

Background

- Parents of children with Attention-Deficit/Hyperactivity Disorder (ADHD) report more parenting stress than parents of children without ADHD (Johnston & Mash, 2001; McCleary, 2002; Theule, Wiener, Jenkins, & Tannock, in press).
- There is considerable research on parenting stress among parents of children with ADHD; however, no previous studies have investigated whether parents of adolescents with ADHD experience more stress than parents of typically developing adolescents.
- Severity of inattentive and hyperactive/impulsive symptoms and conduct problems among children with ADHD is strongly associated with increased parenting stress (Theule, Wiener, Jenkins, & Tannock, in press).
- Some research suggests that ADHD child characteristics result in parent stress (e.g., Fischer, 1990; Mash & Johnston, 1990), others, however, have found that a decrease in parenting stress following parent training was not associated with improvements in the behaviour of the child (Pisterman et al., 1992); therefore, it is likely that there are other factors that contribute to the amount and pervasiveness of parenting stress.
- Fischer (1990) and Anastopoulos and colleagues (1992) suggest that parental psychopathology, which they found occurs more frequently in parents of children with ADHD, exacerbates parenting stress. Maternal psychopathology has been shown to be related to higher levels of parenting stress, most likely because mental illness and psychological difficulties may prevent a parent from accessing coping skills that are necessary for decreasing stress levels (Webster-Stratton, 1990).
- This empirical question is an important area of investigation because **parents of children with ADHD who experience high levels of parenting stress have poorer psychological well-being** (Crnic & Greenberg, 1990) and are less able to implement parenting interventions (e.g., Kazdin, 1995). Furthermore, parent management training interventions are more effective when the intervention initially focuses on reducing parenting stress (Kazdin & Whitley, 2003).

Method

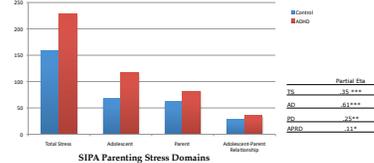
- Participants**
 - 45 adolescents (26 with ADHD; 19 without ADHD) age 13-18 and their parents were recruited through schools and community sources.
- Measures**
 - Conners-3 Rating Scale** (3rd edition; Parent and Teacher Rating Scales): DSM-IV-TR Predominantly Inattentive Type and DSM-IV-TR Predominantly Hyperactive-Impulsive Type scales were used to confirm ADHD status.
 - Conners Adult ADHD Self-Report Rating Scale:** Screens parents for the core symptoms of ADHD, including symptoms of all ADHD subtypes
 - The Stress Index for Parents of Adolescents (SIPA):** a measure of parenting stress across three domains: adolescent, parent, and adolescent-parent relationship. The **adolescent domain** measures parenting stress as a function of the characteristics of the adolescent (e.g., mood, motivation). The **parent domain** measures parenting stress as a function of the effect of parenting on a parent's other life roles (e.g., relationship with their friends and their spouse, their feelings of competence). The **adolescent-parent relationship domain** measures the perceived quality of the relationship the parent has with the adolescent (e.g., degree of communication, amount of affection)

Data Analysis

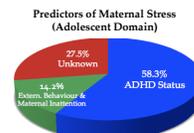
- Two-way ANOVA with adolescent ADHD status & gender as independent factors were used to compare parents with and without ADHD on Total Stress, Adolescent, Parent, Adolescent-Parent Relationship domain stress.
- Composite of externalizing symptoms was created by aggregating parent ratings of aggression, conduct problems, oppositionality on the Conners-3 Rating Scale
- Significant predictors of parenting stress were explored through **mediation** analysis. The Sobel procedure was used to investigate the effect of the mediator on the relationship between ADHD status and parenting stress

Results

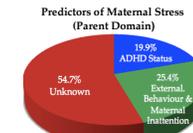
Maternal Parenting Stress



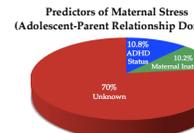
**The relationship between ADHD status and Total stress is fully mediated by adolescent externalizing behaviour and partially mediated by maternal inattention.



**Maternal inattention was not a significant predictor of adolescent domain stress. The relationship between ADHD status and adolescent domain stress is partially mediated by adolescent externalizing behaviour.

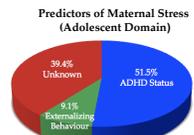
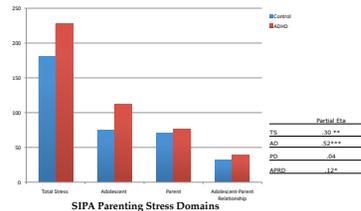


**Adolescent externalizing behaviour was not a significant predictor. The relationship between ADHD status and parent domain stress is fully mediated maternal inattention.



**The relationship between ADHD status and adolescent-parent relationship domain stress is fully mediated maternal inattention.

Paternal Parenting Stress



**The relationship between ADHD status and adolescent domain stress is partially mediated by externalizing behaviour.

Predictors of Maternal Stress (Adolescent-Parent Relationship Domain)



Discussion

- Mothers of adolescents with ADHD experience significantly higher levels of stress in all areas and these effect sizes were large. Fathers of adolescents with ADHD experience more Total stress and more stress in the Adolescent and Adolescent-Parent Relationship domains.
- Mothers of adolescents with ADHD experience more stress in the Parent domain than mothers of typically developing adolescents whereas this difference was not evident for fathers. There are several possible reasons: mothers typically take responsibility for the majority of childcare duties in the household (e.g., discipline, daily needs, recreational activities; Parke, 2000) and provide more direct involvement throughout infancy and early childhood (Hofferth et al., 2007). This imbalance in childcare duties continues into adolescence (Hosley & Montemayor, 1997) and is evident within dual-income families (Blanchi & Raley, 2005; Coltrane, 2000). Fathers, on the other hand, tend to spend time participating in leisure activities with their children and adolescents (Hosley & Montemayor, 1997; Lewis & Lamb, 2003). In addition, high levels of paternal stress are associated with lower parental engagement and less support when co-parenting (Bronte-Tinkew, Horowitz & Carrano, 2009). Thus parenting challenges may impact mothers more strongly than fathers.
- The current study has shown that externalizing behaviour continues to be predictive of parenting stress among parents of adolescents with ADHD. It is important to note that ADHD symptoms and externalizing behaviour are highly correlated (Inattention: $r = .70, p = .000$; Hyperactivity/Impulsivity: $r = .65, p = .000$). Furthermore, due to the relative independence of adolescents compared to younger children, parents may not be constantly exposed to their sons' and daughters' inattention, hyperactivity and impulsivity. Although oppositional behaviours (e.g., swearing at a teacher), conduct problems (e.g., stealing), and aggression are less frequent than inattention, hyperactivity and impulsivity, they may have a larger impact on parent stress levels.
- Previous research has reported that parents of children with ADHD with higher levels of ADHD symptoms reported more Parent domain stress (Theule, Wiener, Jenkins, Tannock, in press). The current study showed that maternal inattention fully mediated the relationship between adolescent ADHD status and stress reported in the Parent and Adolescent-Parent Relationship domains, suggesting that **mothers with higher levels of inattention experience more stress.**
- Parental ADHD symptoms are positively associated with inconsistent discipline and nonsupportive responses to the negative emotions and behaviours of children (Mokrova, O'Brien, Calkins, & Keane, 2010). In addition, parents with ADHD tend to be inconsistent in enforcing rules and placing limits on their children and this may be due to difficulties with monitoring and following through with consistent consequences (Murray & Johnston, 2006). Thus, when parents are unable to effectively manage their children's behaviour, this may result in increased problem behaviours and in turn, increased parenting stress. Given that mothers are primarily responsible for childcare duties, parenting may become much more difficult when mothers have difficulty sustaining attention and concentration. Lower tolerance for problem behaviours may also result in greater conflict which then leads to a strained adolescent-parent relationship.
- The results of this study provide strong support for the need to provide parents of adolescents with ADHD and externalizing behaviour problems and mothers with ADHD and symptoms of inattention with interventions designed to reduce and help them cope with parenting stress.

References

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