



Published in final edited form as:

J Anxiety Disord. 2016 April ; 39: 71–78. doi:10.1016/j.janxdis.2016.03.001.

Parental Attitudes, Beliefs, and Understanding of Anxiety (PABUA): Development and Psychometric Properties of a Measure

Courtney Benjamin Wolk, PhD^a, Nicole E. Caporino, PhD^b, Susanna McQuarrie^b, Cara A. Settiani, PhD^c, Jennifer L. Podell, PhD^d, Sarah Crawley, PhD^d, Rinad S. Beidas, PhD^a, and Philip C. Kendall, PhD, ABPP^d

Courtney Benjamin Wolk: cbenja@upenn.edu; Nicole E. Caporino: ncaporino@gsu.edu; Susanna McQuarrie: Susanna.McQuarrie@gmail.com; Cara A. Settiani: settipa@nyspi.columbia.edu; Jennifer L. Podell: jenniferpodellphd@gmail.com; Sarah Crawley: sarahcrawleyphd@gmail.com; Rinad S. Beidas: rbeidas@upenn.edu; Philip C. Kendall: pkendall@temple.edu

^aCenter for Mental Health Policy and Services Research, Perelman School of Medicine, University of Pennsylvania. 3535 Market Street, Floor 3, Philadelphia, PA 19104

^bDepartment of Psychology, Georgia State University, P.O. Box 5010, Atlanta, GA 30302

^cColumbia University Clinic for Anxiety and Related Disorders, 3 Columbus Circle, Suite 1425, New York, NY 10019

^dDepartment of Psychology, Temple University, 1701 North 13th Street, Philadelphia, PA 19122

Abstract

The Parental Attitudes, Beliefs, and Understanding of Anxiety (PABUA) was developed to assess parental beliefs about their child's anxiety, parents' perceived ability to cope with their child's anxiety and to help their child manage anxious symptoms, and to evaluate parents' understanding of various parenting strategies in response to their child's anxiety. The study evaluated the PABUA in mother-child dyads ($N = 192$) seeking treatment for youth anxiety. Exploratory factor analysis yielded a three-factor solution and identified PABUA scales of Overprotection, Distress, and Approach (with Cronbach's alpha ranging from .67 to .83). Convergent and divergent validity of PABUA scales was supported by the pattern of associations with measures of experiential avoidance, beliefs related to children's anxiety, empathy, trait anxiety, and depressive symptoms; parent-reported family functioning; parent- and youth-reported anxiety severity; and parent-reported functional impairment ($n = 83$). Results provide preliminary support for the PABUA as a measure of parental attitudes and beliefs about anxiety, and future studies that investigate this measure with large and diverse samples are encouraged.

Author Note: Please direct correspondences to Courtney Benjamin Wolk, PhD: Center for Mental Health Policy and Services Research, Perelman School of Medicine, University of Pennsylvania. 3535 Market Street, Floor 3, Philadelphia, PA 19104; cbenja@upenn.edu; Tel: 215-746-6099; Fax: 215-349-8715.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Keywords

child; anxiety; parent; assessment; measure development

1. Introduction

Child anxiety disorders are common (e.g., Bernstein & Borchardt, 1991). In the general population and primary care settings, approximately 10 to 20% of children report distressing levels of anxiety (Chavira, Stein, Bailey, & Stein, 2004; Costello, Mustillo, Keeler, & Angold, 2004). Anxiety disorders often have a negative impact on children's functioning (Langley et al., 2004, 2014). Anxious youth are rated as less well liked by peers (Verduin & Kendall, 2008) and frequently exhibit difficulties in social relationships (e.g., Hartup, 1983; Greco & Morris, 2005; Strauss, Forehand, Smith, & Frame, 1986). Impaired academic achievement (e.g., King & Ollendick, 1989; Van Amerigen, Mancini, & Farvolden, 2003) and impaired future emotional well-being (e.g., Beidel, 1991; Feehan, McGee, & Williams, 1993) have also been reported. Most anxiety disorders identified in childhood do not abate over time (e.g., Keller et al., 1992; Pine, Cohen, Gurley, Brook, & Ma, 1998) and are associated with later depressive disorders (Cummings, Caporino, & Kendall, 2014), suicidal attempts and ideation (Brent et al., 1986; Rudd, Joiner, & Rumzek, 2004), and substance use (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Lopez, Turner, & Saavadra, 2005).

Parents with anxiety disorders have children with higher rates of anxiety disorders (Beidal & Turner, 1997; Merikangas, Dierker, & Szatmari, 1998; Turner, Beidel, & Costello, 1987), and parents of youth with anxiety exhibit increased rates of anxiety compared to the general population and other psychiatric groups such as youth with disruptive behavior disorders (Ginsburg & Schlossberg, 2002; Last, Hersen, Kazdin, Francis, & Grubb, 1987; Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991). The precise mechanisms of anxiety transmission in families are not well understood, though evidence exists to varying extents for genetic factors (Gregory & Eley, 2007) as well as environmental family factors including attachment, family functioning, parenting behaviors, and parental beliefs about the child (Drake & Ginsburg, 2012).

Parent behaviors such as over-control, overprotection, reinforcement of anxious behavior, and parental negativity have all been shown to be related to youth anxiety in several comprehensive reviews, and evidence also implicates the role of parental modeling of anxious behavior in the onset and exacerbation of anxious symptomology (Becker & Ginsburg, 2011; Bögels & Brechman-Troussaint, 2006; Fisak & Grills-Taquechel, 2007; Rapee, 1997; Wood, McLeod, Sigman, Hwang, & Chu, 2003). These relationships between parent and youth factors are hypothesized to be bidirectional and reciprocal (e.g., Rapee, 2001). Parent behaviors, in particular, parental overprotection, and parent-child interactions have been more consistently linked with youth anxiety compared to other family factors (Rapee, 2012).

Research generally indicates that the association between parental control and youth anxiety is stronger than the relationship between parental rejection or warmth and anxiety in youth (e.g., McLeod, Wood, & Weisz, 2007). Results from a longitudinal investigation of more

than 3,000 adolescents and young adults aged 14–24 at baseline revealed that baseline reports of parental overprotection predicted youth anxiety disorders, whereas parental rejection or lack of warmth did not significantly predict anxiety disorders (Beesdo, Pine, Lieb, & Wittchen, 2010). Using a multiple-informant aggregate scores approach, Bögels and van Melick (2004) found that parental overprotection was significantly related to youth anxiety and parental anxiety among youth aged 9–12 years. Mothers of youth with anxiety disorders have been found to be more overinvolved and overprotective during brief interaction tasks than mothers of nonanxious children (Gar & Hudson, 2008), indicating that mothers of anxious youth offer more unsolicited help and grant less autonomy to their children.

Parents of anxious youth also show greater state anxiety and emotional lability in response to a child experiencing distress in a situation that elicits anxiety for the child (Aschenbrand & Kendall, 2012). Recent evidence suggests that parent beliefs about anxiety are related to accommodation of youth anxiety, such that mothers who report more strongly believing that experiencing anxiety is harmful for children are more likely to report that they would allow their child to avoid feared situations (Settipani & Kendall, in press).

Parental modeling of anxious behaviors and verbal expression of anxious thoughts are potential mechanisms that may explain the environmental transmission of anxiety from parents to youth. Parents may influence the development of fears through the three main pathways posited by Rachman (1977): transmission of verbal threat information, vicarious learning experiences, and classical conditioning (providing the youth with direct aversive conditioning experiences). Such learning experiences may in part account for concordance between the particular anxiety disorders experienced by both parents and children (e.g., Hughes et al., 2009), as behaviors and cognitions regarding specific situations are modeled and expressed (e.g., fear of social situations versus worry regarding everyday situations), thereby putting the child at greater risk for developing anxiety about similar types of situations. For example, there is evidence supporting a role for specific modeling of social avoidance in the development of social anxiety, as adults with social phobia have retrospectively reported that their parents were more likely to avoid social interactions compared to parents of individuals without social phobia (Bruch & Heimberg, 1994) and such findings have been confirmed when additionally examining reports from mothers of individuals with social phobia (Rapee & Melville, 1997).

As parental beliefs and behaviors around overprotection, tolerance of distress, and approach/avoidance behavior may impact treatment completion, outcomes, and maintenance of gains (Morrissey-Kane, & Prinz, 1999), clinicians and treatment outcome researchers may benefit from measuring these constructs in the parents of anxious youth. These constructs have often been assessed using observational paradigms, which are expensive and time consuming to utilize, or general parenting measures not specific to anxiety (see McLeod et al., 2007 for a review). Additionally, much of the research to date has focused on examining these important parental cognitions in the general population or in youth with subclinical anxiety (Bögels & Brechman-Troussaint, 2006), though the association between parenting and youth anxiety has been shown to be significantly larger in diagnosed versus nonclinical samples (McLeod et al., 2007). One measure, the Parental Beliefs about Anxiety

Questionnaire (PBA-Q; Francis & Chorpita, 2009), was developed to address some of these limitations. The PBA-Q assesses parental perceptions that anxiety is harmful to the child, parental interpretations of ambiguous stimuli as threatening for the child, and ideas regarding how to react to the child's anxiety. While the PBA-Q fills an important gap in the existing literature, a broader measure of parental beliefs, attitudes, and understanding of anxiety may offer added value to clinicians working with anxious youth and their families in understanding the myriad of behaviors and beliefs that may contribute to the development and maintenance of a youth's anxiety symptomology. Thus, we strove to develop a measure that would not only assess important parental perceptions of and beliefs about a youth's anxiety, but also parents' perceived ability to cope with the experience of a child's anxiety, perceived ability to help the youth manage anxious symptoms, and understanding of the helpfulness of various parenting strategies in response to anxiety. The present study sought to develop and evaluate such a measure, the Parent Attitudes and Beliefs about Anxiety (PABUA) scale, for use with parents of youth presenting with anxiety symptomology. Specifically, we explored the factor structure of the PABUA and examined convergent and divergent validity of the refined measure.

2. Method

2.1. Participants

Participants were 192 mother-child dyads presenting to a university-based outpatient clinic for the treatment of child or adolescent anxiety. Youth (51% male) were 6–17 years old ($M = 11.23$, $SD = 3$) and primarily non-Hispanic White (81%; 5% Hispanic; 5% Black, 4% Asian, 5% other). Ninety seven percent were accompanied by biological mothers. With the exception of two youth with subclinical anxiety symptoms, all youth met criteria for at least one DSM-IV anxiety disorder.¹ The majority of youth had a principal diagnosis of generalized anxiety disorder (GAD, 42%), social phobia (21%), specific phobia (11%), or separation anxiety disorder (10%) based on the Anxiety Disorders Interview Schedule for DSM-IV, Child and Parent versions (ADIS-IV-C/P; Silverman & Albano, 1996). Families were excluded if they reported youth $IQ < 80$ or if the primary caregiver had mental retardation, psychosis, or other psychiatric disorders that would limit his/her ability to complete measures. No exclusions were made based on non-anxiety comorbidities, which included attention-deficit/hyperactivity disorder ($n = 35$), oppositional defiant disorder, ($n = 11$), major depressive disorder ($n = 11$), dysthymic disorder, ($n = 8$), and functional enuresis ($n = 2$), as long as anxiety was the primary presenting problem.

Mothers had a mean age of 42 years ($SD = 6$). The majority of mothers were married (81%), 9% were divorced, 5% were separated, 4% had never been married, and one was widowed. With regard to education level, 36% of mothers had earned a graduate degree, an additional 33% had graduated from college, 18% had completed some college, 10% had graduated from high school, and 3% did not report having a high school diploma. Approximately 70% of mothers were employed and 52% estimated their household income to be under \$80,000 per year. Most families (78%) had two parents living in the same home as the youth.

¹Youth with subclinical anxiety symptoms were included in the analyses, as the PABUA is considered relevant to all parents seeking anxiety treatment on behalf of their children.

2.2. Measures

Anxiety Disorders Interview Schedule, Child and Parent Versions (ADIS-C/P; Silverman & Albano, 1996)—The ADIS-C/P is a semi-structured interview that assesses anxiety and comorbid conditions in youth. For the present study, the ADIS-C/P was utilized to determine youth diagnostic status. The ADIS-C/P has demonstrated favorable psychometric properties (March & Albano, 1998). Inter-rater reliability (e.g., Chavira, Stein, Bailey, & Stein, 2004) and retest reliability (e.g., Silverman, Saavedra, & Pina, 2001) are high. Diagnosticians completed supervised practice administrations and met an inter-rater reliability criterion of 0.85 (Cohen's Kappa).

Parental Attitudes, Beliefs, and Understanding of Anxiety (PABUA)—The PABUA was developed using 45 items designed to query about expectations, beliefs, understanding, and behavior around parenting and youth anxiety. Items were generated using expert panel consensus (expert panel of 4; one doctoral-level psychologist and three advanced doctoral candidates in clinical psychology). Panel members were experienced in research and treatment of youth with anxiety disorders and their families. Initial items were edited and revised according to panel input.

Parental Acceptance and Action Questionnaire (PAAQ; Cheron, Ehrenreich, & Pincus, 2009)—The PAAQ is a measure of parental experiential avoidance, meaning a parent's unwillingness to witness his/her child's negative affect (Unwillingness subscale) as well as the parent's inability to manage his/her own reactions to the child's experience of negative emotion (Inaction scale). The PAAQ yields a total score in addition to the two scale scores. The PAAQ has demonstrated temporal stability, $r = .68-.74$, internal consistency across subscales ($\alpha = .64-.65$), and criterion validity (Cheron et al., 2009). The PAAQ has accounted for a significant amount of variance in youth anxiety and related psychopathology, as rated by parents and clinicians (Cheron et al., 2009). Cronbach's alpha for the current sample was .64 for the PAAQ total score, .61 for Inaction, and .52 for Unwillingness.

Parent Beliefs about Anxiety Questionnaire (PBA-Q; Francis & Chorpita, 2010)—The PBA-Q is a 17-item parent-report questionnaire that assesses parental beliefs about their child's anxiety. In particular, it captures beliefs regarding negative consequences occurring as a result of the child experiencing anxiety, the child experiencing harm due to feeling scared or uncomfortable, and ambiguous stimuli representing opportunities for threat or harm to the youth. Items are rated on a Likert-type scale ranging from 0 (strongly disagree) to 3 (strongly agree) and examples include, "It scares me when my child is nervous" and "When my child is nervous, I worry that he/she might be mentally ill." The PBA-Q has shown good internal consistency and concurrent validity with multiple measures of parent and youth anxiety in a clinic-referred sample (Francis & Chorpita, 2010). Cronbach's alpha for the current subsample was .80.

Interpersonal Reactivity Index (IRI; Davis, 1980)—The Perspective-Taking (PT) and Empathic Concern (EC) subscales of the IRI were used to assess parental empathy. Each scale required parents to respond to seven statements using a 5-point Likert-type scale. The

PT scale reflects the cognitive component of empathy and consists of items that assess the tendency to spontaneously adopt the point of view of others (e.g., “When I’m upset at someone, I usually try to ‘put myself in his shoes’ for a while”). The EC scale reflects the affective component of empathy and consists of items that assess the degree to which the respondent experiences feelings of warmth, compassion, and concern for others (e.g., “I am quite often touched by things that I see happen”). The PT and EC scales have shown adequate internal consistency ($\alpha = .70-.78$) and test-retest reliability ($r = .61-.72$; Davis, 1980), and convergent and divergent validity have been established (Davis, 1983). As in prior studies (e.g., Caporino et al., 2012; Laible et al., 2004), items from these scales were combined to form a single measure of empathy, with Cronbach’s alpha of .77.

Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983)—The FAD consists of 60 items that assess family functioning based on the McMaster model (Epstein, Ryan, Bishop, Miller, & Keitner, 2003), which describes features of family organization, structure, and communication that have been shown to be related to family health. The FAD has shown acceptable psychometric properties (e.g., Miller, Epstein, Bishop, & Keitner, 1985). The current study used the General Functioning Scale and Cronbach’s alpha was .87.

State-Trait Anxiety Inventory (STAI; Spielberger, 1983)—The STAI is an adult self-report questionnaire comprised of two, 20-item scales designed to measure state and trait anxiety. Response options range from 1 (not at all) to 4 (very much so). The STAI has good psychometric properties (Spielberger, 1983). Parents completed the Trait scale, which instructs individual to rate how they generally feel. Given that this scale may include items that tap depression, a subset of 7 items specific to anxiety were used in the current study (Bieling, Antony, & Swinson, 1998). Cronbach’s alpha was .74.

Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996)—The BDI-II is a 21-item adult self-report measure of depressive symptoms experienced over the past two weeks. The BDI-II has excellent psychometric properties (e.g., Beck et al., 1996; Storch, Roberti, & Roth, 2004; Weeks & Heimberg, 2005). Cronbach’s alpha for the present study was .92.

Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings, & Conners, 1997)—The MASC is a 39-item questionnaire that assesses the severity of general, social, and separation anxiety symptoms in youth. There are parallel parent- and child-report forms. The MASC demonstrates strong reliability (i.e., internal consistency, test-retest stability) and validity (e.g., March et al., 1997; Rynn et al., 2006; Villabo, Gere, Torgersen, March, & Kendall, 2012). In this subsample, internal consistency for the MASC total score was .90 for youth report and .91 for parent report.

Child Anxiety Impact Scale-Parent (CAIS-P; Langley, Bergman, McCracken, & Piacentini et al., 2004; Langley et al., 2013)—The CAIS-P is a 27-item parent-report measure of anxiety-related interference in children’s social, academic, and family functioning. The CAIS-P has been shown to have good internal consistency, construct validity, and discriminant validity (Langley et al., 2004; Langley et al., 2013). In the current study, Cronbach’s alpha was .87.

2.3. Procedure

Study procedures were approved by the Institutional Review Board. Families seeking outpatient treatment for child/adolescent anxiety over approximately 44 months were invited to participate and documentation of consent/assent was obtained. The ADIS-IV-C/P was administered to all parents and youth separately by diagnosticians who completed supervised practice administrations with actual clients, and met an inter-rater reliability criterion of .85 (Cohen's Kappa). All parents also completed the PABUA. A subset of parents ($n = 83$) completed all other study measures and their children completed the MASC; there were no significant differences in age, gender, or anxiety severity between youth whose parents did and did not complete these measures (p -values ranged from .54 to .9).

In our development of the PABUA, we began by reviewing existing relevant measures (e.g., measures of parenting and family functioning) and then drafted an initial pool of items based on our experience working with families of youth with anxiety. We developed a list of potential items that captured relevant matters commonly observed around parenting youth with anxiety that were not already assessed by existing measures. For example, items that captured over-involvement/intrusiveness, autonomy granting/trust, knowledge, and experiential avoidance of anxiety. These items were generated by an expert panel. Items were then reviewed by additional colleagues with expertise in the field and refined based on feedback. Any discrepancies were resolved via discussion to reach consensus.

2.4. Analytic Plan

Exploratory factor analysis (EFA) with maximum likelihood estimation determined the factor structure of the PABUA. A parallel analysis of eigenvalues (Hayton, Allen, & Scarpello, 2004; Zwick & Velicer, 1986) was completed in R (R Core Team, 2013) to determine the number of factors to extract. Parallel analysis is Monte Carlo simulation that involves comparing eigenvalues from the observed data to those from randomly generated datasets of the same size and number of variables; it is preferred to the scree test and Kaiser's rule (of eigenvalue >1), which frequently overestimate the number of factors. Promax rotation (which allows factors to correlate) was used to evaluate the solution. Items that loaded above $|.40|$ on one factor and below $|.30|$ on the other factors were retained. Item redundancy was examined using average inter-item correlations. Pearson correlation coefficients were calculated to evaluate convergent and divergent validity for each PABUA scale using parent self-reported experiential avoidance (PAAQ), beliefs related to children's anxiety (PBA-Q), empathy (IRI), trait anxiety (STAI), and depressive symptoms (BDI-II); parent-reported family functioning (FAD); parent- and child-reported youth anxiety severity (MASC and MASC-P); and parent-reported functional impairment (CAIS-P). Missing data were minimal (i.e., no more than 3 observations across all participants for a given variable); for each participant, responses across all items were averaged to calculate total scores.

3. Results

3.1. Exploratory Factor Analysis

Frequency distributions of the initial 45 items were examined and 9 items that departed drastically from normal distribution (i.e., skewness > |2| or kurtosis > |7|) were dropped. At each subsequent stage of measure development, factorability of the data was evaluated using the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO, range = .75 to .78; Kaiser, 1974) and Bartlett's (1950) test of sphericity (all p -values < .001). Based on the results of a parallel analysis (Hayton, Allen, & Scarpello, 2004; Zwick & Velicer, 1986), a four-factor solution was examined first. Six low-loading (e.g., "Much of my child's anxiety is inherited") and six cross-loading items (e.g., "If my child is anxious, it is a reflection on my parenting") were dropped, and the remaining 24 items were again submitted to parallel analysis followed by an EFA. One factor was not considered empirically-defined because it had fewer than three "marker" items (Brown, 2006); items loading on this factor (e.g., "I am not responsible for my child's anxiety") were dropped. A final EFA showed that the remaining 21 items loaded meaningfully on three factors and accounted for approximately 43% of the total variance.²

The structure and pattern matrices (i.e., factor loadings) are in Tables 1 and 2, respectively. The factor labeled Overprotection consists of 11 items that assess parents' beliefs that youth should be protected from feeling anxious (eigenvalue = 4.30, mean inter-item correlation = .32). Sample items include "It is important that I protect my child from feeling anxious" and "A good parent will not push his/her child to do things that make him/her nervous." The factor labeled Distress consists of six items that assess parental distress (e.g., guilt, anxiety/discomfort, helplessness) and avoidance associated with the youth's anxiety (eigenvalue = 2.78, mean inter-item correlation = .28). Sample items include "If my child had different parents, perhaps he/she would not be so anxious" and "I feel uncomfortable when my child feels anxious." The factor labeled Approach consists of four items that assess parents' beliefs in the value of allowing youth autonomy, and modeling and encouraging them to approach anxiety-provoking situations (eigenvalue = 2.02, mean inter-item correlation = .34). Sample items include "A good parent allows his/her child to have freedom and experience things on his/her own" and "It is important for children to see adults cope with anxiety." Each scale was internally consistent (Overprotection, Cronbach's alpha = .83 [i.e., good internal consistency]; Distress, Cronbach's alpha = .70 [i.e., acceptable internal consistency]; Approach, Cronbach's alpha = .67 [i.e., fair internal consistency]). Inter-factor correlations (reported in Table 3) were small.

3.2. Convergent and Divergent Validity

It was hypothesized that PABUA Overprotection would be more strongly associated with PAAQ Unwillingness than Inaction, and that PAUBA Distress would be more strongly associated with PAAQ Inaction than Unwillingness. It was also hypothesized that PABUA Distress, in particular, would be associated with STAI-A and BDI-II but that none of the

²All analyses were repeated using varimax rotation. With the exception of two additional items, one loading on Overprotection and the other loading on Distress, the factor structure was identical.

PABUA scales would be redundant with STAI-A or BDI-II (all coefficients $< .8$). We also hypothesized that the PABUA would not be strongly associated/redundant with general family functioning (coefficients $< .8$) and that the PABUA scales would be more strongly associated with the PBA-Q and relevant PAAQ scales than with general family functioning. Finally, the PABUA scales were hypothesized to be distinct from parental empathy (i.e., IRI), youth anxiety severity (i.e., MASC-P and MASC) and functional impairment (CAIS-P).

Table 4 displays bivariate correlations (Pearson's r) among PABUA scales and study variables. The PABUA Overprotection scale was significantly associated with the PAAQ Unwillingness scale ($r = .43, p < .01$) and not the PAAQ Inaction subscale ($r = .08, ns$) whereas the PABUA Distress scale was more strongly associated with the PAAQ Inaction subscale ($r = .39, p < .01$) than the PAAQ Unwillingness subscale ($r = .03, ns$). The PABUA Approach scale was not related to any of the PAAQ scores ($r = .03$ to $.08, ns$). The PBA-Q (which measures parents' negative beliefs about their child's experience of anxiety) was negatively associated with the PABUA Approach scale ($r = -.34, p < .01$) and positively associated with PABUA Overprotection ($r = .26, p < .05$), but was not related to PABUA Distress ($r = .1, ns$). None of the PABUA scales were related to general family functioning (FAD; $r = -.02$ to $.20, ns$) or to parent empathy (IRI; $r = .03$ to $.15, ns$). Only PABUA Distress was significantly related to parent self-reported trait anxiety (STAI-A; $r = .22, p < .05$) and depressive symptoms (BDI-II; $r = .22, p < .05$). None of the PABUA scales were significantly related to parent- or youth-reported anxiety severity (MASC-P and MASC; $r = .02$ to $.19, ns$), or to parent-reported functional impairment (CAIS-P; $r = .06$ to $.15, ns$).

4. Discussion

Exploratory factor analysis indicated that a three-factor solution best fit the data for the PABUA, and analyses of convergent and divergent validity support the measure's unique contribution to the literature. The three factors were Overprotection, Distress, and Approach. The Overprotection factor consists of 11 items that assess parents' beliefs that they should protect youth from experiencing anxious feelings. Additional items tap into the idea that youth should be allowed to avoid anxiety-provoking situations and general enmeshment in the parent-child relationship. The factor labeled Distress consists of six items that assess parental feelings of discomfort about and personal responsibility for a youth's anxiety. Finally, the Approach factor consists of four items that assess parents' beliefs in the value of allowing youth autonomy, and modeling and encouraging them to approach anxiety-provoking situations.

Convergent and divergent validity was demonstrated. The PABUA Overprotection scale was moderately and positively associated with a parent's unwillingness to witness his/her child's negative affect (i.e., PAAQ Unwillingness), and not associated with a parent's inability to manage his/her own reactions to the child's experience of negative emotion (i.e., PAAQ Inaction). Overprotection was also significantly, albeit weakly, positively correlated with parent's negative beliefs about youth's experience of anxiety (i.e., PBA-Q). Given that the PABUA Overprotection factor taps into parental beliefs that youth should be protected from

experiencing anxiety and parents should help to protect youth in this manner, these findings are not surprising.

The PABUA Distress scale was more strongly associated with a parent's inability to manage his/her own reactions to the youth's experience of negative emotion (i.e., PAAQ Inaction) than a parent's unwillingness to witness his/her child's negative affect (i.e., PAAQ Unwillingness). A parent's inability to manage his/her own reactions to the youth's experience of negative emotion is consistent with the Distress factor, which includes questions regarding parental feelings of discomfort about and personal responsibility for a youth's anxiety. PABUA Distress was the only PABUA factor that was significantly related to parent self-reported trait anxiety (i.e., STAI-A) and depressive symptoms (i.e., BDI-II), also consistent with the construct of parental distress. The relationship between PABUA Distress and a parent's inability to manage his/her own reaction to the youth's experience of negative emotion (i.e., PAAQ Inaction) was stronger than the relationships of PABUA Distress to parent anxiety (i.e., STAI-A) and depression (i.e., BDI-II). Distress was not significantly associated with the PBA-Q, suggesting the Distress scale assesses true parental distress and not more general negative beliefs about anxiety.

The PABUA Approach scale was negatively associated with the PBA-Q, suggesting that parents with greater negative beliefs about their child's experience of anxiety reported less positive beliefs about encouraging youth to approach anxiety-provoking situations, as would be expected. PABUA Approach was not significantly related to parental experiential avoidance (i.e., PAAQ). The construct of approach is distinct from overprotection in that approach is more strongly related to psychoeducation about anxiety and knowledge that youth experience benefit from exposure to feared situations. In contrast, overprotection relates to parents' beliefs about the extent to which they should protect their child from what they perceive to be potentially harmful situations.

None of the PABUA scales were related to parent empathy (i.e., IRI), general family functioning (i.e., FAD), parent- or child-reported anxiety severity (i.e., MASC-P and MASC), or parent-reported functional impairment (i.e., CAIS-P). This suggests that the PABUA scales tap parent characteristics that are specific to youth anxiety (i.e., distinct from family health broadly and from parents' general experience of emotion congruent with the perceived welfare of others) and is appropriate for parents of youth with anxiety across a range of symptom severity and impairment. Overall, results suggest that the 21 items retained in the PABUA assess a range of parental attitudes, beliefs, and understanding of anxiety, adding value beyond existing measures. For example, the PBA-Q focuses heavily on parent's negative affect and distress around their child's experience of anxiety. As a comprehensive measure focusing on overprotection and approach, in addition to distress, the PABUA may have greater utility for assessing specific dimensions of parenting factors relevant to clinical research and treatment with anxious youth. There have been mixed findings regarding the benefit of involving parents in youth anxiety treatment (see Wei & Kendall, 2014 for a review); it is possible that the wide variety of family and parent factors addressed in these approaches accounts for the mixed results, suggesting the need for greater attention to evidence-based relationships between youth anxiety and specific parent factors. Indeed, the value of involving parents in CBT for youth anxiety likely depends on the types

of parent factors addressed in these interventions (Manassis et al., 2014). Future research is needed to empirically investigate whether directly addressing parent factors assessed by the PABUA enhances youth anxiety treatment.

Although the present study included rigorous diagnostic assessment and a range of measures to assess convergent and divergent validity, limitations merit mentioning. First, the sample size was modest, though adequate for factor analysis (see MacCallum, Widaman, Zhang, & Hong, 1999). Second, we only included PABUA reports from mothers. Future studies that use father reports are encouraged. Third, the sample included predominantly Caucasian youth aged 6 to 17 seeking treatment for anxiety and families were moderate-to-high SES and educated. The generalizability of the findings are thus limited. However, the sample included a number of youth with non-anxiety comorbidities, contributing to the real-world application of these findings.

The present results support the PABUA as a measure of parental attitudes and beliefs about anxiety, specifically assessing factors of Overprotection, Distress, and Approach. Future studies would benefit from confirming the factor structure of the PABUA with samples of anxious and non-anxious youth. Additionally, studies that examine the PABUA's association with key demographic and treatment relevant factors, such as youth primary diagnosis, age and treatment response, are important next steps. For clinicians, the PABUA may prove useful in assessing important parental beliefs and attitudes related to youth and anxiety. It may also aid clinicians in developing family-based treatment goals and identifying targeted strategies for families to facilitate engagement in the treatment process. For example, a mother who endorses a number of items on the PABUA Distress scale may benefit from parallel parent sessions with her child's clinician and/or an evaluation to determine if individual treatment is warranted.

Acknowledgments

This work was supported by NIMH grants to CBW (MH103955), PCK (HD080097; MH86438; MH63747), and RSB (MH099179). Dr. Beidas receives royalties from Oxford University Press and has served as a consultant for Kinark Child and Family Services.

References

- Aschenbrand SG, Kendall PC. The effect of perceived child anxiety status on parental latency to intervene with anxious and nonanxious youth. *Journal of Consulting and Clinical Psychology*. 2012; 80(2):232–238. [PubMed: 22309473]
- Bartlett MS. Tests of significance in factor analysis. *British Journal of Statistical Psychology*. 1950; 3:77–85.
- Beck, AT.; Steer, RA.; Brown, GK. *Manual for the Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation; 1996.
- Becker K, Ginsburg G. Maternal anxiety, behaviors, and expectations during a behavioral task: Relation to children's self-evaluations. *Child Psychiatry and Human Development*. 2011; 42:320–333. [PubMed: 21279544]
- Beesdo K, Pine DS, Lieb R, Wittchen HU. Incidence and risk patterns of anxiety and depressive disorders and categorization of generalized anxiety disorder. *Archives of General Psychiatry*. 2010; 67:47–57. [PubMed: 20048222]
- Beidel DC. Social phobia and overanxious disorder in school-aged children. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1991; 30:545–552. [PubMed: 1890086]

- Beidel DC, Turner SM. At risk for anxiety: I. Psychopathology in the offspring of anxious parents. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1997; 36:918–924. [PubMed: 9204669]
- Bernstein GA, Borchardt CM. Anxiety disorders of childhood and adolescents: A review. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1991; 30:519–532. [PubMed: 1890084]
- Bieling PJ, Antony MM, Swinson RP. The State--Trait Anxiety Inventory, Trait version: structure and content re-examined. *Behaviour Research and Therapy*. 1998; 36(7):777–788. [PubMed: 9682533]
- Bögels SM, Brechman-Troussaint ML. Family issues in child anxiety: Attachment, family functioning, parental reading and beliefs. *Clinical Psychology Review*. 2006; 26:834–856. [PubMed: 16473441]
- Bögels SM, Melick M. The relationship between child-report, parent self-report, and partner report of perceived parental rearing behaviors and anxiety in children and parents. *Personality and Individual Differences*. 2004; 37:1583–1596.
- Brent DA, Kalas R, Edelbrock C, Costello AJ, Dulcan MK, Conover N. Psychopathology and its relationship to suicidal ideation in childhood and adolescence. *Journal of the American Academy of Child Psychiatry*. 1986; 25:666–673. [PubMed: 3760416]
- Introduction to CFA. In: Brown, TA., editor; Kenny, DA., editor. *Confirmatory factor analysis for applied research*. New York, NY: Guilford Press; 2006. p. 40-102.
- Bruch MA, Heimberg RG. Differences in perceptions of parental and personal characteristics between generalized and nongeneralized social phobics. *Journal of Anxiety Disorders*. 1994; 8:155–168.
- Caporino NE, Morgan J, Beckstead J, Phares V, Murphy TK, Storch EA. A structural equation analysis of family accommodation in pediatric obsessive-compulsive disorder. *Journal of Abnormal Child Psychology*. 2012; 40(1):133–143. [PubMed: 21842196]
- Chavira D, Stein M, Bailey K, Stein M. Child anxiety in primary care: Prevalent but untreated. *Depression and Anxiety*. 2004; 20:155–164. [PubMed: 15643639]
- Chavira DA, Stein MB, Baily K, Stein MT. Comorbidity of generalized social anxiety disorder and depression in a pediatric primary care sample. *Journal of Affective Disorders*. 2004; 80:163–171. [PubMed: 15207929]
- Cheron DM, Ehrenreich JT, Pincus DB. Assessment of parental experiential avoidance in a clinical sample of children with anxiety disorders. *Child Psychiatry and Human Development*. 2009; 40(3):383–403. [PubMed: 19280337]
- Costello E, Mustillo S, Erkanli A, Keeler G, Angold A. Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*. 2003; 60:837–844. [PubMed: 12912767]
- Costello, E.; Mustillo, S.; Keeler, G.; Angold, A. Prevalence of Psychiatric Disorders in Children and Adolescents. In: Levine, B.; Pettila, J.; Hennessey, K., editors. *Mental Health Services: A Public Health Perspective*. New York, NY: Oxford University Press; 2004. p. 111-128.
- Cummings CM, Caporino NE, Kendall PC. Comorbidity of anxiety and depression in children and adolescents: 20 years later. *Psychological Bulletin*. 2014; 140(3):816–845. [PubMed: 24219155]
- Davis M. A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*. 1980; 10:85.
- Davis MH. Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*. 1983; 44:113–126.
- Drake KL, Ginsberg GS. Family factors in the development, treatment, and prevention of childhood anxiety disorders. *Clinical Child and Family Psychology Review*. 2012; 15(2):144–162. [PubMed: 22241071]
- Feehan M, McGee R, Williams S. Mental health disorders from age 15 to age 18 years. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1993; 32:1118–1126. [PubMed: 8282655]
- Epstein NB, Baldwin LM, Bishop DS. The McMaster family assessment device. *Journal of Marital and Family Therapy*. 1983; 9(2):171–180.
- Epstein, NB.; Ryan, CE.; Bishop, DS.; Miller, IW.; Keitner, GI. *The McMaster model: A view of healthy family functioning*. Guilford Press; 2003.

- Fisak B, Grills-Taquechel AE. Parental modeling, reinforcement, and information transfer: Risk factors in the development of child anxiety? *Clinical Child and Family Psychology*. 2007; 10:213–231.
- Francis SE, Chorpita BF. Development and evaluation of the parental beliefs about anxiety questionnaire. *Journal of Psychopathology and Behavioral Assessment*. 2010; 32(1):138–149.
- Gar NS, Hudson JL. An examination of the interactions between mothers and children with anxiety disorders. *Behavior Research and Therapy*. 2008; 46:1266–1274.
- Ginsburg GS, Schlossberg MC. Family-based treatment of childhood anxiety disorders. *International Review of Psychiatry*. 2002; 14:143–154.
- Greco L, Morris T. Factors influencing the link between social anxiety and peer acceptance: Contributions of social skills and close friendships during middle childhood. *Behavior Therapy*. 2005; 36:197–205.
- Gregory AM, Eley TC. Genetic influences on anxiety in children: What we've learned and where we're heading. *Clinical Child and Family Psychology Review*. 2007; 10:199–212. [PubMed: 17503180]
- Hartup, WW. Peer relations. In: Mussen, P., editor. *Handbook of child psychology*. New York: John Wiley; 1983. p. 103196
- Hayton JC, Allen DG, Scarpello V. Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*. 2004; 7(2):191–205.
- Hughes AA, Furr JM, Sood ED, Barmish AJ, Kendall PC. Anxiety, mood, and substance use disorders in parents of children with anxiety disorders. *Child Psychiatry and Human Development*. 2009; 40:405–419. [PubMed: 19229606]
- Kaiser HF. An index of factorial simplicity. *Psychometrika*. 1974; 39:31–36.
- Keller M, Lavori P, Wunder J, Beardslee W, Schwartz C, Roth J. Chronic course of anxiety disorders in children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1992; 31:595–599. [PubMed: 1644719]
- King NJ, Ollendick TH. Children's anxiety and phobic disorders in school settings: Classification, assessment, and intervention issues. *Review of Educational Research*. 1989; 59:431–470.
- Laible DJ, Carlo G, Roesch SC. Pathways to self-esteem in late adolescence: the role of parent and peer attachment, empathy, and social behaviours. *Journal of Adolescence*. 2004; 27:703–716. [PubMed: 15561312]
- Langley AK, Bergman RL, McCracken J, Piacentini JC. Impairment in childhood anxiety disorders: Preliminary examination of the child anxiety impact scale-parent version. *Journal of Child & Adolescent Psychopharmacology*. 2004; 14:105–114.
- Last CG, Hersen M, Kazdin A, Orvaschel H, Perrin S. Anxiety disorders in children and their families. *Archives of General Psychiatry*. 1991; 48:928–935. [PubMed: 1929763]
- Langley AK, Falk A, Peris T, Wiley JF, Kendall PC, Ginsburg G, Piacentini J. The child anxiety impact scale: Examining parent- and child-reported impairment in child anxiety disorders. *Journal of Clinical Child and Adolescent Psychology*. 2014; 43(4):579–591. [PubMed: 23915200]
- Last CG, Hersen M, Kazdin AE, Francis G, Grubb HJ. Psychiatric illness in the mothers of anxious children. *American Journal of Psychiatry*. 1987; 144:1580–1583. [PubMed: 3688283]
- Last CG, Hersen M, Kazdin AE, Orvaschel H, Perrin S. Anxiety disorders in children and their families. *Archives of General Psychiatry*. 1991; 48:928–34. [PubMed: 1929763]
- Lopez B, Turner R, Saavedra L. Anxiety and risk for substance dependence among late adolescents/young adults. *Journal of Anxiety Disorders*. 2005; 19:275–294. [PubMed: 15686857]
- MacCallum RC, Widaman KF, Zhang S, Hong S. Sample size in factor analysis. *Psychological Methods*. 1999; 4:84–99.
- Manassis K, Lee TC, Bennett K, Zhao XY, Mendlowitz S, Duda S, ... Wood JJ. Types of parental involvement in CBT with anxious youth: A preliminary meta-analysis. *Journal of Consulting and Clinical Psychology*. 2014; 82:1163–1172. [PubMed: 24841867]
- March JS, Albano A. New developments in assessing pediatric anxiety disorders. *Advances in Clinical Child Psychology*. 1998; 20:213–241.

- March JS, Parker JD, Sullivan K, Stallings P, Conners CK. The Multidimensional Anxiety Scale for Children (MASC): factor structure, reliability, and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1997; 36(4):554–565. [PubMed: 9100431]
- Miller IW, Epstein NB, Bishop DS, Keitner GI. The McMaster family assessment device: reliability and validity. *Journal of Marital and Family Therapy*. 1985; 11(4):345–356.
- McLeod BD, Wood JJ, Weisz JR. Examining the association between parenting and child anxiety: A meta-analysis. *Clinical Psychology Review*. 2007; 27:155–172. [PubMed: 17112647]
- Merikangas KR, Dierker LC, Szatmari P. Psychopathology among offspring of parents with substance abuse and/or anxiety disorders: A high risk study. *Journal of Child Psychology and Psychiatry*. 1998; 37:711–720. [PubMed: 9690934]
- Morrissey-Kane E, Prinz RJ. Engagement in child and adolescent treatment: The role of parental cognitions and attributions. *Clinical Child and Family Psychology Review*. 1999; 2:183–198. [PubMed: 11227074]
- Pine D, Cohen P, Gurley D, Brook J, Ma Y. Risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Archives of General Psychiatry*. 1998; 55:56–64. [PubMed: 9435761]
- R Core Team. R Foundation for Statistical Computing. Austria: Vienna; 2013. R: A language and environment for statistical computing. ISBN 3-900051-07-0, URL <http://www.R-project.org/>
- Rachman S. The conditioning theory of fear-acquisition: A critical examination. *Behavior Research and Therapy*. 1977; 15:375–387.
- Rapee RM. Potential role of childrearing practices in the development of anxiety and depression. *Clinical Psychology Review*. 1997; 17:47–67. [PubMed: 9125367]
- Rapee, RM. The development of generalised anxiety. In: Vasey, MW.; Dadds, MR., editors. *The developmental psychopathology of anxiety*. New York: Oxford University Press; 2001. p. 481-503.
- Rapee RM. Family factors in the development and management of anxiety disorders. *Clinical Child and Family Psychology Review*. 2012; 15:69–80. [PubMed: 22116624]
- Rapee RM, Melville LF. Recall of family factors in social phobia and panic disorder: Comparison of mother and offspring reports. *Depression and Anxiety*. 1997; 5:7–11. [PubMed: 9250435]
- Rudd D, Joiner T, Rumzek H. Childhood diagnoses and later risk for multiple suicide attempts. *Suicide and Life-Threatening Behavior*. 2004; 34:113–125. [PubMed: 15191268]
- Rynn MA, Barber JP, Khalid-Khan S, Siqueland L, Dembiski M, McCarthy KS, Gallop R. The psychometric properties of the MASC in a pediatric psychiatric sample. *Journal of Anxiety Disorders*. 2006; 20(2):139–157. [PubMed: 16464701]
- Settipani CA, Kendall PC. The effect of child distress on accommodation of anxiety: Relations with maternal beliefs, empathy, and anxiety. *Journal of Clinical Child and Adolescent Psychology*. in press.
- Silverman, WK.; Albano, AM. *Anxiety Disorders Interview Schedule for Children*. San Antonio, TX: Psychological Corporation; 1996.
- Silverman WK, Saavedra LM, Pina AA. Test-retest reliability of anxiety symptoms and diagnoses with the Anxiety Disorders Interview Schedule for *DSM-IV*: Child and parent versions. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2001; 40:937–944. [PubMed: 11501694]
- Spielberger, CD. *Manual for the State-Trait Anxiety Inventory STAI (Form Y)*. Palo Alto, CA: Consulting Psychologists Press; 1983.
- Storch EA, Roberti JW, Roth DA. Factor structure, concurrent validity, and internal consistency of the Beck Depression Inventory-Second edition in a sample of college students. *Depression and Anxiety*. 2004; 19:187–189. [PubMed: 15129421]
- Strauss CC, Forehand R, Smith K, Frame CL. The association between social withdrawal and internalizing problems of children. *Journal of Abnormal Child Psychology*. 1986; 14:525–535. [PubMed: 3782624]
- Turner SM, Beidel DC, Costello A. Psychopathology in the offspring of anxiety disorder patients. *Journal of Consulting and Clinical Psychology*. 1987; 55:229–235. [PubMed: 3571678]
- Van Amerigen M, Manicini C, Farvolden P. The impact of anxiety disorders on educational achievement. *Journal of Anxiety Disorders*. 2003; 17:561–571. [PubMed: 12941366]

- Verduin TL, Kendall PC. Peer perceptions and liking of children with anxiety disorders. *Journal of Abnormal Child Psychology*. 2008; 36:459–469. [PubMed: 18027084]
- Villabø M, Gere M, Torgersen S, March JS, Kendall PC. Diagnostic efficiency of the child and parent versions of the Multidimensional Anxiety Scale for Children. *Journal of Clinical Child and Adolescent Psychology*. 2012; 41(1):75–85. [PubMed: 22233247]
- Weeks JW, Heimberg RG. Evaluation of the psychometric properties of the Beck Depression Inventory in a non-elderly adult sample of patients with generalized anxiety disorder. *Depression and Anxiety*. 2005; 22:41–44. [PubMed: 15965997]
- Wei C, Kendall PC. Parental involvement: Contribution to childhood anxiety and its treatment. *Clinical Child and Family Psychology Review*. 2014; 17:319–339. [PubMed: 25022818]
- Wood J, McLeod BD, Sigman M, Hwang W, Chu BC. Parenting and child anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry*. 2003; 44:134–151. [PubMed: 12553416]
- Zwick WR, Velicer WF. Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*. 1986; 99(3):432–442.

Highlights

- We developed the Parental Attitudes, Beliefs, and Understanding of Anxiety (PABUA)
- We evaluated the PABUA in 192 mother-child dyads seeking treatment for child anxiety
- Exploratory factor analysis and Pearson correlations were conducted
- A three-factor solution identified Overprotection, Distress, and Approach subscales
- Evidence of convergent and divergent validity was demonstrated

Table 1Promax-rotated structure matrix for final three-factor solution ($N = 192$).

	Overprotection	Distress	Approach
My child's anxiety will decrease if he/she avoids what makes him/her anxious.	.41	.05	.03
My child should be excused from activities that make him/her nervous.	.49	.27	-.08
A good parent will not push his/her child to do things that make him/her nervous.	.52	.06	-.23
Anxious children are sensitive and need to be protected.	.64	.06	-.04
My child is my best friend.	.49	-.15	-.12
It is important that other people in my child's life (e.g., teachers) do not push him/her to do things that make him/her nervous.	.54	.12	-.15
It is important that I keep my child safe from his/her worries.	.71	-.13	-.13
My child should not be worried.	.42	-.11	.09
My child will be traumatized if I push him/her to do something that makes him/her nervous.	.73	-.06	-.04
It is important that I protect my child from feeling anxious.	.63	.21	-.20
If my child is forced to face his/her anxiety, it will make it worse.	.57	-.02	-.18
If my child had different parents, perhaps he/she would not be so anxious.	-.05	.49	.24
As a parent, I am very limited in how much I can help my child with his/her anxiety.	-.02	.44	-.02
It is hard for me to be with my child when he/she is nervous.	-.06	.68	.17
I feel uncertain about how to help my child when he/she is anxious.	.06	.48	.17
I feel uncomfortable when my child feels anxious.	.05	.58	.19
I try not to think about my child's anxiety.	.08	.48	-.04
A way to help my child feel less anxious is to encourage him/her to face his/her fears.	-.10	.11	.64
A good parent allows his/her child to have freedom and experience things on his/her own.	-.17	.16	.51
Children can learn a great deal from their mistakes.	-.01	-.04	.65
It is important for children to see adults cope with anxiety.	-.13	.20	.60

Table 2Promax-rotated pattern matrix for final three-factor solution ($N = 192$).

	Overprotection	Distress	Approach
My child's anxiety will decrease if he/she avoids what makes him/her anxious.	.42	.03	.09
My child should be excused from activities that make him/her nervous.	.48	.26	-.03
A good parent will not push his/her child to do things that make him/her nervous.	.50	.07	-.15
Anxious children are sensitive and need to be protected.	.65	.04	.06
My child is my best friend.	.49	-.16	-.02
It is important that other people in my child's life (e.g., teachers) do not push him/her to do things that make him/her nervous.	.53	.12	-.08
It is important that I keep my child safe from his/her worries.	.72	-.14	<.01
My child should not be worried.	.45	-.15	.18
My child will be traumatized if I push him/her to do something that makes him/her nervous.	.75	-.09	.10
It is important that I protect my child from feeling anxious.	.61	.21	-.13
If my child is forced to face his/her anxiety, it will make it worse.	.56	-.03	-.08
If my child had different parents, perhaps he/she would not be so anxious.	-.03	.47	.18
As a parent, I am very limited in how much I can help my child with his/her anxiety.	-.04	.45	-.08
It is hard for me to be with my child when he/she is nervous.	-.08	.69	-.05
I feel uncertain about how to help my child when he/she is anxious.	.07	.47	.13
I feel uncomfortable when my child feels anxious.	.06	.56	.13
I try not to think about my child's anxiety.	.05	.49	-.09
A way to help my child feel less anxious is to encourage him/her to face his/her fears.	.01	.04	.64
A good parent allows his/her child to have freedom and experience things on his/her own.	-.10	.11	.48
Children can learn a great deal from their mistakes.	.10	-.12	.68
It is important for children to see adults cope with anxiety.	-.04	.13	.58

Table 3Correlations among PABUA scales ($N = 192$).

	Overprotection	Distress	Approach
Overprotection	--	-.01	-.12
Distress	-.01	--	.17*
Approach	-.12	.17	--

* $P < .05$

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 4Correlations among PABUA scales and study variables ($n = 83$).

	PABUA		
	Overprotection	Distress	Approach
1. PAAQ Total	.30**	.25*	.05
2. PAAQ Unwillingness	.43**	-.03	.08
3. PAAQ Inaction	.08	.39**	.03
4. PBAQ	.26*	.10	-.34**
5. IRI (PT+EC)	-.03	.03	.15
6. STAI Trait Anxiety (parent)	-.01	.22*	.02
7. BDI-II	.09	.22*	.04
8. FAD General Functioning	.02	.20	-.06
9. MASC	.09	.02	-.09
10. MASC-Parent	.19	-.12	-.06
11. CAIS-Parent	.06	-.13	.15

*Note.** $p < .05$,** $p < .01$,*** $p < .001$,

PABUA = Parent Attitudes and Beliefs about Anxiety, PAAQ = Parental Acceptance and Action Questionnaire, PBAQ = Parent Beliefs about Anxiety Questionnaire, IRI (PT+EC) = Interpersonal Reactivity Index (Perspective Taking + Empathic Concern), STAI = State-Trait Anxiety Inventory, BDI-II = Beck Depression Inventory-II, FAD = Family Assessment Device, MASC = Multidimensional Anxiety Scale for Children, CAIS = Child Anxiety Impact Scale.