the prosocial behaviors children display in social situations. We also selected two types of negative behaviors that children display in social situations, an externalizing option (aggressive social behavior) and an internalizing option (social withdrawal). Notably, social skills, aggressive social behavior, and social withdrawal all predict peers' acceptance, making these measures pertinent to an assessment of social competence (Gifford-Smith & Brownell, 2003).

Method

Participants

Participants were 63 children with ADHD (42 boys, 6–10 years old, mean = 8.2 years), and the parent/guardian most involved in raising the child (59 women, 25–63 years old, mean = 38.4 years). Most (81%) children were White, 9% were African American, 8% were mixed, and 2% were Asian American. Median yearly family income was \$71,000 (range: less than

\$10,000 to greater than \$150,000). Demographics reflected the suburban and rural community in the southeastern United States where the data were collected.

We recruited families via pediatricians, schools, and clinics. Children met *DSM-IV-TR* criteria for ADHD-Combined Type ($n = 47$) or ADHD-Inattentive Type ($n = 16$) on parent and teacher ratings using the Child Symptom Inventory (CSI; Gadow & Sprafkin, 2002), and on a clinical interview with the parent, the Kiddie-Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997). Children with the Hyperactive-Impulsive Type were excluded because this subtype is most relevant for preschoolers, and many children with this subtype become ADHD-C by school age (Lahey, Pelham, Loney, Lee, & Willcutt, 2005). We included children with comorbid Oppositional Defiant Disorder (ODD; $n = 21$), Conduct Disorder (CD; $n = 0$), or depressive and anxiety disorders ($n = 11$). Comorbid disorders were diagnosed based on parent and teacher ratings on the Child Behavior Checklist (CBC; Achenbach & Rescorla, 2001) and confirmed on the K-SADS. Children taking a stable regimen of psychotropic medication ($n = 40$) were included. Exclusion criteria were pervasive developmental disorder diagnoses, Full Scale IQ below 70, or Verbal IQ below 75. See Mikami, Jack, et al. (2010) for further details about the sample.

Procedure

A university review board approved all procedures, and parents and teachers provided informed consent while children assented. Parents and teachers independently rated children on the 18 *DSM-IV-TR* symptoms of ADHD using the CSI over the phone or via fax. Families of children who met cutoffs on the CSI were invited to a lab visit during which ADHD diagnosis was confirmed using the K-SADS and the child's IQ was assessed with the Wechsler Intelligence Scale for Children-4th edition (Wechsler, 2003). At this lab visit, parents completed questionnaires about their affiliate stigma and their child's social functioning. Teachers completed questionnaires about the child's social functioning via mail.

Families attended a second lab visit where children participated in playgroups comprised of four previously unacquainted children—two children from the ADHD sample and two age- and sex-matched children without ADHD (described in Mikami, Jack, et al., 2010). Playgroups lasted 40 minutes and involved structured and unstructured free play between the children; parents observed these activities. A 4-minute private interaction between each parent and child occurred after the playgroup, during which parents were instructed to talk to their child about how the playgroup went. For more information regarding the playgroup and parent-child interaction procedures, see Mikami, Jack, et al. (2010). Families were then randomized to receive a behavioral intervention (Mikami, Lerner, Griggs, McGrath, & Calhoun, 2010), but all measures in the current study were collected at baseline before intervention began.

Measures

Child ADHD symptom severity—Using the CSI (Gadow & Sprafkin, 2002), parents and teachers rated children on the 18 *DSM-IV-TR* symptoms of ADHD (nine symptoms of

inattention and nine symptoms of hyperactivity/impulsivity). Each symptom was rated on a 4-point metric (0 = *never*; 3 = *very often*). Internal consistency in our sample was .85 for parent-rated inattention, .86 for teacher-rated inattention, .90 for parent-rated hyperactivity/impulsivity, and .91 for teacher-rated hyperactivity/impulsivity. We calculated each child's mean score on parent-rated inattention symptoms and the mean score on parent-rated hyperactivity/impulsivity symptoms, and repeated this process for the teacher ratings.

Parental affiliate stigma—We used an affiliate stigma questionnaire adapted from Mak and Cheung (2008) to be specific to ADHD. Parents completed five items¹ each answered on a 5-point metric (1 = *not at all*; 5 = *very much*). The mean of all items was taken as the total score, with higher scores indicating greater stigma. Internal consistency in our sample was .83, and factor analyses on these items suggested a single factor (eigenvalue = 2.97; all other eigenvalues < 1.0).

Parental negativity—Trained observers, kept unaware of child diagnoses and study hypotheses, coded the parent-child interactions that occurred during the lab visit. Half of the videos were randomly selected to be coded by two observers to assess inter-rater reliability via calculation of an intra-class correlation (ICC (1,2)). Coders recorded the extent to which the parent expressed disparagement, criticism, or contempt toward the child in three possible ways: (a) the parent verbally expressed displeasure with the child's character (ICC = .83); (b) the parent verbally expressed displeasure with the child's behavior (ICC = .83); (c) the parent appeared annoyed at or irritated with the child (ICC = .82). Each of these was coded on a 0–3 scale (0 = *absence*; 3 = *substantial display of behavior, strongly characterizes parent*). A composite score indicating parental negativity was created from the mean of ratings received on the three codes.

Child social skills—Parents and teachers independently completed the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) which is a widely-used scale with strong normative data. Parents and teachers rated the child's social skills in common interpersonal situations (sample item: Accepts friends' ideas for playing). The parent version contains 38 items and the teacher version contains 30 items. Each item was scored on a 3-point metric (1 = *never*; 3 = *very often*). Internal consistency in the norming sample was .87 for the parent version and .94 for the teacher version. For each child, the total social skills score was calculated and converted into a standard score based on age and sex norms.

Child aggressive social behavior—Parents and teachers independently completed the CBC (Achenbach & Rescorla, 2001) narrow-band Aggressive Behavior subscale to measure the child's aggressive behaviors in social situations. The parent form contains 18 items and the teacher form contains 20 items (sample item: Cruelty, bullying, or mean to others), all

¹The five items contained in our affiliate stigma questionnaire are as follows: (a) Are you ever embarrassed by your child's inattentive or hyperactive/impulsive behaviors; (b) Do you worry that others view you as a "bad parent" because of your child's inattentive or hyperactive/impulsive behaviors; (c) Do you ever worry that, as a parent, you should have prevented your child's inattentive or hyperactive/impulsive behaviors; (d) Does embarrassment about your child's inattentive or hyperactive/impulsive behaviors ever decrease your likelihood of pursuing social relationships with other adults; (e) Does embarrassment about your child's inattentive or hyperactive/impulsive behaviors ever decrease your likelihood of pursuing social interactions for your child with other children? In line with the conceptualization of Mak and Cheung (2008), this scale assesses the affective (item a), cognitive (items b and c), and behavioral (items d and e) components of affiliate stigma.

rated using a 3-point metric (0 = *not true*; 2 = *very true*). The CBC is commonly used and has strong psychometric properties (Achenbach & Rescorla, 2001). Internal consistency in the norming sample was .94 for the parent version and .95 for the teacher version. Each child's raw score was computed and converted to a standard score based on age and sex norms.

During the lab playgroup, trained observers evaluated the extent to which each child was displaying verbal, physical, or relational aggression toward peers. Aggressive behavior was coded on a 4-point metric (0 = *absence*; 3 = *substantial display of behavior, strongly characterizes child*). Half of the videos were randomly selected to be coded by two observers to assess inter-rater reliability; ICC = .66.

Child social withdrawal—This was assessed using parent and teacher reports on the Withdrawn/Depressed narrow-band subscale of the CBC (Achenbach & Rescorla, 2001). The parent and teacher versions each contain eight items (sample item: Would rather be alone than with others), rated on the same 3-point metric as the Aggressive Behavior subscale. Internal consistency in the norming sample was .80 for the parent version and .81 for the teacher version. Each child's raw score was converted to a standard score.

Results

Descriptive Statistics

We used multiple imputation to replace missing values on the following variables: parental negativity ($n = 7$), observed aggressive behavior ($n = 3$), affiliate stigma ($n = 2$), SSRS-parent ($n = 1$). Inspection suggested a non-monotone pattern of missing data, so a fully conditional specification (iterative Markov chain Monte Carlo method) was used to create 10 imputed values, the pooled average of which were used in data analyses.

Table 1 presents descriptive statistics of study measures. Study variables were not significantly skewed. As well, no variable had any value more than ± 3.0 SDs from the mean and there were no correlations (all $ps > .10$) between any measure and family income.

We wished to limit the number of outcome variables tested to reduce the probability of Type 1 error. Correlations (Table 2) supported the creation of three composite scores from the mean of parent and teacher standard scores on: (a) the SSRS; (b) the CBC Aggressive Behavior subscale; and (c) the CBC Withdrawn/Depressed Behavior subscale. Observed aggressive behavior was uncorrelated with the parent and teacher reports, so this was retained as a separate outcome variable. Regarding the predictor measures, although the correlation between parent and teacher ratings of hyperactivity/impulsivity was significant, the correlation between parent and teacher ratings of inattention was not (Table 2). Therefore, we left these as separate variables.

Affiliate Stigma Predicts Parental Negativity

We tested our primary hypothesis using hierarchical multiple regression, with parental negativity as the criterion variable. On Step 1, we entered parent and teacher ratings of children's inattention and hyperactivity/impulsivity. On Step 2, we entered the measure of

parental affiliate stigma. Table 3 displays findings that, consistent with our hypothesis, affiliate stigma predicted more parental negativity after statistical control of children's ADHD symptom severity.

Parental Negativity Mediates Relationship between Affiliate Stigma and Social Functioning

We tested our mediational hypotheses using hierarchical multiple regression analyses following the steps of Baron and Kenny (1986); see Figure 1. The previous regression established the first component (path a) of the mediational model, that affiliate stigma incrementally predicted more parental negativity above the contribution of children's ADHD symptomatology. Next, after statistical control of ADHD symptom severity and parental affiliate stigma at Step 1, we tested the significance of parental negativity at Step 2 as a predictor of each of the four criterion measures of child social functioning (path b). Finally, we compared the significance of parental affiliate stigma in predicting child social functioning after controlling for ADHD symptom severity (path c) to the significance of parental affiliate stigma in predicting child social functioning after controlling for ADHD symptom severity and parental negativity (path c') using bootstrapping with 5000 resamples (Preacher & Hayes, 2008). Conditions for mediation were met if paths a and b were significant, path c' appeared reduced in magnitude relative to path c, and the indirect effect yielded a bias corrected confidence interval that did not include zero; note that it is argued that path c need not be significant in order for mediation to be present, if all other criteria are met (Preacher & Hayes, 2008).²

Figure 1 displays findings that greater parental affiliate stigma made incremental contributions to predicting more parental negativity (path a) as well as poorer social functioning on most criterion measures (path c), with the exception of observed aggressive behavior. For the criterion measures of adult informant-rated social skills and observed aggressive behavior, parental negativity significantly predicted these outcomes (path b), the relationship between affiliate stigma and these outcomes was reduced in magnitude once parental negativity was accounted for (path c'), and bootstrapping confirmed the significance of the indirect effect. Therefore, conditions for mediation were met. Conditions for mediation were not met for the criterion measures of adult informant-rated aggressive behavior or social withdrawal.

Alternate Pathways

Because the current study used a cross-sectional, non-experimental design, we recognized the possibility that children with poorer social functioning may elicit more parental negativity, mediated by increased parental affiliate stigma. Figure 2 displays findings that the conditions for mediation were met in this direction when adult-informant rated aggressive behavior was used to predict parental negativity (mediated by affiliate stigma). Conditions for mediation were not met for the other social functioning variables.

²Because children were nested in playgroups for the criterion measure of observed aggressive behavior, we considered whether analyses for this dependent variable should be conducted using multilevel modeling. However, the ICC (estimate of the proportion of variance at the playgroup level) in an unconditional model was .10, which is moderately low. As well, we achieve the same results (in terms of direction of effects and whether or not the finding is statistically significant) regardless of whether or not multilevel modeling is used. Therefore, for the sake of simplicity we have chosen to omit the use of multilevel modeling.

Comorbidities

We chose to control for children's ADHD symptoms and not comorbid conditions because the affiliate stigma questions were specific to children's inattention and hyperactivity/impulsivity. However, parents may not be able to distinguish between stigma arising from their children's ADHD versus comorbid problems. When we reconducted all analyses with statistical control of ODD diagnosis and depressive/anxiety disorder diagnosis, all originally significant results remained, and no new results emerged as significant.³

Discussion

This study found that after statistical control of children's severity of ADHD symptoms, greater affiliate stigma in parents predicted more parental negativity. As well, parental affiliate stigma was associated with children having poorer adult informant-rated social skills and more adult informant-rated aggressive social behavior and social withdrawal. Parental negativity partially mediated the associations between parental affiliate stigma and children's adult-informant rated social skills as well as children's observed aggressive behavior. However, parental affiliate stigma partially mediated the association between adult-informant rated aggressive behavior and parental negativity.

Taken together, results confirm that variability exists among parents of children with ADHD in affiliate stigma about their children's condition. Additionally, results expand the stigma literature by suggesting that the implications of affiliate stigma may extend beyond the detrimental effects to the person experiencing the stigma (e.g., the parent), to include negative ramifications for the relationship between the parent and the individual who has engendered the affiliate stigma (e.g., the child).

These results also expand the parenting literature by suggesting that parental negativity may relate to parents' perceptions that others think poorly of them because of their child's behavior and internalization of these perceptions. Future research might examine relationships between parental affiliate stigma and other known predictors of parental negativity in families of children with ADHD such as parental depression and attributions for child behavior (Johnston & Mash, 2001). For instance, parents with depression may be prone to affiliate stigma because they have self-blaming cognitions. As well, parents experiencing affiliate stigma may be likely to make attributions that their children's symptoms must be controllable by parenting, which could exacerbate parents' urgency to correct their children.

One issue in our study is that it is unclear the extent to which our affiliate stigma questionnaire assesses parents' perceptions of courtesy stigma (e.g., parents are aware that

³Because we recognized that parents' negative attitudes about ADHD in general may also account for the findings obtained herein, we considered parents' reports on the Community Attitudes toward the Mentally Ill inventory (CAMI; Taylor & Dear, 1981), modified to be specific to cognitive attitudes about ADHD. The CAMI assesses the extent to which individuals self-report negative beliefs about the nature of ADHD and endorse beliefs that individuals with ADHD should be treated differently from everyone else. This scale has 12 items (sample item: One of the main causes of ADHD is a lack of self-discipline and will power), answered on a 5-point metric (1 = *strongly agree*; 5 = *strongly disagree*). Alpha in our sample was .68. Although parents' negative attitudes toward ADHD on the CAMI were positively correlated with their affiliate stigma, ($r = .27, p = .033$) when we reconducted all analyses with statistical control of CAMI scores, all previous results remained the same in direction and significance and no new results emerged.

others hold stigmatizing attitudes against them) versus parents' internalization of these perceptions (e.g., parents agree with others' stigmatizing attitudes and apply these attitudes to the self). We adapted our questionnaire from Mak and Cheung (2008), who posit that internalization of courtesy stigma is displayed in the items measuring affective (shame, embarrassment), cognitive (worry about poor competence), and behavioral (avoiding social contact) ramifications of others' stigmatizing attitudes. However, we acknowledge that our questionnaire items do not directly assess parents' negative beliefs about themselves. This distinction is central to the stage model proposed by Corrigan and Rao (2012) regarding how public stigma is internalized, whereby individuals progress from being aware of the stereotypes held by the public, agreeing with them, and then applying them to the self.

Another limitation of this study is the cross-sectional, correlational design, which makes it impossible to determine the direction of effects (Maxwell & Cole, 2007). Results suggested partial support for dual pathways: (a) that the relationship between affiliate stigma and some social functioning measures is mediated by parental negativity; and (b) that the relationship between some social functioning measures and parental negativity is mediated by affiliate stigma. Parental affiliate stigma may operate in a vicious cycle with child problem behaviors, such that affiliate stigma impairs the parenting behaviors needed to improve the child's functioning, and the persistence (or exacerbation) of child problem behavior intensifies parents' affiliate stigma and parental negativity. Future work would also benefit from examining ramifications of parents' affiliate stigma in children other than social functioning, such as children's depression or loneliness, or children's likelihood for internalizing stigma themselves.

Further, our questionnaire asked about affiliate stigma regarding children's inattentive and hyperactive/impulsive behaviors together, yet the bivariate correlations in our sample were largest between stigma and hyperactive/impulsive symptoms. Future work might examine the extent to which parents experience different amounts of affiliate stigma for inattentive versus hyperactive/impulsive symptoms, as well as explore the affiliate stigma parents experience regarding common comorbidities with ADHD, such as ODD. A final limitation is that, although the current study is exploratory and we used composite scores for dependent variables to reduce the number of analyses conducted whenever possible, we did not include any control for Type 1 error. Nonetheless, this study has strengths such as the use of parent report, teacher report, and observations to assess study variables. Another strength is the rigorous clinical assessment of ADHD.

Our results have implications for practitioners of clinical child psychology. Because parents experiencing affiliate stigma may be less likely to draw on support systems or to seek treatment (Hinshaw & Stier, 2008), this study underscores the importance of clinicians conducting sensitive outreach efforts to connect with the families who may be the most in need of services. Also, given that behavioral parent training is a common intervention aimed at reducing parental negativity in families of children with ADHD (Johnston & Mash, 2001), including activities in parent training to increase parents' stigma resistance (Thoits, 2011) may enhance the efficacy of parent training on this goal.

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References

- Achenbach, TM.; Rescorla, LA. Manual for the ASEBA School-Age Forms & Profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families; 2001.
- Ali A, Hassiotis A, Strydom A, King M. Self stigma in people with intellectual disabilities and courtesy stigma in family carers: A systematic review. *Research in Developmental Disabilities*. 2012; 33(6):2122–2140. [PubMed: 22784823]
- Baron RM, Kenny DA. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 1986; 51(6):1173–1182.10.1037/0022-3514.51.6.1173 [PubMed: 3806354]
- Corrigan PW, Rao D. On the self-stigma of mental illness: stages, disclosure, and strategies for change. *Canadian Journal of Psychiatry*. 2012; 57(8):464–469.
- dosReis S, Barksdale CL, Sherman A, Maloney K, Charach A. Stigmatizing experiences of parents of children with a new diagnosis of ADHD. *Psychiatric Services*. 2012; 61(8):811–816.10.1176/appi.ps.61.8.811 [PubMed: 20675840]
- Gadow, KD.; Sprafkin, J. Child Symptom Inventory 4: Screening and Norms Manual. Stony Brook, NY: Checkmate Plus; 2002.
- Gifford-Smith ME, Brownell CA. Childhood peer relationships: Social acceptance, friendships, and peer networks. *Journal of School Psychology*. 2003; 41:235–284.
- Gresham, FM.; Elliott, SN. Social Skills Rating System. Circle Pines, MN: Assistance Service; 1990.
- Hinshaw SP, Stier A. Stigma as related to mental disorders. *Annual Review of Clinical Psychology*. 2008; 4(1):367–393.10.1146/annurev.clinpsy.4.022007.141245
- Hinshaw SP, Zupan BA, Simmel C, Nigg JT, Melnick S. Peer status in boys with and without attention-deficit hyperactivity disorder: Predictions from overt and covert antisocial behavior, social isolation, and authoritative parenting beliefs. *Child Development*. 1997; 68(5):880–896.10.1111/j.1467-8624.1997.tb01968.x
- Johnston C, Mash E. Families of children with attention-deficit/hyperactivity disorder: Review and recommendations for future research. *Clinical Child and Family Psychology Review*. 2001; 4(3): 183–207.10.1023/a:1017592030434 [PubMed: 11783738]
- Kaufman J, Birmaher B, Brent D, Rao UMA, Flynn C, Moreci P, Ryan N. Schedule for affective disorders and schizophrenia for school-age children-present and lifetime version (K-SADS-PL): Initial reliability and validity data. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1997; 36(7):980–988.10.1097/00004583-199707000-00021 [PubMed: 9204677]
- Koro-Ljungberg M, Bussing R. The management of courtesy stigma in the lives of families with teenagers with ADHD. *Journal of Family Issues*. 2009; 30(9):1175–1200.10.1177/0192513x09333707
- Lahey BB, Pelham WE, Loney J, Lee SS, Willcutt E. Instability of the DSM-IV subtypes of ADHD from preschool through elementary school. *Archives of General Psychiatry*. 2005; 62(8):896–902.10.1001/archpsyc.62.8.896 [PubMed: 16061767]
- Lebowitz MS, Rosenthal JE, Ahn W. Effects of biological versus psychosocial explanations on stigmatization of children with ADHD. *Journal of Attention Disorders*. (in press). 10.1177/1087054712469255
- Mak WWS, Cheung RYM. Affiliate stigma among caregivers of people with intellectual disability or mental illness. *Journal of Applied Research in Intellectual Disabilities*. 2008; 21(6):532–545.10.1111/j.1468-3148.2008.00426.x
- Maxwell SE, Cole DA. Bias in cross-sectional analyses of longitudinal mediation. *Psychological Methods*. 2007; 12(1):23–44.10.1037/1082-989X.12.1.23 [PubMed: 17402810]

- Mikami AY, Jack A, Emeh CC, Stephens HF. Parental influence on children with attention-deficit/hyperactivity disorder: I. Relationships between parent behaviors and child peer status. *Journal of Abnormal Child Psychology*. 2010; 38(6):721–736.10.1007/s10802-010-9393-2 [PubMed: 20339912]
- Mikami AY, Lerner MD, Griggs MS, McGrath A, Calhoun CD. Parental influence on children with attention-deficit/hyperactivity disorder: II. Results of a pilot intervention training parents as friendship coaches for children. *Journal of Abnormal Child Psychology*. 2010; 38(6):737–749.10.1007/s10802-010-9403-4 [PubMed: 20339911]
- Norris C, Lloyd G. Parents, professionals and ADHD: what the papers say. *European Journal of Special Needs Education*. 2000; 15(2):123–137.10.1080/088562500361565
- Norvilitis JM, Scime M, Lee JS. Courtesy stigma in mothers of children with Attention-Deficit/Hyperactivity Disorder: A preliminary investigation. *Journal of Attention Disorders*. 2002; 6(2): 61–68.10.1177/108705470200600202 [PubMed: 12142862]
- Olaniyan O, dosReis S, Garriett V, Mychailyszyn MP, Anixt J, Rowe PC, Cheng TL. Community perspectives of childhood behavioral problems and ADHD among African American parents. *Ambulatory Pediatrics*. 2007; 7(3):226–231.10.1016/j.ambp.2007.02.002 [PubMed: 17512883]
- Preacher KJ, Hayes AF. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*. 2008; 40(3):879–891.10.3758/BRM.40.3.879 [PubMed: 18697684]
- Taylor SM, Dear MJ. Scaling community attitudes toward the mentally ill. *Schizophrenia Bulletin*. 1981; 7(2):225–240. [PubMed: 7280561]
- Thoits PA. Resisting the stigma of mental illness. *Social Psychology Quarterly*. 2011; 74(1):6–28.10.1177/0190272511398019
- Wechsler, D. *Manual for the Wechsler Intelligence Scale for Children-Fourth Edition (WISC-IV)*. New York: Psychological Corporation/Harcourt Brace; 2003.

Figure 1.

Parental Negativity Mediates Relationship between Affiliate Stigma and Social Functioning

Note. All models control for parent and teacher rated inattention and hyperactivity/impulsivity.

^aAdult informant rating of child's social functioning

Figure 2.
Mediation Analyses for Alternate Pathways

Note. All models control for parent and teacher rated inattention and hyperactivity/impulsivity

^aAdult informant rating of child's social functioning

Table 1

Descriptive Statistics of Primary Study Variables

Measure	<i>M</i>	<i>SD</i>	Skewness
1. Parental affiliate stigma	2.49	1.07	.06
2. Parental negativity	.73	.69	1.22
3. SSRS (p)	83.87	14.41	.37
4. SSRS (t)	86.70	11.22	-.32
5. CBC aggressive behavior (p)	62.90	10.27	.94
6. CBC aggressive behavior (t)	61.73	8.10	.54
7. Observed aggressive behavior	.57	.82	1.30
8. CBC withdrawn (p)	58.05	8.30	1.07
9. CBC withdrawn (t)	57.17	7.72	1.05
10. Inattention symptoms (p)	2.09	.58	-.95
11. Inattention symptoms (t)	1.75	.60	.08
12. Hyperactivity/impulsivity symptoms (p)	1.83	.76	-.41
13. Hyperactivity/impulsivity symptoms (t)	1.46	.83	-.17

Note. (p) = Parent-rated; (t) = Teacher-rated; SSRS = Social Skills Rating System; CBC = Child Behavior Checklist

Table 2

Correlation Matrix of Primary Study Variables

Measure	2	3	4	5	6	7	8	9	10	11	12	13
1. Parental affiliate stigma	.28*	-.41**	-.38**	.39**	.36**	.20	.28*	.36**	.05	.01	.28*	.22
2. Parental negativity	-	-.36**	-.24	.03	.27*	.62**	.12	.28*	-.57**	.11	-.14	.22
3. SSRS (p)		-	.32*	-.43**	-.18	-.17	-.30*	-.23	-.003	-.08	-.19	-.05
4. SSRS (t)			-	-.21	-.51**	-.17	-.06	-.31*	-.008	-.34**	-.15	-.32*
5. CBC aggressive behavior (p)				-	.33**	-.03	.53**	.02	.17	.10	.47**	.28*
6. CBC aggressive behavior (t)					-	.12	.14	.04	.03	.34**	.37**	.58**
7. Observed aggressive behavior						-	.04	.15	-.16	.02	.15	.19
8. CBC withdrawn (p)							-	.31*	.03	-.13	.01	-.04
9. CBC withdrawn (t)								-	-.11	.22	-.27*	-.11
10. Inattention symptoms (p)									-	.03	.47**	.01
11. Inattention symptoms (t)										-	-.01	.56**
12. Hyperactivity/impulsivity symptoms (p)											-	.28*
13. Hyperactivity/impulsivity symptoms (t)												-

Note. (p) = Parent-rated; (t) = Teacher-rated; SSRS = Social Skills Rating System; CBC = Child Behavior Checklist

*
p < .05.

**
p < .01.

Table 3

Parental Affiliate Stigma Predicts Parental Negativity

Predictor	Parental Negativity	
	R^2	β
Step 1	.38**	
Inattention symptoms (p)		-.62**
Inattention symptoms (t)		.02
Hyperactivity/impulsivity symptoms (p)		.10
Hyperactivity/impulsivity symptoms (t)		.18
Step 2	.07*	
Parental affiliate stigma		.28*
Total R^2	.45*	

Note. (p) = Parent-rated, (t) = Teacher-rated

*
 $p < .01$.

**
 $p < .001$.