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.

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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,

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.

2. Methods

2.1. Initial scale development

The Pediatric Accommodation Scale (PAS) and PAS-PR emerged from several phases. First, items were drafted and refined based on the FAS (Calvocoressi et al., 1999), a review of the extant literature, and experiences of a five-member writing committee. Then, to consider user feedback, the measure was given to youth with a primary anxiety disorder and their families ($n = 5$), and revised based on their qualitative feedback. The PAS was then piloted with 59 families of youth with primary diagnosis of anxiety (SAD, GAD, or Social Phobia) across two specialty clinics in the southeast United States. Feedback from clinical interviewers in this pilot study suggested concern about the clinical relevance of items that occurred with low frequency but potentially high impact on functioning (e.g., missing school, dropping out of ongoing social activities). Additionally, data from the pilot study suggested that inter-rater reliability was low because some interviewers inflated the frequency rating due to perceived clinical utility of capturing the high level of impact on the child or family). Based on these results, an impact rating was added to each item to aid in differentiating the frequency of accommodation behaviors from their impact on youth and family functioning. Additionally, our experience suggested that the ability to measure impact on parents/families and youth separately is critical for accurate understanding of accommodation in the family context. Three global items that assess overall accommodation from specific family members (primary caregiver, secondary caregiver, and sibling) were added. Finally, though the clinician-administered format may be optimal because it allows for probing for accommodation around known symptoms, the time and training required to administer the clinician version may not be feasible for some settings. Therefore, we developed a brief parent-version (PAS-PR) using the five most frequently endorsed PAS items. For additional details about the initial scale development see Grabill (2011).

2.2. Current scales

The PAS is a clinician-rated scale that incorporates information from the patients/caregiver(s). It may be administered by a psychologist, psychiatrist, or a trained clinical interviewer who has familiarity with a youth's symptoms. The PAS contains 14 items, each of which includes a specific question followed by a series of examples that can be adjusted by the administering clinician. For example, to assess whether parents facilitate avoidance, the PAS asks "How often in the last week did you help your child avoid things or situations that might make him/her more anxious, such as talking to others, separating from you, or watching the news?" Clinicians are able to substitute known symptoms for the provided examples, tailoring the administration for each family. In addition, the semi-structured format permits follow-up questions as necessary to clarify a response or to probe more carefully around a family routine. Response options for frequency of accommodation include 0 (never: does not occur), 1 (rarely: infrequent, less than once per week), 2 (occasionally: somewhat frequent, at least once per week by not daily), 3 (often: frequent, at least once per day, but not more than 5 times per day), and 4 (always: very frequent: occurring more than 5 times per day). Response options for severity and interference of accommodation also range from 0 to 4, including 0 (none: no interference), 1 (mild: limited interference in one area, but few or no problems functioning), 2 (moderate: clear interference in one area or some interference in two or more areas; overall moderate impact on functioning), 3 (severe: significant interference in one or more areas; overall severe impact on functioning), and 4 (extreme: interference from accommodation is disabling in one or more

areas; overall functioning is severely limited due to accommodation). The PAS-PR is a 5-item parent-report measure, with each item followed by a series of common examples to illustrate the principle of accommodation for parents. PAS-PR items were selected using the most frequently endorsed items from the PAS pilot study, and were provided on a 0–4 scale for both frequency and interference of accommodation. Responses for frequency include 0 (never), 1 (rarely), 2 (occasionally), 3 (often), and 4 (always). Response options for interference due to accommodation include 0 (none), 1 (mild), 2 (moderate), 3 (severe), and 4 (extreme).

2.3. Participants

Participants were 105 youth (53.3% male) ages 5–17 ($M = 9.29$, $SD = 2.82$) and their parents ($N = 105$ total; $N = 6$ fathers) who participated in a research evaluation at one of two anxiety disorder specialty clinics. Inclusion criteria were: (a) principal diagnosis of a non-OCD anxiety disorder, including GAD, SAD, specific phobia, social phobia, or anxiety disorder not otherwise specified (b) youth age between 5 and 17 years, and (c) parent age above 21 years. Exclusion criteria were (a) positive diagnosis of psychosis or autism, (b) principal diagnosis other than an anxiety disorder, and (c) positive diagnosis in the caregiver of mental retardation, psychosis, or other psychiatric disorders or conditions that would limit their ability to complete measures. To maximize generalizability, youth with comorbid diagnoses (except psychosis or autism) were included. Given the high rate of comorbidity of OCD with other anxiety disorders, youth with a secondary diagnosis of OCD ($n = 8$) were also included. Youth were primarily non-Hispanic White (85.7%; 2.2% Hispanic; 2.2% Black, 1.1% Asian, 8.8% other) and median yearly household income was over $80,000. Participant demographic variables (e.g., age, gender, income) were not significantly related to any study measures.

All youth had a primary diagnosis of GAD (49.0%), Social Phobia (10.6%), SAD (30.8%), Anxiety NOS (2.9%), or Specific Phobia (3.8%) according to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM-IV-TR) criteria (American Psychiatric Association, 2000). Comorbid diagnoses, when present, included SAD ($n = 16$), Social Phobia ($n = 29$), GAD ($n = 22$), Specific Phobia ($n = 22$), Panic Disorder ($n = 1$), OCD ($n = 8$), Attention-Deficit/Hyperactivity Disorder (ADHD; $n = 11$), Mood Disorder ($n = 9$), and Oppositional Defiant Disorder (ODD; $n = 10$).

2.4. Sites

All study evaluations were completed at one of two anxiety disorders specialty clinics: Bradley-Hasbro Pediatric Anxiety Research Clinic (PARC) at Brown University or the Child and Adolescent Anxiety Disorders Clinic (CAADC) at Temple University. Participants in both clinics were seeking treatment and provided informed consent allowing use of data collected during regular clinic intake procedures (see Section 2.7). Examination of all study variables by site revealed no significant differences in symptom severity, family income, or accommodation (p's > .05). However, significant site differences emerged in the number of youth with separation anxiety and the proportion of boys in the sample. There was a higher proportion of males at Temple when compared with Brown (Table 1; $\chi^2 = 3.91$, $p < .05$). Additionally, a higher proportion of SAD was present at Brown ($\chi^2 = 17.01$, $p < .05$), which may be related to the relatively young age of youth at Brown, $t(102) = -3.34$, $p < .05$. There were no other site differences on demographic or study variables. See Table 1 for all demographic and clinical characteristics by site.

2.5. Clinical interviewers

Interviews were conducted by trained clinical interviewers. Clinical interviewers at both sites were pre-doctoral trainees or postdoctoral fellows supervised by a licensed psychologist. Clinical interviews conducted by primary raters were videotaped and blindly rated by second raters. Second raters were trained to reliability with primary interviewers (Cohen's kappa at or above .85) and monitored for drift. To ensure fidelity across sites, all clinical interviewers were trained to a reliable standard on clinician-rated measures through a training workshop, joint interviews, and discussion. Interviewers were trained to focus on accommodation related to primary non-OCD anxiety symptoms during their interviews, and when possible, to exclude accommodation of comorbid symptoms (e.g., OCD, mood, or oppositional) from their ratings.

2.6. Measures

2.6.1. Anxiety disorders interview schedule for children for DSM-IV, parent and child versions (ADIS-IV-C/P)

The ADIS-IV-C/P (Silverman & Albano, 1996) is a structured, clinician-rated interview that assesses the presence and severity of anxiety, mood, and externalizing disorders, and screens for additional disorders (e.g., psychosis, PDD) in children and adolescents. Psychometric properties, including test–retest reliability ($k = .70–1.00$) and construct validity, of the ADIS-IV-C/P are good to excellent (Silverman, Saavedra, & Pina, 2001; Wood, Piacentini, Bergman, McCracken, & Barrios, 2002). Diagnoses were assigned if full criteria were met either by parent report or by child report. Training to reliability (Cohen's kappa ≥ .85) was conducted in two phases: (1) the clinician rated along as the ADIS-IV-C/P was administered by a reliable diagnostician, and (2) a reliable diagnostician rated along as the clinician administered the ADIS-IV-C/P. For each phase of training, clinicians were required to generate the same diagnostic profile as a reliable diagnostician on at least three of four consecutive administrations.

2.6.2. Beck Depression Inventory-second edition (BDI-II)

The BDI-II (Beck, Steer, & Brown, 1996) is a 21-item self-report measure of parent depressive symptoms experienced during the past week. Extensive reliability and validity data have been reported in clinical and non-clinical samples, including evidence of construct validity using confirmatory factor analysis high internal consistency (>.80), convergent validity with other measures of depression, and discriminant validity with measures of anxiety (Beck et al., 1996; Storch, Roberti, & Roth, 2004; Whisman, Perez, & Ramel, 2000). In the current sample, $N = 41$ parents completed the BDI-II and internal consistency was excellent (Cronbach's alpha = .90).

2.6.3. Child Anxiety Impact Scale (CAIS)

The CAIS (Langley, Bergman, McCracken, & Piacentini, 2004) examines functional impairment due to anxiety symptoms. The CAIS is a 34-item scale measuring the amount of impairment globally and in specific domains of functioning: school (CAIS-Sch), social activities (CAIS-Soc), and home/family activities (CAIS-Home). Response options range from 0 (not at all) to 3 (very much). The CAIS has demonstrated good including internal consistency (>.70), convergent validity and discriminant validity (Langley et al., 2004). Parent- and child-report versions of the measure (CAIS-P and CAIS-C, respectively) were administered. In the current sample, $N = 70$ children over age 8 completed the CAISC with internal consistency ranging from good to excellent for subscales (Cronbach's alpha = .71–.87); $N = 105$ parents completed the CAISP with

internal consistency ranging from adequate to excellent for subscales (Cronbach's alpha = .65–.85).

2.6.4. Child Behavior Checklist (CBCL)

The CBCL (Achenbach, 1991) is a 118-item, parent-rated questionnaire that assesses behavioral and emotional problems exhibited by the child in the past six months. Overall, the CBCL has excellent psychometric properties including one-week test–retest reliability, adequate internal consistency (Cronbach's alpha = .62–.92), and construct validity (Achenbach, 1991). The CBCL generates broad band Internalizing, Externalizing and Total problem scores. The current study included only the Externalizing problems score. In addition, 16 CBCL items that assess anxiety symptoms and associated physical complaints (e.g., headaches; stomachaches) were scored to produce the CBCL-Anxiety scale (Kendall et al., 2007), which has shown convergent and discriminant validity as well as sensitivity to change in treatment. In the current sample, $N = 105$ parents completed the CBCL with internal consistency ranging from adequate to excellent for subscales (Cronbach's alpha = .65–.87).

2.6.5. Children's Depression Inventory (CDI)

The CDI (Kovacs, 1992) is a 27-item child-report measure that assesses the presence and severity of cognitive, affective, and behavioral symptoms of depression during the previous two weeks. Widely used, the CDI has adequate internal consistency (>.80) and differentiates between depressed and non-depressed youth (Cantwell & Carlson, 1979; Lee, Krishnan, & Park, 2012). In addition, the CDI has good test–retest reliability (>.80) and construct validity as determined by high correlations with similar depression measures and through factor analysis (Kovacs, 1992). In the current sample, $N = 70$ children over age 8 completed the CDI, with good internal consistency (Cronbach's alpha = .82).

2.6.6. Mini International Neuropsychiatric Interview – child/adolescent version (M.I.N.I. KID)

The M.I.N.I. KID (Sheehan et al., 2010) is a brief structured clinician-rated interview. It is designed to assess current symptoms of psychopathology, including separation anxiety, social anxiety, generalized anxiety, depression, tics, and other psychiatric disorders. As a screening instrument, the M.I.N.I. KID is a validated structured interview that provides information related to the child's current level of functioning and diagnostic classification. The M.I.N.I. KID has demonstrated adequate reliability ($k = .75–1.00$) and validity (Sheehan et al., 2010). Training to reliability (Cohen's kappa ≥ .80) was conducted by having a reliable diagnostician (present in the room) rate along as the clinician administered the MINI. Clinicians were required to "match" with a reliable diagnostician by generating the same diagnostic profile.

2.6.7. Multidimensional Anxiety Scale for Children (MASC)

The MASC (March, 1997) is a 39-item child-report index of symptoms of general, social, and separation anxiety. Good psychometrics have been reported, including construct validity through confirmatory factor analysis, internal consistency (>.80), convergent validity and discriminant validity (March, 1997; Rynn et al., 2006; Villabo, Gere, Torgersen, March, & Kendall, 2012). In the current sample, $N = 70$ children age 8 and older completed the MASC with excellent internal consistency (Cronbach's alpha = .89).

2.6.8. Pediatric Anxiety Rating Scale (PARS)

The PARS (Research Units on Pediatric Pharmacology Anxiety Study Group, 2002) is a clinician-rated measure of the severity of anxiety symptoms. It contains a separate symptom checklist and severity rating scale. The severity rating scale contains six items that assess the frequency and overall severity of anxiety

Table 1
Sample characteristics by site.

Sample characteristic	Site		
	Brown (n = 69)	Temple (n = 36)	Total (N = 105)
Gender[*]	Male: 46.4%	Male: 66.6%	Male: 53.3%
	Female: 53.6%	Female: 33.3%	Female: 46.7%
Race/ethnicity	Non-Hispanic White 92.7%	Non-Hispanic White: 75.0%	Non-Hispanic White: 85.7%
	Black: 0%	Black: 5.6%	Black: 2.2%
	Asian: 0%	Asian: 2.8%	Asian: 1.1%
	Hispanic: 0%	Hispanic: 5.6%	Hispanic: 2.2%
	Other: 7.3%	Other: 11.1%	Other: 8.8%
Age in years[*]	$M = 8.65$, $SD = 2.61$	$M = 10.50$, $SD = 2.84$	$M = 9.29$, $SD = 2.82$
Primary diagnosis[*]	Separation Anxiety: 41.2%	Separation Anxiety: 11.11%	Separation Anxiety: 30.8%
	Generalized Anxiety: 39.7%	Generalized Anxiety: 66.7%	Generalized Anxiety: 49.0%
	Social Phobia: 8.8%	Social Phobia: 13.9%	Social Phobia: 10.6%
	Specific Phobia: 1.5%	Specific Phobia: 8.3%	Specific Phobia: 3.8%
	Anxiety NOS: 4.4%	Anxiety NOS: 0%	Anxiety NOS: 2.9%
Symptom severity[a]	$M = 16.74$, $SD = 3.38$	$M = 15.03$, $SD = 5.22$	$M = 16.17$, $SD = 4.12$

[*] Significant site difference at $p < .05$.
[a] Pediatric Anxiety Rating Scale (PARS).

symptoms, the severity of physical symptoms of anxiety, overall avoidance of anxiety-provoking situations, and anxiety-related interference with functioning at and outside of the home. The PARS has demonstrated inter-rater reliability (ICC = .97), convergent and discriminant validity, and sensitivity to treatment effects (Caporino et al., 2013; Research Units on Pediatric Pharmacology Anxiety Study Group, 2002; Walkup et al., 2008). In the current sample, $N = 105$ families completed this measure with the clinician, with good internal consistency (Cronbach's alpha = .74).

2.6.9. Screen for Child Anxiety Related Emotional Disorders – revised (SCARED-R)

The parent version of the SCARED-R (Muris et al., 1998) is a revised version of the original SCARED (Birmaher et al., 1997) consists of 66 items that assess youth's fears and anxiety. Items tap symptoms of several DSM-IV anxiety disorders, namely SAD, GAD, Panic Disorder, and social phobia. This measure has shown satisfactory internal consistency (>.80), as well as convergent and discriminant validity, and can discriminate between patients with anxiety disorders and youth with other clinical problems (Muris & Steerneman, 2001; Muris, Dreessen, Bogels, Weckx, & van Melick, 2004). In the current sample, $N = 105$ parents completed the SCARED, with excellent internal consistency (Cronbach's alpha = .90).

2.6.10. State-Trait Anxiety Inventory-Trait version (STAI-T)

The STAI-T (Spielberger, 1983) consists of 20 self-report items, each rated on a 4-point scale, that measured the tendency of parents to experience general anxiety and view stressful situations as threatening. The widely-used STAI-T has been found to have good internal consistency (>.80) as well as convergent and discriminant validity, and can discriminate between patients with anxiety and non-clinical controls (Balsamo et al., 2013; Bieling, Antony, & Swinson, 1998; Spielberger, 1983, 1989). In the current sample, $N = 41$ parents completed the STAI-T with good internal consistency (Cronbach's alpha = .80).

2.7. Procedures

The two sites' institutional review boards provided human subjects ethical approval. Families who contacted either Brown University or Temple University for treatment were invited to participate in a series of research studies as part of the intake procedure. Documentation of consent/assent was obtained from all participants. Participants completed self-report forms prior to the administration of clinician-rated measures. Youth ages 8 and

over ($n = 70$) and one of his/her parents ($N = 105$) each completed self-report measures of anxiety and depressive symptoms; and each reported on youths' anxiety-related impairment. Parents also completed measures of child anxiety symptoms and comorbid psychopathology as well as family functioning. Although they were not able to complete self-report measures, youth under age 8 were included to examine the role of family accommodation across age groups. This need was viewed as critical given a lack of research in very young children (Verdeli, Mufson, Lee, & Keith, 2006). Completion of all parent- and youth-report measures took between 60 and 90 min.

Inter-rater reliability for the PAS was conducted by randomly sampling tapes across both sites (~42%; Brown $N = 29$, Temple $N = 15$). Inter-rater reliability ratings were conducted at Brown by raters watching videotapes of PAS interviews, and raters were trained to a reliable standard on the PAS (>.80). At the time of the diagnostic interview, the ADIS-IV-C/P at Temple or the M.I.N.I. KID at Brown was administered to parents and youth by advanced graduate students or postdoctoral fellows trained to reliability (Cohen's kappa ≥.85 for the ADIS; ≥.80 for the MINI). Following the interview, parents and youth were administered the PARS and parents were administered the PAS.

2.8. Data analytic approach

All demographic variables and study measures were examined for site differences using chi-square or t-tests. All study measures were examined for differences related to demographics using Pearson's correlation or t-tests. Reliability was calculated using Cronbach's alpha (internal consistency) for the PAS and PAS-PR, and item intraclass correlation coefficients (ICCs) for the PAS (inter-rater reliability). Convergent and discriminant validity of the PAS and PAS-PR were calculated using Pearson's correlations with relevant measures. Pearson's correlation was also used to explore the relationships of the PAS and PAS-PR with variables of interest (i.e., age, gender, number of comorbidities, presence of an externalizing disorder, presence of each anxiety disorder, parent psychopathology symptoms), and analysis of variance was used to examine the differences on the PAS and PAS-PR related to principal diagnosis. Across analyses, we used a moderately conservative significance level of $p < .01$ to control for family-wise error. We decided against a more conservative approach (i.e., Bonferroni correction) to avoid increasing the risk of type II error. Normality of measures was examined using skewness and kurtosis statistic Z-scores (Field, 2013). When measures violated assumptions of normality, we used square root transformation for those variables in all

Table 2
PAS items.

Item	Frequency		Impact[a]	
	M(SD)[b]	Percent endorsing[c]	M(SD)[b]	Percent endorsing[d]
1. Providing reassurance	2.85(.93)	97.1%	1.07(.99)	62.7% (child)
2. Facilitating avoidance	1.80(1.33)	71.8%	1.05(1.17)	52.4% (child)
3. Change in parent activities	.63(.98)	33.0%	.54(.93)	28.2% (parent)
4. Change in family routine	1.70(1.39)	66.0%	1.07(1.17)	55.3% (parent)
5. Change in parent work schedule	.59(1.07)	26.2%	.43(.93)	21.4% (parent)
6. Reducing child responsibilities	.85(1.25)	36.9%	.48(.94)	21.6% (child)
7. Change in school schedule	.58(1.08)	26.2%	.39(.94)	18.4% (child)
8. Change in child social activities	.80(1.11)	38.8%	.59(1.00)	32.0% (child)
9. Change in bedtime routine	1.48(1.56)	50.5%	.79(1.13)	38.8% (child)
10. Family distress	1.98(1.28)	76.7%	1.31(1.20)	64.1% (parent)
11. Child distress without accommodation	1.38(1.24)	62.1%	.89(1.11)	47.6% (child)
Global items				
Accommodation from primary caregiver	2.93(1.07)	94.2%	Parent: 1.33(1.13) Child: 1.31(1.12)	Parent: 69.9% Child: 66.0%
Accommodation from secondary caregiver ($n = 92$)	1.92(1.24)	80.3%	Parent: .92(.99) Child: .77(.91)	Parent: 56.8% Child: 50.0%
Accommodation from sibling ($n = 48$)	1.37(1.32)	60.4%	Sibling: .76(1.16) Child: .50(.80)	Sibling: 39.0% Child: 35.7%

[a] Some impact items are rated for the impact on the youth (child) and some are rated for the impact on the parent/family (parent).
[b] Frequency response scale is 0 (never) to 4 (always) and impact response scale is 0 (none) to 4 (extreme).
[c] Percent of respondents reporting frequency of accommodation as "rarely" or greater (>1).
[d] Percent of respondents reporting impact of accommodation as "mild" or greater (>1).

analyses, which was sufficient to correct non-normality. Descriptive data (i.e., means and standard deviations) are reported in the original metric. Missing data within measures were handled by replacing missing values with the scale average when fewer than 20% of data were missing. When 20% of data or greater were missing, we used listwise deletion (and reported the resulting n where relevant).

3. Results

3.1. Clinician administered PAS

We examined psychometric data for three PAS subscales: the PAS Frequency scale (PAS-F; frequency ratings for items 1–11), measuring frequency of accommodation over the previous week; the PAS Parent Impact scale (PAS-PI; impact ratings for items 3, 4, 5, and 10), measuring impact of accommodation on the parent over the previous week; and the PAS Child Impact scale (PAS-CI; impact ratings for items 1, 2, 6, 7, 8, 9, and 11), measuring impact of accommodation on the child over the previous week. Each item is scored for frequency and impact on *either* the parent or the child, depending on the relevance of the accommodation behavior being queried. For example, item 5 (change in parent work schedule) is rated for impact on the parent, while item 7 (change in child school schedule) is rated for impact on the child. The PAS-F was normally distributed, without significant skewness or kurtosis. The PAS-PI and PAS-CI were significantly positively skewed (PAS-PI skewness = 1.03, $Z = 4.32$; PAS-CI skewness = 1.00, $Z = 4.12$) without significant kurtosis.

Nearly all parents (97.1%) endorsed some accommodation on the PAS (Table 2). The most frequently endorsed items were providing reassurance (Frequency: 97.1%, Child Impact: 62.7%), facilitating avoidance (Frequency: 71.8%, Child Impact: 52.4%), and parent experience of distress during accommodation (Frequency: 76.7%, Parent Impact: 64.1%). The least frequently endorsed items included parent change in work schedule (Frequency: 26.2%, Parent Impact: 21.4%) and child change in school schedule (Frequency: 26.2%, Child Impact: 18.4%).

3.1.1. Reliability
The PAS demonstrated good internal consistency (PAS-F alpha = .80, PAS-PI alpha = .80, PAS-CI alpha = .76). Inter-rater reliability, calculated for 42.8% of the sample, was excellent (ICC range .82–1.0).

3.1.2. Convergent validity
All correlations are reported in Table 4. As predicted, the PAS-F, PAS-PI, and PAS-CI were significantly positively correlated with clinician-rated anxiety severity (PARS), parent-rated anxiety symptoms (CBCL-A), parent-rated anxiety impairment at home (CAIS-P Home), and child-rated anxiety impairment at school (CAIS-C School). Additionally, PAS-F and PAS-PI were significantly positively related to parent-rated anxiety impairment at school (CAIS-P School). Contrary to predictions, the PAS subscales were not significantly related to youth-reported anxiety symptoms (MASC).

3.1.3. Discriminant validity
As hypothesized, the PAS subscales were not significantly related to externalizing symptoms (CBCL-Ext), though some relationships were moderately strong ($r = .24–.27$). The PAS-F was not significantly related to child depression symptoms (CDI). Contrary to expectations, the PAS-PI and PAS-CI were significantly related to child depression symptoms (CDI).

3.2. PAS-parent report

The PAS-PR was administered to a subset of participants at the Brown site only ($n = 56$). We examined psychometric data for three PAS-PR subscales: the PAS-PR Frequency scale (PAS-PR-F; frequency ratings for items 1–5), the PAS-PR Parent Impact scale (PAS-PR-PI; impact ratings for items 3 and 4), and the PAS-PR Child Impact scale (PAS-PR-CI; impact ratings for items 1, 2, and 5). These

Table 3
PAS-PR items.[a]

Item	Frequency		Impact[c]	
	$M(SD)$[c]	Percent endorsing[d]	$M(SD)$[b]	Percent endorsing[e]
1. Provide reassurance	2.73(1.00)	95.9%	1.25(1.00)	76.5% (child)
2. Facilitate avoidance	1.73(1.23)	76.5%	1.14(1.06)	66.6% (child)
3. Change in family routine	1.32(1.15)	68.0%	1.06(1.15)	62.0% (parent)
4. Family distress	1.64(1.21)	74.0%	1.12(1.02)	70.0% (parent)
5. Child distress without accommodation	1.56(1.30)	72.9%	1.08(1.13)	57.1% (child)

[a] The PAS-PR was administered to a subset of participants at the Brown site only ($n = 56$).
[b] Some impact items are rated for the impact on the child (child) and some are rated for the impact on the parent/family (parent).
[c] Frequency response scale is 0 (never) to 4 (always) and Impact response scale is 0 (none) to 4 (extreme).
[d] Percent of respondents reporting frequency of accommodation as "rarely" or greater (>1).
[e] Percent of respondents reporting impact of accommodation as "mild" or greater (>1).

subscales mirror those found in the PAS. Like the PAS-F, the PAS-PR-F was normally distributed, without significant skewness or kurtosis. Like the PAS-PI and PAS-CI, the PAS-PR-PI and PAS-PR-CI were significantly skewed (PAS-PR-PI skewness = 1.08, $Z = 3.20$, PAS-PR-CI skewness = .82, $Z = 2.40$) without significant kurtosis.

Nearly all of the participating parents (95.9%) endorsed some accommodation (score ≥1 on at least one item) on the PAS-PR (Table 3). The most frequently endorsed items were providing reassurance (Frequency: 95.9%, Child Impact: 76.5%), facilitating avoidance (Frequency: 76.5%, Child Impact: 66.6%), and family experience of distress during accommodation (Frequency: 74.0%, Parent Impact: 70.0%).

3.2.1. Reliability

The PAS-PR demonstrated good internal consistency (PAS-PR-F alpha = .84, PAS-PR-PI alpha = .82, PAS-PR-CI alpha = .80).

3.2.2. Convergent validity

All correlations are reported in Table 4. As predicted, the PAS-PR-F, PAS-PR-PI, and PAS-PR-CI were significantly positively correlated with clinician-rated anxiety severity (PARS), parent-reported anxiety symptoms (CBCL-Anx), and parent-rated anxiety impairment at home (CAISP-H). Additionally, PAS-PR-CI and PAS-PR-PI were significantly positively related to child-rated anxiety impairment at school (CAISC-Sch). The PAS-PR-CI was significantly positively related to parent-rated anxiety impairment at school (CAISP-Sch). The PAS-PR-F was significantly positively related to parent-reported anxiety symptoms (SCARED) and to child-rated anxiety impairment at home (CAISC-H). Additionally, the PAS-PR subscales showed significant relationships with the PAS ($r = .48–.64$).

Contrary to predictions, the PAS-PR scales were not significantly related to child-reported anxiety symptoms (MASC).

3.2.3. Discriminant validity

As hypothesized, the PAS-PR subscales were not significantly related to externalizing symptoms (CBCL-Ext). Also, the PAS-PR scales were not significantly related to child-reported depression symptoms, though the relationships were .19–.34.

3.3. Accommodation and parent symptoms

Parent self-report measures of anxiety and depressive symptoms (STAI, BDI-II) were administered to a subset of parents across both sites ($n = 41$). Given the low number of participants that completed the symptom measures and the PAS-PR ($n < 20$), we calculated relationships with parent symptoms for the PAS only. Correlations are reported in Table 4. The PAS-PI was significantly positively related to parent depression symptoms (BDI-II). The PAS-F and PAS-CI was not significantly correlated with parent depression (BDI-II) and anxiety (STAI-T) symptoms.

3.4. Accommodation and diagnostic presentation

Comparison of accommodation scores based on principal diagnosis (SAD, $N = 32$; GAD, $N = 51$; Social Phobia, $N = 12$) revealed no significant differences in accommodation (PAS, PAS-PR) across groups. Presence or absence of each anxiety disorder (SAD, GAD, or Social Phobia), including any instances of comorbid diagnoses, was also unrelated to accommodation scores. Additionally, accommodation (PAS, PAS-PR) was not significantly related to the presence of a comorbid externalizing disorder or to the total number of comorbidities.

4. Discussion

Family accommodation of anxious presentations in youth has been identified as a factor that contributes to the onset and maintenance of anxiety, yet research has been limited by the absence of psychometrically sound measures. The current study advanced efforts to measure family accommodation by distinguishing among the frequency of accommodating behaviors, their impact on the child, and their impact on his/her parents. Additionally, as the first clinician-rated (versus parent-report) measure of the accommodation of general anxiety symptoms, the PAS can be tailored to each individual child's symptom presentation rather than relying on parents to recognize specific forms of accommodation. The findings indicate that the PAS and the PAS-PR can be useful assessments of accommodation in anxious youth.

Overall, the hypotheses regarding the psychometric properties of the PAS and PAS-PR were supported. Each demonstrated good internal consistency, and the PAS showed excellent inter-rater reliability. The pattern of associations with measures of child psychopathology supported convergent and discriminant validity. Specifically, each PAS and PAS-PR subscale was more strongly associated with clinician- and parent-rated anxiety severity (across multiple measures) than with parent-reported externalizing problems and child-reported depressive symptoms. Although the PAS and PAS-PR subscales were not significantly associated with child-reported anxiety symptoms, prior studies have found that youth presenting for treatment under-report anxiety symptoms relative to parent report (e.g., Choudhury, Pimentel, & Kendall, 2003). Also, youth may experience fewer physical symptoms of anxiety and/or perceive their anxiety as less severe when symptoms are accommodated (e.g., when reassurance is provided).

Consistent with this possibility, the frequency of accommodation was associated with parent-rated impairment in home and school functioning, but with child-rated impairment in school functioning only. It makes sense that impairment would be less salient to youth when parents are present and accommodating anxiety symptoms (e.g., by facilitating avoidance of triggers) than when youth are at school and without access to parents. Further, parents who engage in accommodation may be more likely than youth to

Table 4
Correlations of the PAS and PAS-PR with study variables.

	1. PAS-freq	2. PAS-P impact	3. PAS-C impact	4. PAS-PR-freq[a]	5. PAS-PR-P impact[a]	6. PAS-PR-C impact[a]	7. PARS	8. CAISP-H	9. CAISP-SCH	10. CAISP-SOC	11. CAISC-H	12. CAISC-SCH	13. CAISC-SOC	14. CBCL-ANX	15. CBCL-EXT	16. SCARED	17. MASC[b]	18. CDI[b]	19. BDI	20. STAI
1.	–	.85*	.83*	.64*	.54*	.62*	.58*	.38*	.31*	.11	.19	.47*	.06	.41*	.27*	.38*	.10	.25	.41*	.22
2.		–	.71*	.60*	.60*	.65*	.43*	.36*	.38*	.25	.09	.46*	−.03	.35*	.24	.34*	.08	.33*	.48*	.36*
3.			–	.48*	.48*	.57*	.55*	.32*	.28	.12	.18	.58*	.07	.35*	.26	.26	.14	.35*	.31*	.17
4.				–	.84*	.84*	.39*	.63*	.28	.19	.40*	.35	.22	.56*	.19	.42*	.07	.19	c	c
5.					–	.84*	.38*	.46*	.30	.10	.14	.51*	.01	.46*	.15	.36	−.14	.26	c	c
6.						–	.41*	.50*	.48*	.29	.11	.50*	.16	.46*	.30	.35	.03	.34	c	c

PAS-Freq = Pediatric Accommodation Scale-Frequency; PAS-P Impact = Pediatric Accommodation Scale-Parent Impact; PAS-C Impact = Pediatric Accommodation Scale-Child Impact; PAS-PR-Freq = Pediatric Accommodation Scale-Parent Report-Frequency; PAS-PR-P-Impact = Pediatric Accommodation Scale-Parent Report-Parent Impact; PAS-PR-C-Impact = Pediatric Accommodation Scale-Parent Report-Child Impact; PARS = Pediatric Anxiety Rating Scale; CAISP-H = Child Anxiety Impact Scale-Parent Report-Home; CAISP-SCH = Child Anxiety Impact Scale-Parent Report-School; CAISP-SOC = Child Anxiety Impact Scale-Parent Report-Social; CAISC-H = Child Anxiety Impact Scale-Child Report-Home; CAISC-SCH = Child Anxiety Impact Scale-Child Report-School; CAISC-SOC = Child Anxiety Impact Scale-Child Report-Social; CBCL-Int = Child Behavior Checklist-Internalizing scale; CBCL-Ext = Child Behavior Checklist-Externalizing scale; SCARED = Screen for Child Anxiety and Related Emotional Disorders, parent report; MASC = Multidimensional Anxiety Scale for Children, child report; CDI = Child Depression Inventory, child self-report; BDI-II = Beck Depression Inventory, parent self-report; STAI-T = State Trait Anxiety Inventory-Trait subscale, parent self-report.

* $p < .01$.
[a] Measures were administered to a subset of the sample (PAS-PR at the Brown site only, $n = 56$; BDI-II and STAI administered at both sites, $n = 41$).
[b] Youth ages 8 and over completed child-report measures ($n = 70$).
[c] Limited data available for calculation ($n < 20$).

perceive anxiety as putting a strain on family relationships. In line with the present findings, family accommodation of pediatric OCD symptoms has been linked to parent – but not child-rated functional impairment (Merlo et al., 2009; Storch et al., 2007). When parents assume the burden of mental health problems, youth may not recognize their consequences.

Not surprisingly, the impact of family accommodation on parents (PAS-PI) was significantly associated with parent self-reported depressive symptoms, and more strongly associated with parent versus child depressive symptoms. There was also a medium-to-large non-significant association between the frequency of accommodation and parent self-reported depressive symptoms (which were assessed for a subset of participants). Depressive symptoms may decrease parent motivation to refrain from accommodation when it would be quicker or require less energy to "give in" to the child's unrealistic fears. Alternatively, accommodating the child's anxiety may result in depressed mood and/or limit parent availability to engage in pleasurable activities (e.g., socializing with other adults).

Similarly, clinician-rated frequency of accommodation and its impact on parents (PAS-F and PAS-PI) showed moderate, non-significant, associations with parent self-reported trait anxiety. These results are in line with a prior study that reported a non-significant association between family accommodation and parental trait anxiety in a clinical sample of youth with OCD (Flessner et al., 2011), although findings have been mixed depending on the specific measure administered (e.g., Flessner et al., 2011 used BSI-Anxiety items) and whether trait anxiety versus anxiety about the child's condition is assessed (e.g., Storch et al., 2009). Across studies (e.g., Caporino et al., 2012; Flessner et al., 2011; Peris et al., 2008), pediatric OCD symptoms have stronger relationships with family accommodation than with parent anxiety. Given the possibility that anxious parents may be as motivated as anxious youth to avoid certain situations (e.g., separation; social events), or to avoid their own child's distress, additional research is needed to clarify the relative influence of parent and child anxiety on family accommodation of non-OCD symptoms, and the direction of these relationships over time. The strength of relationships between impact of accommodation on parents and parent anxiety and depression symptoms underscores the importance of differentially measuring impact of accommodation on parents versus children.

Youth self-reported depressive symptoms were significantly associated with the impact of family accommodation on the child (PAS-CI). It may be that accommodating behaviors rated high in impact interfere substantially with the child's functioning in ways that are obvious to him/her and others, leading to decreased feelings of effectiveness and self-worth. Another possibility is that parents provide more substantial accommodation to youth who are experiencing both anxiety and comorbid mood symptoms. Finally, given the self-report format of the CDI, it is possible that youth responses on this measure did not differentiate depression symptoms from sad-appearing responses to anxiety (e.g., crying when anxious).

The PAS-PR exhibited large and significant associations with the PAS, providing evidence of convergent validity for the PAS-PR. This study is the first to directly compare clinician- and parent-report measures of family accommodation. Relationships to clinical characteristics (e.g., parent-rated impairment in home functioning) were generally consistent across the PAS and PAS-PR. However, expected relationships with symptom severity were stronger for the PAS than the PAS-PR, suggesting that there is some benefit to clinician assessment of accommodation. This pattern makes sense in light of the insight required for parents to identify their own accommodating behaviors; the possibility that parents with limited insight exhibit relatively high levels of accommodation (e.g., due to

lack of awareness of its long-term impact) raises concern about relying on parent report. Therefore, when measurement of family accommodation is central (e.g., for answering a specific research question), the clinician-rated PAS may be the most appropriate measure. However, in settings where accurate measurement is balanced by the need for feasibility (e.g., community mental health clinics), the PAS-PR can be an appropriate instrument.

Consistent with prior studies (e.g., Lebowitz et al., 2013; Peris et al., 2008), nearly all parents in this sample endorsed at least minimal accommodation (>95% per the PAS-F and PAS-PR-F). The most frequently endorsed accommodating behaviors were providing reassurance (97%, PAS; 96%, PAS-PR) and facilitating avoidance (52%, PAS; 77%, PAS-PR). Family experience of distress during accommodation was also endorsed at a relatively high rate (64%, PAS; 74%, PAS-PR). Approximately 60% of families with more than one child reported that siblings engage in some form of accommodation, indicating that siblings may also play an important role in accommodation behavior. It may be that targeting sibling accommodation is an important goal of family-based CBT for pediatric anxiety.

Family accommodation did not differ by youth demographics or by principal diagnosis, underscoring the idea that family accommodation has relevance to families of youth of all backgrounds, presenting with a range of anxiety disorders. In contrast to studies of pediatric OCD (e.g., Farrell, Waters, Milliner, & Ollendick, 2012; Storch, Lewin, Geffken, Morgan, & Murphy, 2010), family accommodation was not related to the number of comorbid diagnoses or to the presence of a comorbid externalizing disorder. This finding is counter to the suggestion that family accommodation is often forcefully imposed on parents by anxious youth who exhibit violent or disruptive behavior (e.g., Lebowitz et al., 2011). While it may be that parents experience heightened pressure to accommodate child anxiety symptoms when their efforts to refrain from accommodation are met with resistance (e.g., tantrums), other influences may be as or more salient. For example, parents may accommodate symptoms to minimize their child's distress and impairment in the short term, even if doing so maintains or exacerbates anxiety in the long term (e.g., Caporino et al., 2012).

Several limitations of this study warrant attention. First, not all parents completed all measures and the findings (e.g., related to parent self-report of anxiety and depression symptoms) warrant replication with a more conservative correction for multiple comparisons. A confirmatory factor analysis would confirm the PAS and PAS-PR subscales and warrants additional work. The sample was predominantly non-Hispanic White; given cultural differences in family interactions (e.g., "protective parenting," Domenech Rodriguez, Donovick, & Crowley, 2009), future studies should include diverse samples. Because this study was cross-sectional, studies with repeated assessments are needed to better understand parent and child influences on family accommodation over time, and to evaluate retest reliability as well as sensitivity of the PAS and PAS-PR to treatment-related change. Additionally, interpretation of scores on the PAS and PAS-PR is not yet optimally clinically useful based on the results of this study alone. Future investigations should aim to establish norms and/or clinically useful score cutoffs (e.g., mild/moderate/severe/extreme). Finally, although multi-informant assessment is a strength of the present study, some associations may have been influenced by shared method variance. Despite these limitations, the data provide preliminary support for the use of the PAS and PAS-PR to measure family accommodation of anxiety symptoms in youth. Given research suggesting that family accommodation influences outcomes of exposure-based treatment (e.g., Garcia et al., 2010), the PAS and PAS-PR may be useful in clinical practice as well as research.

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