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Development of the pediatric accommodation scale: Reliability and validity of clinician- and parent-report measures

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ABSTRACT

The present study developed parallel clinician- and parent-rated measures of family accommodation (Pediatric Accommodation Scale, PAS; Pediatric Accommodation Scale-Parent Report; PAS-PR) for youth with a primary anxiety disorder. Both measures assess frequency and impact of family accommodation on youth and families. Studying youth ages 5–17 ($N = 105$ caregiver-youth dyads), results provide evidence for the psychometric properties of the PAS, including internal consistency, inter-rater reliability, and convergent and discriminant validity. The PAS-PR exhibited good internal consistency and convergent validity with the PAS. Nearly all parents (>95%) endorsed some accommodation and accommodation frequency was associated with parent-rated impairment (home and school), and with youth-rated impairment (school only). Greater impact of accommodation on parents was associated with parent self-reported depressive symptoms. Findings support the common occurrence of family accommodation in youth with anxiety disorders, as well as for the use of the PAS and PAS-PR to measure family accommodation in this population.

1. Introduction

Anxiety disorders in youth have prevalence rates ranging from 10 to 20% (Costello, Egger, & Angold, 2004; Costello, Egger, & Angold, 2005; Velting, Setzer, & Albano, 2004) and cause substantial impairment in academic performance, social functioning, and family relationships (Bernstein & Borchardt, 1991; Drake & Ginsburg, 2012; Velting et al., 2004). Anxiety disorders in youth are linked to future mental health problems, such as depression (Cummings, Caporino, & Kendall, 2013), other anxiety disorders, substance abuse, and suicide attempts in adulthood (Beesdo et al., 2007; Bittner et al., 2007; Pine, Cohen, Gurley, Brook, & Ma, 1998). Given the high psychosocial burden, it is vital to improve treatment outcomes for youth with anxiety disorders. Although cognitive-behavioral therapy (CBT) is a well-established treatment for anxiety in youth (Hollon & Beck, 2013), some cases are treatment refractory and many youth are partial responders (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004). Identifying predictors of treatment outcome, mechanisms of change, and factors related to treatment completion is necessary to enhance efficacy (e.g., Kendall, Settipani, & Cummings, 2012).

Given that youth and adolescents are embedded in the family context, it is important to consider the role of the parents and family in symptom development, maintenance, and treatment. A number of studies have examined family factors associated with anxiety in youth, including parenting stress, rejection, and control (Drake & Ginsburg, 2012). It is widely acknowledged that family factors are important to child anxiety treatment outcome, but the empirical findings have been inconsistent (Barmish & Kendall, 2005). Pretreatment family variables, such as parenting stress, family dysfunction, and parental frustration have been associated with poorer CBT outcomes in anxious youth (Crawford & Manassis, 2001) and have significantly predicted non-remission of anxiety disorders at long-term follow-up (Ginsburg et al., 2014). For example, some studies have shown that parent psychopathology, such as anxiety (Cobham, Dadds, & Spence, 1998; Kendall,

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Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008) and depression (Southam-Gerow, Kendall, & Weersing, 2001), predicts poorer acute and/or follow-up treatment response in anxious youth. In contrast, Crawford and Manassis (2001) did not find that parent psychopathology was related to treatment response. Victor, Bernat, Bernstein, and Layne (2007) also found no differences in treatment outcome related to parental psychopathology, parenting stress, or family adaptability. A meta-analysis involving 47 studies showed that only 4% of variance in child anxiety symptoms was accounted for by parenting practices (McLeod, Wood, & Weisz, 2007). This finding may be due to failure to identify the constructs most relevant to treatment outcome and/or difficulty operationally defining those constructs.

One family variable that has received empirical attention, family accommodation, has mainly been studied in the context of obsessive–compulsive disorder (OCD). Family accommodation refers to ways in which family members alleviate the child's symptoms; for example, by providing reassurance, modifying the child's and family's routines, taking over the child's responsibilities, and helping the child avoid feared stimuli (Storch et al., 2007). Theoretically, family accommodation negatively reinforces a child's symptoms by temporarily reducing anxiety, thus adversely affecting treatment outcome (Leane, 1991). To systematically study family accommodation in adults with OCD, Calvocoressi, Lewis, Harris, and Trufan (1995) and Calvocoressi et al. (1999) developed the clinician-administered Family Accommodation Scale (FAS). Since its initial development, the FAS has been widely used as a family-report measure for adults and youth with OCD and has excellent psychometric properties (Flessner et al., 2010; Merlo, Lehmkuhl, Geffken, & Storch, 2009; Peris et al., 2008; Storch et al., 2007). Up to 90% of families of adults with OCD have reported at least some accommodation when administered the FAS (Albert et al., 2010; Stewart et al., 2008; Storch et al., 2007). Similarly, most families of youth with OCD have reported some degree of family accommodation related to the child's symptoms (Peris et al., 2008; Storch et al., 2007). In addition, family accommodation in youth is directly related to OCD symptom severity, functional impairment, and comorbid internalizing and externalizing behavior problems (Caporino et al., 2012; Lebowitz, Vitulano, & Omer, 2011; Storch et al., 2007; Storch, Larson, et al., 2010; Storch et al., 2012). Clinician-rated family accommodation has also been found to mediate the relationship between OCD symptom severity and parent-rated functional impairment in cross-sectional studies (Caporino et al., 2012; Storch et al., 2007), further emphasizing the importance of addressing family accommodation in treatment.

In addition to adversely impacting pediatric OCD symptoms, family accommodation may have a negative effect on the parent or caregiver. Ramos-Cerqueira, Torres, Torresan, Negreiros, and Vitorino (2008) found that family accommodation was associated with high caregiver burden and self-reported psychiatric symptoms in the caregivers. Family accommodation is also related to parental anxiety, which may be both a trigger and result of accommodation (Flessner et al., 2011).

Several studies have examined the role of family accommodation in response to treatment for OCD. Amir, Freshman, and Foa (2000) found that family accommodation was related to posttreatment OCD symptom severity in adolescents and adults, suggesting that accommodation may have interfered with treatment. Similarly, higher levels of family accommodation were associated with worse OCD treatment outcomes in youth enrolled in the Pediatric OCD Treatment Study (POTS I; Garcia et al., 2010). In an adult OCD study, Ferrão et al. (2006) found that levels of family accommodation were higher for those who did not respond to CBT, with 52.4% of non-responders receiving extreme family accommodation compared to only 3.8% of responders. Studies have shown the benefit of targeting family accommodation in treatment. For example, Merlo et al. (2009) found that decreases in family accommodation during family-based cognitive behavior therapy (FCBT) were associated with better treatment outcomes among youth with OCD. Similarly, Piacentini et al. (2011) found that reduced accommodation levels resulting from FBCT temporally preceded improvement in child reported OCD-specific functional impairment, suggesting that decreases in accommodation contributed to positive outcomes.

Although family accommodation has been studied in pediatric OCD, its role in pediatric anxiety more broadly remains unclear. It is likely that family accommodation negatively reinforces the child's symptoms in other anxiety disorders similar to the way it is theorized to operate in OCD, adversely affecting treatment outcome. For example, in Generalized Anxiety Disorder (GAD), family accommodation may manifest as the provision of reassurance about worries or the promotion of avoidance. Similarly, in Social Phobia, parents may accompany the child in feared social situations and/or modify the child's routine to avoid them. Separation Anxiety Disorder (SAD) has great potential for family accommodation, because there is significant parent involvement in symptoms. Parents may provide reassurance and/or modify their own or their child's routine to avoid separation.

Recent efforts to measure family accommodation in non-OCD pediatric anxiety disorders have shown promise (Lebowitz et al., 2013). However, they have relied on parent reports of accommodation and a modest set of measures (self-reported anxiety and depression) for testing convergent and discriminant validity. Accommodation may be best identified by clinicians who have familiarity with a child's symptoms, rather than by families, who may not recognize forms of accommodation that have become embedded in the family routine. This may be especially critical, as parent-report of accommodation might be influenced by social desirability, lack of recognition of accommodation behaviors that have become routine and limited awareness of the process of accommodation. Finally, given the high levels of distress reported by families who engage in frequent accommodation, it may be critical to disentangle the differential impact of accommodation on families/parents versus youth.

The current study reports on the psychometrics of the Pediatric Accommodation Scale (PAS), a clinician-administered scale for rating both (a) the frequency of accommodation and (b) its impact on youth and families. We also report psychometric data for a parent-report version, the PAS-Parent Report (PAS-PR). The current study also explores relationships between family accommodation and other treatment-relevant variables (e.g., comorbidity, parent symptoms) in pediatric anxiety disorders. We hypothesized that each subscale (Frequency, Parent Impact, and Child Impact) of the PAS and PAS-PR would show evidence of reliability (internal consistency for both measures and inter-rater reliability for the PAS). Furthermore, we hypothesized that both measures would show stronger relationships with indicators of anxiety severity (i.e., child anxiety symptoms, symptom severity, and functional impairment) than with indicators of non-anxiety psychopathology (depression symptoms, externalizing symptoms). In further support of the construct validity of the PAS-PR, we hypothesized that it would correlate highly with the PAS; however, we expected that associations with indicators of anxiety severity would be stronger for the clinician-rated PAS than the PAS-PR. We hypothesized that accommodation would not differ by the child's principal diagnosis but would be associated with comorbidity status and the presence of an externalizing disorder. Finally, we hypothesized that accommodation overall, and especially its impact on parents/families, would be related to parent-reported symptoms of depression and anxiety.