

Low Parental Warmth and Conduct Problems in ADHD Boys

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Children with Attention-Deficit/Hyperactivity Disorder (ADHD) often exhibit comorbid conduct problems (CP) (Banaschewski et al., 2003). Conduct problems are described as a repetitive and persistent disruptive, disobedient behavior, and the breaking of societal norms (Happé & Frith, 1996). ADHD might put some children at risk for CP. For example, features associated with ADHD, such as low frustration tolerance, dysphoria, and mood lability (APA, 1994) suggest that many children with ADHD need caregivers that are especially sensitive, patient, and reassuring. The cumulative effect of normal lapses in parenting, then, may be experienced as harsh or rejecting by children with ADHD, and reacted to accordingly (i.e., acting out). Moreover, the hyperactivity, impulsivity, and inattention symptoms of children with ADHD contribute to particularly challenging parenting experiences, increasing the likelihood of actual deficits in certain parenting variables such as involvement, warmth, and secure attachment (Olson et al., 2000; Stormshak et al., 2000; Whalen & Henker, 1999).

The current study tests the hypothesis that parents of ADHD children will demonstrate more verbal and physical warmth than will parents of ADHD + CP children during a semi-structured parent-child interaction.

Participants included a community sample of 36 boys (18 ADHD and 18 ADHD + CP) and their mothers. Child participants were diagnosed with ADHD, Combined Type. Diagnoses were confirmed with teacher and parent ADHD rating scales (ADHD-RS-IV: HV and ADHD-RS-IV: SV; DuPaul, Power, Anastopoulos, & Reid, 1998). The ADHD and ADHD + CP groups did not differ on severity of ADHD symptoms according to teacher report, but the mothers' reports were significantly different in the expected direction. All boys in the ADHD + CP group had $T > 69$ on the CBCL Aggressive Behavior and/or CBCL Delinquent Behavior scales (Achenbach, 1991). None of the ADHD boys had such elevations. The majority of children (80.6%) were normally on stimulant medication, but went without their medication for at least 18 hours prior to data collection.

The ADHD and ADHD + CP boys were matched on demographic variables as well as involvement in psychosocial treatment. The children had a mean age of 8.35 years ($SD = 1.23$, range = 7 – 10) and were primarily Caucasian (86.1%). Parent participants had a mean age of 38.19 years ($SD = 5.98$), were primarily Caucasian (78%) and married (66.7%). Median household gross income was \$40,000 annually.

Observed parental warmth was assessed using the Parent-Child Interaction Assessment (PCIA-II) (Holigrocki, Kaminski, & Frieswyk, 1999; Holigrocki, Kaminski, & Frieswyk, 2002), an analogue observation procedure in which parent-child dyads are videotaped while playing out short stories in response to 18 standard prompts. The Observational Coding System for Parent-Child Interactions (OCS) (Kaminski et al., 2002) was used to analyze parental behaviors and verbalizations during a 12-minute segment of the PCIA. Three codes assessed parental warmth: Positive Parental Verbal Responsiveness (PPVR), Parental Physical Affection (Physical A+), and Parental Verbal Affection (Verbal A+). PPVR was derived by subtracting the number of parent's Negative Personal Comments about the child (NPC) from the number of parent's Positive Personal Comments about the child (PPC). Inter-rater reliabilities for the codes ranged from .71 to .86. Construct validity has been demonstrated through expected correlations with numerous parenting measures (Kaminski et al., 2002).

A MANCOVA (with ADHD severity as the covariate) revealed a significant omnibus test for group membership on the measures of parental warmth, $F(3, 30) = 4.54$, $p < .05$, $Eta^2 = .45$. Univariate results indicated a significant effect for PPVR, $F(1, 32) = 6.07$, $p < .05$, $Eta^2 = .19$. As predicted, parents of ADHD + CP children scored lower on PPVR ($M = -1.45$, $SD = 3.77$) than did parents of ADHD children ($M = 3.61$, $SD = 3.45$).

Another MANCOVA explored how the components of PPVR (i.e., PPC-NPC) differed across groups.

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Univariate results indicated a significant effect for NPC, $F(2, 32) = 6.14, p < .05, \eta^2 = .18$, but not for PPC. Mothers of ADHD + CP children ($M = 5.56, SD = 3.47$) made significantly more negative personal comments about their sons than did parents of ADHD sons ($M = 2.33, SD = 1.97$).

As expected, mothers of ADHD + CP boys displayed less physical and verbal warmth toward their sons than did mothers of ADHD boys, even when ADHD severity was controlled. Of course, causality cannot be determined from the current data and the possibility that the additional behavior problems of ADHD + CP children diminish their parents' warmth for them must be considered. Longitudinal designs must be employed to investigate the direction of effects, keeping in mind that there may also be a recursive process of escalating negativity on the part of both parent and child.

A parent's frequent negative comments about their child in the absence of positive comments may play a particularly important role in the development of conduct problems in ADHD boys. This interpretation of the data is consistent with constructivist and psychodynamic theories of personality development that highlight the importance of a caregiver's perceptions of his or her child in shaping the child's sense of self. Thus, as the child internalizes the parent's message that they are unmanageable, they will act accordingly.

Our findings support the notion that ADHD children may be particularly vulnerable to the potentially injurious consequences of low parental warmth. Parent-training interventions for ADHD children should not only focus on behavior management, but also emphasize the importance of parental warmth. In particular, helping parents to make positive comments and avoid criticizing their child may play a crucial role in reducing an ADHD child's risk for CP.

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