

6-7-2016

# A Psychometric Evaluation of a Measure for Evaluating Youth's and their Parent's Worries about Psychosocial Treatment

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A Psychometric Evaluation of a Measure for Evaluating  
Youth's and their Parent's Worries about Psychosocial Treatment

by

Robert R. Selles

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
Department of Psychology  
with a concentration in Clinical Psychology  
College of Arts and Sciences  
University of South Florida

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Date of Approval:  
May 20, 2016

Keywords: Measure development; Treatment concerns; Treatment worries; Cognitive-behavioral  
therapy; Anxiety disorders; Obsessive-compulsive disorder

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## **Dedication**

This project is dedicated to my parents, who graciously read far too many written assignments along the way and, by forcing me to sit and work through it, ensured I learned from their feedback.

## **Acknowledgments**

This project would not have been possible without the contributions of the following people: A) all the families that, despite the inconvenience to their already busy lives, took the time to complete this research study; B) Eric Storch, Ph.D. who provided extensive input, guidance, and mentorship throughout the project; C) Nicole McBride, B.S., who managed many aspects of the study execution and continued recruitment in my absence; D) Stephen Whiteside, Ph.D., Julie Dammann, M.A., and the team at the Mayo Clinic's Child and Adolescent Anxiety Disorders Program for their involvement in the study and recruitment of participants; E) Vicky Phares, Ph.D. who provided additional mentorship and support on the project; F) Brent Small, Ph.D., who provided much needed guidance on statistical approaches, procedures, and outcomes; G) Monica Wu, M.A., Brittney Dane, B.S., Amanda Collier, B.A., Elysse Arnold, B.A., Jennifer Richardson, M.A., Kimberly O'Leary, M.A., and Lauren Zellmer for their participation in various aspects of data collection; H) Adam Lewin, Ph.D., Omar Rahman, Ph.D., Betty Horng, Ph.D., Joshua Nadeau, Ph.D., Brittany Rudy, Ph.D., and Marni Jacob, Ph.D., who participated in the initial development of the Treatment Worries Questionnaire and referred participants to the study; I) J. Kevin Thompson, Ph.D., Walter Borman, Ph.D., and Alison Salloum, Ph.D., for their constructive input on the project and participation in the adjudication process; and J) Randi McCabe, Ph.D., Karen Rowa, Ph.D., and Christine Purdon, Ph.D. for allowing modification of their Treatment Ambivalence Questionnaire to create the Treatment Worries Questionnaire.

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### **Abstract**

**INTRODUCTION:** Initial examination of treatment worries suggest they may represent an important construct; however, previously used measures were limited by their specificity, scale format, and lack of parent report. Therefore the present study sought to examine the initial outcomes and psychometrics of newly developed corresponding measures of treatment worries in youth (Treatment Worries Questionnaire – Child; TWQ-C) and their parents (Treatment Worries Questionnaire – Parent; TWQ-P).

**METHODS:** Participants were 94 youth (7-17-years old) and parent dyads presenting for psychosocial treatment of an anxiety disorder. Prior to initiation of treatment, dyads completed the TWQ-C and TWQ-P along with a host of additional child and parent report measures, and three clinician-rated measures.

**RESULTS:** Treatment worries were endorsed in the mild-moderate range by youth and the TWQ-C demonstrated good-excellent internal consistency and test-retest reliability, a strong three-factor structure, and consistent convergent and divergent relationships. Treatment worries were endorsed in the low mild range by parents and the TWQ-P demonstrated fair-good internal consistency and test-retest reliability, a less empirically, but theoretically, supported four-factor structure, and consistent divergent relationships, but variable (by factor) convergent relationships.

**DISCUSSION:** The results of the present study provide information on the concept of treatment worries and support the use of the TWQ-C and TWQ-P as broad assessments of the concept in a variety of populations. Low endorsement of worries among parents likely relates to the nature of

the present sample (treatment-seeking) and may have contributed significantly to the less ideal psychometrics of the TWQ-P in comparison to the TWQ-C. Future investigation of treatment worries using the TWQ-C and TWQ-P in a variety of samples is warranted.

## Introduction

Anxiety disorders are a category of mental disorders that are characterized by excessive recurrence of anxiety, fear, and/or worry that manifests physically, cognitively and emotionally. Of psychiatric disorder classes (e.g., mood disorders, behavior disorders), anxiety disorders are the most common, with an estimated lifetime prevalence of 29 – 38% (Kessler et al., 2005; Merikangas et al., 2010), a predictive cumulative prevalence of 10% and 21% before the age of 16 and 21 years respectively (Copeland, Shanahan, Costello, & Angold, 2011; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003), as well as a point prevalence in youth estimated as low as 2% (3-month; Costello et al., 2003) and as high as 15% (30-day; Kessler et al., 2012). Most broadly, the classification of anxiety disorders includes agoraphobia, generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), panic disorder (PD), post-traumatic stress disorder (PTSD), separation anxiety disorder (SAD), social phobia (SoP), and specific/simple phobia (SP). However, composition of what diagnoses should all be included under the classification of anxiety disorders has been debated, particularly in regards to obsessive-compulsive disorder, which has a unique connection to a number of other psychiatric disorders (e.g., tic disorders, body dysmorphic disorder; Hollander, Braun, & Simeon, 2008), and post-traumatic stress disorder, which, unlike the other anxiety disorders, is dependent on a specific traumatic trigger (Bodkin, Pope, Detke, & Hudson, 2007). As is true of psychopathology in general, co-occurrence amongst anxiety disorders is common, with approximately 15% of youth with anxiety disorders meeting diagnostic criteria for two anxiety diagnoses, and 5% having three or more (Ford, Goodman, & Meltzer, 2003; Lewinsohn, Zinbarg, Seeley,

Lewinsohn, & Sack, 1997). Further, in youth, anxiety disorders commonly co-occur with depressive disorders and disruptive disorders (27%; Ford et al., 2003).

Without treatment, anxiety disorders are highly persistent and chronic, characterized by waxing and waning in symptoms, frequent relapse, and considerable fluctuation across anxiety diagnoses through life (Bruce et al., 2005; Wittchen, Lieb, Pfister, & Schuster, 2000). Anxiety disorders have consistently been shown to contribute to significant functional impairment and overall reductions in quality of life for youth (Essau, Conradt, & Petermann, 2000; Langley, Bergman, McCracken, & Piacentini, 2004; Langley et al., 2013). While areas of impairment may differ as a function of the specific diagnosis, studies have noted anxiety disorders contribute to problems in: A) educational and occupational functioning, including reduced achievement (Mychailyszyn, Mendez, & Kendall, 2010) and premature school withdrawal (Van Ameringen, Mancini, & Farvolden, 2003); B) social functioning (Ginsburg, La Greca, & Silverman, 1998; Strauss, Lease, Kazdin, Dulcan, & Last, 1989), including poorer peer interactions (Ginsburg et al., 1998); C) emotional functioning (Ginsburg et al., 1998), including lower self-esteem (Ehnholt, Salkovskis, & Rimes, 1999; Ginsburg et al., 1998); D) family life and daily living (Piacentini, Bergman, Keller, & McCracken, 2003); and E) health and wellness (Marciniak, Lage, Landbloom, Dunayevich, & Bowman, 2004), including increased sleep related problems (Alfano, Ginsburg, & Kingery, 2007; Storch, Murphy, et al., 2008). In addition, if untreated, onset of anxiety disorders in childhood is associated with increased risk for early parenthood, as well as the onset of other mental disorders (i.e., depression, substance use; Beesdo et al., 2007; Woodward & Fergusson, 2001; Zimmermann et al., 2003) and medical illnesses (e.g., cardiac disorders, hypertension; Harter, Conway, & Merikangas, 2003) later in life. These factors, combined with the frequency at which anxiety disorders occur, contribute to an immense societal

cost attributable to the presence of anxiety disorders (Bodden, Dirksen, & Bögels, 2007; Greenberg et al., 1999). Therefore, early and effective intervention for anxiety disorders is of considerable importance.

### **Cognitive Behavioral Treatment of Anxiety Disorders**

Despite the chronic and impairing nature of anxiety disorders if left untreated, a large body of evidence supports the effectiveness of cognitive-behavioral therapy (CBT) for treating anxiety in youth (Abramowitz, Whiteside, & Deacon, 2005; Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004; In-Albon & Schneider, 2007). While other treatments also have received empirical support (e.g., selective serotonin reuptake inhibitors (SSRIs) for OCD and GAD; PRN benzodiazepines for SP; Ravindran & Stein, 2010), CBT is considered the first-line treatment over these options due to comparable or superior treatment effects, increased durability, reduced cost, and minimal risk for adverse effects (Canton, Scott, & Glue, 2012; Eddy, Dutra, Bradley, & Westen, 2004; Heuzenroeder et al., 2004; Mitte, 2005a, 2005b).

The specific content and composition of CBT can differ across disorders, as well as across protocols; however, universally, CBT functions as a time-limited (6-16 sessions) treatment approach aimed at reducing the severity of anxiety symptoms. While neurobiological factors are not ignored, under the CBT model, anxiety symptoms are viewed as the result of a cycle between thoughts, feelings (i.e., physical response) and behaviors. Contact with feared stimuli generate anxiogenic cognitions and a heightened physiological response, which individuals attempt to reduce through the use of compensatory behaviors (e.g., compulsions, avoidance). Temporarily successful, the use of these behaviors reinforces the fear response and

often become more extensive or complicated over time. Therefore, CBT involves strategies aimed at helping individuals learn a new non-fear relationship with feared stimuli.

In general, CBT is comprised of two major components, one cognitive and one behavioral, as well as introduction (psychoeducation) and termination (relapse prevention) material. Functioning as an introduction to treatment, CBT first involves the provision of educational material to families on the nature of anxiety symptomology and phenomenology, as well as the framework, content, requirements and efficacy for CBT. The function of psychoeducation is to establish rapport, address potential misbeliefs, and set up realistic expectations regarding efficacy, motivation, attendance, and homework/treatment completion (Steketee et al., 2011; Westra, Dozois, & Marcus, 2007). Once psychoeducation has been completed, either the behavioral or cognitive component is introduced. For anxiety disorders, the behavioral component of CBT involves the implementation of exposures. Appropriate exposures are developed through a collaborative process between the patient and therapist in which feared situations or stimuli are ranked according to the perceived difficulty. This list, or fear hierarchy, is then used as a guide for engaging in gradually intensifying exposures. When completing an exposure, the patient faces the identified trigger while resisting the prototypical safety response (e.g., compulsions, avoidance). Individuals naturally habituate to anxiety and, with repeated practice, reduce and ultimately eliminate the fear-response. Cognitive strategies, the second core component of CBT, typically focus on helping individuals identify positive and negative emotions (i.e., affective education) and challenging/combatting distorted/anxiogenic thoughts (i.e., cognitive restructuring). At the termination of treatment, families are educated regarding potential relapse and strategies that can be useful in maintaining treatment gains.

## **Factors Associated with CBT Obtainment and Response**

While largely effective, a percentage of individuals who receive CBT do not improve or demonstrate a treatment response (In-Albon & Schneider, 2007) and even those who do, frequently finish treatment with residual symptoms (e.g., Walkup et al., 2008). Despite this, relatively few studies have investigated clinical factors that may contribute to response and those studies that have, are often specific to OCD. However, this limited research does suggest several factors, including symptom presentation, comorbidity, family accommodation, insight, and treatment expectancies, that appear to impact treatment response (Storch, Bjorgvinsson, et al., 2010). In particular, the latter three characteristics are of interest as they appear to contribute to poorer treatment response in a similar way via reductions in treatment motivation and adherence (Storch, Bjorgvinsson, et al., 2010).

*Family Accommodation.* Theoretically, high levels of family accommodation contribute to the maintenance and escalation of a child's anxiety both indirectly (i.e., allowing symptoms to progress unhindered by parental restrictions), as well as directly, (i.e., aiding in completion of reinforcing behaviors; Lebowitz, Panza, Su, & Bloch, 2012; Lebowitz et al., 2013). These patients, and their parents, may be reluctant to reduce accommodating behaviors, which are perceived to help reduce child distress and impairment (Peris et al., 2008; Storch, Geffken, Merlo, Jacob, et al., 2007) and may as a result undermine therapeutic tasks through continued accommodation. Not surprisingly then, high levels of family accommodation are associated with reduced treatment response (Garcia et al., 2010; Merlo, Lehmkuhl, Geffken, & Storch, 2009) and poorer long-term outcomes (Barrett, Farrell, Dadds, & Boulter, 2005).

*Insight.* Youth with poor insight tend to view their symptoms, even though distressing, as necessary or beneficial, rather than problematic, and have difficulty understanding the self-maintaining nature of their symptoms (O'Dwyer & Marks, 2000). These individuals tend to have more severe symptoms (Storch, Milsom, et al., 2008) and demonstrate reduced symptom-challenging behaviors (Catapano, Sperandeo, Perris, Lanzaro, & Maj, 2001). Poor insight reduces youths' understanding of why they are in treatment or how it will be beneficial, and as a result, these youth tend to display poorer motivation for, and compliance with, treatment, ultimately leading to a reduced treatment response (Catapano et al., 2001; Lewin et al., 2010; Storch, Bjorgvinsson, et al., 2010).

*Treatment Expectancies.* More broadly examined than family accommodation and patient insight, treatment expectancies have been repeatedly identified as a factor contributing to patient success in psychotherapy (Constantino, Arnkoff, Glass, Ametrano, & Smith, 2011). In particular, individuals who demonstrate realistic, but tempered expectancies for therapy exhibit more robust therapeutic response when compared with individuals who either: A) do not expect treatment to work; or B) expect treatment to be extremely successful/fast acting (Constantino et al., 2011; Dew & Bickman, 2005; Westra, Aviram, Barnes, & Angus, 2010; Westra et al., 2007).

Theoretically, this window of expectancies keeps individuals motivated, through a combination of optimism (that treatment will work) and realism (that treatment will be difficult).

### **Worries About Treatment**

Clinical experience and preliminary research suggest that many individuals who are about to begin treatment may be worried or concerned about doing so. These worries may focus on what treatment will involve/require and what may occur as a result of treatment. While

worries and concerns are likely present across diagnostic conditions and treatment approaches, youth (and their parents) seeking CBT for anxiety disorders may be a particularly susceptible population to this phenomenon. For one, these youth are anxious and therefore may generalize their anxiety towards therapy and what it may require. Similarly, parents of youth with anxiety disorders also frequently have high level of anxiety (Burstein, Ginsburg, & Tein, 2010; Silverman, Cerny, Nelles, & Burke, 1988) and may be similarly wary of treatment. As discussed above, the nature of CBT for anxiety disorders (i.e., youth gradually face their fears and reduce their use of coping behaviors, such as compulsions and avoidance) may be a particularly frightening prospect for youth, as well as their parents. Therefore, one could hypothesize that a number of youth with anxiety and their parents have worries about beginning CBT for anxiety.

Hypothetically, worries or concerns about beginning treatment could function in a similar way, and be highly related, to the factors discussed above. It seems likely that, if pervasive, these worries could impact treatment motivation, compliance and outcomes. For example, if a child is particularly worried that therapy might be difficult, embarrassing, and will not work, s/he may be reluctant to open up to the therapist or complete therapeutic tasks. Similarly, parents who are worried that their child may become highly distressed in treatment or won't get better, may not ensure completion of therapeutic homework or may balk on attending sessions. It also seems likely that treatment worries may interact with clinical characteristics like family accommodation (e.g., families who highly accommodate symptoms may be apprehensive to reduce these behaviors), insight (e.g., individuals who have limited insight may be highly concerned about what therapy will require them to change about their symptoms) and treatment expectancies (e.g., individuals who do not expect treatment to work may have doubts about starting it). Despite this, relatively few data exist on the nature, extent and impact of treatment fears.

Using qualitative answers obtained from 95 adults with a principal anxiety disorder, Purdon, Rowa, and Antony (2005) collected the first information regarding what concerns individuals may have regarding starting behavioral treatment. Based on this initial data, Rowa et al. (2014) developed a self-report measure of treatment concerns for adults, named the Treatment Ambivalence Questionnaire that was subsequently examined in a sample of 628 anxiety-disordered adults. The results of Rowa et al. (2014) indicate that many adults obtaining treatment for anxiety disorders have concerns and worries regarding beginning behavioral treatment. In particular, factor analysis of the TAQ indicated individuals endorsed concerns regarding: A) experiencing personal consequences as a result of participating in treatment (PC); B) experiencing an adverse reaction to treatment (AR); and C) being inconvenienced by participating in treatment (IN).

Selles, Rowa, McCabe, Purdon, and Storch (2013) examined the extent, nature, clinical correlates and relation to post-treatment outcomes, of treatment concerns in a small sample of 27 youth with primary OCD. Using a slightly modified version of the TAQ designed specifically for youth with OCD (TAQ-C), results of the study indicated that while on average treatment concerns were not highly endorsed (the item average was between “slightly disagree” and “neither agree or disagree”), identification with concerns was highly variable across the sample. In addition, Selles et al. (2013) noted that increased treatment concerns were related to anxiety severity, OCD severity, and family accommodation, although not to treatment outcomes.

Wu et al. (2015) examined treatment concerns in 119 youth with non-OCD anxiety using a slightly modified version of the TAQ intended for this population. Similar to Selles et al. (2013), the study found positive correlations between treatment concerns and child-rated anxiety, depressive symptoms, and impairment; however, treatment concerns were not associated with

parent-rated impairment or clinician-rated anxiety, suggesting concerns may be largely tied to individual symptom perceptions. In addition, they study found that treatment concerns mediated the relationship between child anxiety and functional impairment. The authors suggest that in the face of increasing symptoms, the need for treatment clashes with the child's fears about treatment, leading to increased impairment or perceptions of impairment.

### **Present Study**

While the previously mentioned studies have begun to shed light on an understudied area, further information regarding the content, extent and clinical correlates of worries anxious individuals have regarding beginning behavioral treatment is needed. The TAQ and TAQ-C have been helpful in developing this area of research; however, their wording and content is not suited to the examination of treatment worries among youth with any anxiety disorder. Accordingly, using the TAQ and TAQ-C as starting points, this study sought to examine a newly developed measure of youth- and parent-reported worries regarding beginning therapy, namely the Treatment Worries Questionnaire (TWQ). With this in mind, the following aims were set for the study.

*Specific Aim 1.* To examine the nature and extent of treatment concerns as reported by children and their primary caregivers. Based on previous research, it was hypothesized that overall treatment worries would be present at mild levels, as indicated by an overall mean item score falling between 1.0 and 2.5.

*Specific Aim 2.* To examine the factor structure of the TWQ-C and the TWQ-P using exploratory factor analysis (EFA). Based on the results of Rowa et al. (2014) it was hypothesized

that the TWQ-C and TWQ-P would identify 3 highly correlated factors (i.e. PC, AR, IN) with good factor loadings and strong internal consistency among factors.

*Specific Aim 3.* To examine the reliability of the TWQ-C and TWQ-P, specifically the measures' internal consistency and one-week test-retest reliability. It was hypothesized that both the TWQ-C and TWQ-P would have good to excellent internal consistency and test-retest reliability.

*Specific Aim 4.* To examine the validity of the TWQ-C and TWQ-P, specifically the measures' convergent validity and divergent validity. It was hypothesized that the TWQ-C and TWQ-P would demonstrate good convergent validity as evidenced by moderate correlations with child- and parent-reported anxiety severity and treatment expectancy. Similarly, it was hypothesized that the TWQ-C and TWQ-P would demonstrate good divergent validity as evidenced by weak correlations with externalizing symptoms, social desirability, and frequency of physical exercise.

*Exploratory Aim 1.* To explore the relationship of additional clinical characteristics to the nature and extent of treatment concerns reported by parents and children. Based on previous research it was hypothesized that treatment concerns would be related to the extent of family accommodation, anxiety sensitivity, parental anxiety, and patient insight.

*Exploratory Aim 2.* To explore the correspondence on paired items between child and parent report. It was hypothesized that ratings of paired items on the TWQ-C and TWQ-P would be highly correlated.

## Methods

### Participants

Participants were 94 child-parent dyads seeking treatment for anxiety at one of two evaluation and treatment clinics for anxiety and obsessive-compulsive and related disorders, namely: A) the Rothman Center for Neuropsychiatry, associated with the University of South Florida, Departments of Pediatrics ( $n = 51$ ); or B) the Child and Adolescent Anxiety Disorders Program at the Mayo Clinic ( $n = 43$ ). Recruitment took place following the dyads' initial clinic visit (i.e., a clinical evaluation with a licensed psychologist or a research assessment for an anxiety-focused treatment trial). Participants were considered eligible for the study if the following inclusion criteria were met: a) scored  $\geq 10$  on the Pediatric Anxiety Rating Scale 5-item total (RUPP, 2002); b) were between the ages of 7 – 17 years; c) were considering behavioral treatment; d) had a parent or legal primary caregiver willing to participate in study procedures; and e) were fluent in English. Participants will be excluded from the study if they: a) were actively suicidal; b) exhibited symptoms of mania or psychosis; c) lacked reading/comprehension skills sufficient to complete the study; d) had received multiple sessions of CBT immediately prior to coming in for treatment; and e) were unwilling to complete the study procedures.

## Measures

*Demographic Form* (DEMO; Appendix A). The DEMO form consisted of 12 items to obtain basic demographic information from families regarding the parent (i.e., caregiver type, age, household income), the child (i.e., age, gender, ethnicity, living situation), schooling (i.e. school type, grade), and treatment (i.e. psychotherapy history, current medication status).

*Treatment Worries Questionnaire – Initial Child* (TWQ-C; Appendix B) and *Parent Versions* (TWQ-P; Appendix C). The TWQ-C and TWQ-P are self developed measures that obtain a child and parent self-report of worries regarding beginning behavioral treatment. The TWQ-C and TWQ-P are comprised of 20 and 26 items respectively rated on a 6-point likert-type scale, with scores ranging from 0 (not worried) to 5 (very worried). Given that treatment worries may be similar between youth and their parent(s), as well as diverse, the TWQ-C and TWQ-P consist of 15 matched items, while the TWQ-C has an additional five child specific items and the TWQ-P has an additional 11 parent specific items.

Initially the TWQ was developed as a modified version of an existing adult self-report questionnaire, named the Treatment Ambivalence Questionnaire (TAQ; Purdon, Rowa, Gifford, McCabe, & Antony, 2012). In order to develop the measure into child and parent reports, items were reworded. In addition, the measures' scale was altered from 1 (strongly disagree) to 7 (strongly agree) to 0 (not worried) – 5 (very worried). Considering that parents and children are asked to rate how much they worry about the listed items, eliminating the “disagreement” portion of the scale appeared appropriate. Further, this modification simplified the scale for use in children (i.e., reduces the number of options, eliminates neutral option) and better mirrors scale formats typically used on child self-report forms (e.g., SCAS). This initial draft of the scale was circulated among a group of expert child psychologists familiar with youth with anxiety

disorders. Experts were asked to informally comment on the appropriateness, relevance, readability, and clarity of items, as well as the comprehensiveness of the measure. Based on responses, item wordings were further revised, a number of items from the TAQ were deemed non-relevant and were removed, and a number of new items were created and added based on suggestions.

Following informal examination, the Delphi Method was employed to obtain expert consensus on the content and design of the measure. In cases when the nature of the outcome of interest, in this case worries regarding beginning treatment, is unknown, the Delphi Method is recommended to establish clinical consensus regarding likely content (Adler & Ziglio, 1996). A panel of 7 individuals was created that included licensed psychologists and post-doctoral clinicians from the University of South Florida who were experienced with cognitive-behavioral treatment, anxiety disorders, and measurement/test development. In the first round, panelists were asked to comment on the content, format (i.e., length, scale type), language (i.e., readability, comparability), and suitable population of the measure. Based on the result of the first round the scale's questions, wording and focus was further refined, while the 4-item likert scale was retained.

The panelists were sent the measures for a second round, in which they were asked to comment on the revised content and language. Feedback from the second round indicated that most individuals felt the measure was improved and only minimal suggestions for changes in content and language were made. These changes were addressed and the measure was finalized.

*Spence Child Anxiety Scale – Child and Parent Versions* (SCAS; Spence, 1998 and SCAS-P; Nauta et al., 2004). Comprised of 38 items, the SCAS and SCAS-P were employed to measure the type, and frequency of occurrence, of youth's anxiety symptoms. Items are scored

on a 4-point likert-type scale ranging from 0 (never) to 3 (always) and assess symptoms in six domains of anxiety, namely: panic/agoraphobia, social phobia, separation anxiety, generalized anxiety, obsessions/compulsions, and fear of physical injury. Psychometric properties of the SCAS and SCAS-P are well established with high internal consistency for subscale and total scores, acceptable test-retest reliability, and strong convergent and divergent validity (Nauta et al., 2004; Spence, 1998).

*Pediatric Anxiety Rating Scale (PARS; RUPP, 2002).* The PARS is a clinician rated scale that assesses both child and parent reports of child anxiety frequency, intensity, avoidance, and impairment over the past week. Psychometric properties for the PARS include good inter-rater reliability, test-retest reliability, as well as convergent and divergent validity (RUPP, 2002; Storch et al., 2012). The PARS symptom checklist and corresponding items (i.e., total number of symptoms, number of physical symptoms) were excluded due to the use of other measures (e.g., SCAS, ASIC) that examine similar content in greater detail.

*Clinical Global Impression – Severity (CGI-Severity; National Institute of Mental Health, 1985).* The CGI-Severity is a single item rating of the severity of general psychopathology as judged by the clinician, ranging from 0 (indicating no illness) to 6 (indicating extreme severity). Psychometric properties for the CGI-Severity have been well established, including good convergent validity and sensitivity to treatment (Storch, Geffken, Merlo, Mann, et al., 2007; Storch, Lewin, De Nadai, & Murphy, 2010; Zaider, Heimberg, Fresco, Schneier, & Liebowitz, 2003).

*Child Sheehan Disability Scale – Child and Parent Versions (Child (CSDS and CSDS-P; Whiteside, 2009).* The CSDS is a brief self-report measure that assesses the extent of impairment in social, academic, and family functioning that youth experience as a result of their anxiety

symptoms. The CSDS-P similarly inquires about the impairment youth experience as a result of their anxiety symptoms, but also contains an additional 3 items assessing the extent to which parents' own work, social and family functioning is impaired as a result of their child's symptoms. Both the CSDS and CSDS-P have demonstrated strong psychometric properties including internal consistency, test-retest reliability and construct validity (Whiteside, 2009).

*Anxiety Sensitivity Index for Children* (ASIC; Laurent, Schmidt, Catanzaro, Joiner, & Kelley, 1998). The ASIC is a 12-item self-report questionnaire that inquires about youth's aversion to their anxiety symptoms. Psychometric properties of the ASIC have been established, with results suggesting unique clinical utility, good construct validity, and internal consistency (Deacon, Valentiner, Gutierrez, & Blacker, 2002; Laurent et al., 1998).

*Depression, Anxiety, and Stress Scale – Short Form* (DASS-21; Antony, Bieling, Cox, Enns, & Swinson, 1998). Measuring depression, anxiety and stress symptoms in adults, the DASS-21 is a short form of the 42-item DASS (Lovibond & Lovibond, 1995). Containing 7-items from each subscale, for a total of 21-items, the DASS-21 has excellent psychometric properties, including excellent internal consistency, convergent validity, as well as a clean factor structure and is comparable to the full DASS (Antony et al., 1998; Lovibond & Lovibond, 1995).

*Iowa Conners Rating Scale* (ICRS; Loney & Milich, 1982). The ICRS is a widely used brief measure of inattentive, impulsive and overactive symptoms in children, as well as oppositional-defiant behavior. The measure consists of 10 parent-reported items focused on the frequency of these symptoms in children. Psychometric properties of the ICRS include good internal consistency, test-retest reliability and construct validity (Waschbusch & Willoughby, 2008).

*Measure of Insight* (Appendix F). Derived from the well-established Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS; Scahill et al., 1997) question 11, the measure of insight consists of a number of verbal prompts appropriate to both OCD and anxiety disorders and a single-clinician rated item with anchored scores ranging from 0 (excellent insight) to 4 (lacks insight). Previous studies examining insight in OCD have used the CY-BOCS question 11 as the primary measure of insight (Lewin et al., 2010; Storch, Milsom, et al., 2008) and it has demonstrated excellent inter-rater reliability (Lewin et al., 2010).

*Family Accommodation Scale – Anxiety* (FASA; Lebowitz et al., 2013). Comprised of 9-parent rated items, the FASA assesses the degree to which family members accommodated the child's anxiety symptoms, either through active participation (e.g., provision of reassurance; assistance in avoidance) or modification of functioning (e.g., change to family, work or leisure routines; fulfillment of child's responsibilities). Internal consistency, as well as convergent and divergent validity for the FASA are good (Lebowitz et al., 2013).

*Child Avoidance Measure* (CAM; Whiteside, Gryczkowski, Ale, Brown-Jacobsen, & McCarthy, 2013). With both child self-report and parent versions, the CAM consists of eight items that assess children's behavioral avoidance of feared stimuli. Both scales have shown internal consistency and convergent validity (Whiteside et al., 2013).

*Expectancy Rating Questionnaire* (ERQ; Borkovec & Nau, 1972). The ERQ has been used in various forms to measure of treatment expectancy and rationale credibility. Psychometric examination suggests the ERQ has a stable factor structure and good reliability including internal consistency and test-retest reliability (Deville & Borkovec, 2000). Both parents and children completed the ERQ.

*Marlowe-Crowne Social Desirability Scale – Form XI* (SDS; Strahan & Gerbasi, 1972).

The SDS-X1 is a 10-item abbreviated version of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). This self-report form evaluates the extent to which individuals attempt to present themselves in a socially desirable light using true-false statements. The employed abbreviated version is considered the best version of the SDS due to its good psychometric properties and relationship to the latent construct (Fischer & Fick, 1993).

*Measure of Moderate to Vigorous Physical Activity* (MVPA; Prochaska, Sallis, & Long, 2001). The MVPA is a self-report measure of the frequency in which youth complete moderate to vigorous physical activity (i.e. increases heart rate and shortness of breath) for at least 60 minutes per day over the past 7 days, as well as over a typical or usual week. The MVPA has been established as reliable and valid and is recommended for clinical practice (Prochaska et al., 2001).

Table 1. *Measures and Corresponding Respondents.*

Measure	Child	Parent	Clinician
Demo		X	
TWQ	X	X	
SCAS	X	X	
PARS			X
CGI-Severity			X
CSDS	X	X	
ASIC	X		
DASS-21		X	
ICRS		X	
Measure of Insight			X
FASA		X	
CAM	X	X	
ERQ	X	X	
SDS	X	X	
MVPA	X		

## Procedure

All research procedures were reviewed and approved by the institutional review boards of both the University of the South Florida (see appendix A) and the Mayo Clinic (see appendix B). Following completion of an initial clinic visit at the Rothman Center for Neuropsychiatry or the

Mayo Clinic that was used to establish general presenting problems and eligibility, potential participants were introduced to study personnel by their intake clinician. Youth and their primary caregiver were informed regarding the nature and requirements of the present study and were asked whether they would be interested in participating. Given time constraints on the day of their initial appointment, some families opted to return for the study prior to their first therapy session. Interested families were walked through the informed consent, which explained in detail the nature of the project, as well as any perceived risks or benefits. As part of the informed consent, families agreed to, or opted out of, participation in a retest of the TWQ-C and TWQ-P approximately 1-week following their initial administration (so long as this was prior to their initiation of treatment). If, at the end of the consent, both the child and parent were willing to participate, written assent from youth, written consent from the parent or legal guardian for the child's participation, and written consent from the parent or legal guardian regarding their own participation, was obtained. To ensure consistent information was provided to families across sites, parents and children were provided with a brief description of cognitive behavioral therapy for anxiety/OCD which they read before completing the questionnaires (see Appendix G). The packets of child and parent report measures were then administered, following which study personnel completed the three clinician-rated measures. Families that agreed and were able to complete the retest portion (i.e., had not yet had their first therapy session), completed the TWQ-C and TWQ-P in person prior to their initial therapy session, approximately 1-week following their initial assessment. Following completion of the study, clinical diagnoses were determined using best estimate procedures (Leckman, Sholomskas, Thompson, Belanger, & Weissman, 1982) drawing information from the youth's initial evaluation (i.e., clinical interview with a licensed psychologist or structured research assessment), subscale scores on the SCAS and

SCAS-P, and any available medical records. Data from the measures were then entered into SPSS, and stored in files located on password-protected drives only accessible to study personnel.

### **Design Considerations**

*Measure Focus.* The focus and content of the TWQ was carefully considered during development of the present study. First, it was considered whether the TWQ-C and TWQ-P should function as equivalent or individual measures. Under an equivalent format, the TWQ-P would function as a paired parent report to the TWQ-C of the child's treatment concerns. While this format would allow for examination of inter-rater reliability and would capture parents' perceptions of their child's worries, it would not capture parents' personal identification with treatment worries. The alternative option, which was ultimately selected, framed the measures as two self-report questionnaires, one measuring the parent's treatment worries and the other the child's. This format allows unique concerns that children or parents may have to be included on each scale and captures the parent's level of worry regarding treatment, rather than just the child's. Despite this model, it was theorized that while some concerns may be unique to parents or children, many concerns would be similarly applicable. Therefore, 15 of the items on the TWQ were matched.

An additional consideration of the measure's focus was its breadth (i.e., whether it should be applicable across disorders and treatment approaches). While it is discussed earlier that youth seeking CBT for anxiety and their parents may be particularly concerned about treatment beginning, applying a broad framework to the measure allows investigation of treatment concerns amongst youth with other disorders seeking other forms of treatment. While this may

limit unique information specific to CBT for anxiety (e.g., fear regarding exposures), we determined that a broader form of the measure was still capable of providing detailed information regarding what aspects of treatment may be particularly concerning for youth or their parents. This broader format provides a more generalizable measure and allows for future studies to examine treatment worries in a wide variety of populations.

*Participant Age.* The age range for youth participating in the study was selected based on a number of factors. If young children were not able to understand the measure, their inclusion would risk the addition of unwanted error variance into the overall data; however, including younger-aged youth widened the potential participant pool, increases the generalizability of the measure, and better reflects the early age of onset of many anxiety disorders. Feedback from experts during the first round of the Delphi examination varied, with suggestions of a lowest age ranging from 7-years old to 12-years old. Refinements to the measure's language were made to increase readability for children, and analysis of the TWQ-C's reading level indicates a Flesh-Kincaid grade equivalent of 5.0. Taking this into account, as well as the inclusion of a study criteria that excluded youth who were not appear able to read/comprehend study measures, 7-years old was selected as the lowest age for the study.

*Feasibility.* While collecting a large array of information regarding participants was of interest, keeping the assessment packet as brief and easy to complete as possible was believed to make the study more attractive to potential participants and reduce the burden on study personnel. Therefore a number of decisions regarding the study's composition were made. First, wherever possible, child and parent report measures were selected over clinician report measures, in order to limit the time necessary from study personnel and allow families more flexibility in completing the measures. Second, it was decided that the study would not include a

full structured diagnostic interview, in favor of a continuous anxiety score cut-off for inclusion criteria and the use of best estimate procedures to establish specific diagnoses (Leckman et al., 1982). Considering all included patients completed an initial intake interview or structured research assessment, full structured diagnostic interviews was considered to be redundant and highly burdensome on both participants and study personnel. Additionally, the use of a non-disorder specific, continuous measure of anxiety severity (i.e., PARS; CGI-Severity) better reflects a dimensional conceptualization of anxiety, an approach to measurement encouraged by the National Institute of Mental Health's Research Domain Criteria (RDoC) initiative. Not burdened by problems of comorbidity, the RDoC approach is advantageous as it acknowledges the similar mechanisms that underlie the symptoms and treatment of anxiety disorders (Sanislow et al., 2010). Finally, drawing information from the initial intake interview, the patient's history, and sub-scale scores on the SCAS and SCAS-P, the use of best estimate procedures to establish diagnoses is empirically supported (Leckman et al., 1982) and better mirrors clinical practice than the use of full structured diagnostic interviews.

*Sample Size.* Power analysis and calculation of sample size for the present study were driven primarily by considerations for the factor analysis and data collection feasibility. Multiple guidelines for sample size within EFA have been made (e.g., 10 participants per item); however, significant variation exists between different guidelines, and strict adherence to guidelines fails to account for characteristics of the measure, sample and/or data that may impact power (Fabrigar, Wegener, MacCallum, & Strahan, 1999). In particular, in samples where factors are overdetermined (i.e., at least three items load onto each factor) and share a high level of communality, accurate factor estimates can be obtained with samples of approximately 100 participants (MacCallum, Widaman, Zhang, & Hong, 1999). While one cannot be certain

whether a sample will have these characteristics until after data collection, reasonable hypotheses can be made. For the present study, the ratio of items to hypothesized factors (i.e., >4) suggested that the factors identified will be overidentified. Additionally, the extensive development of the two measures' item content to produce measures examining an overall construct, lend support to the measures factor's likely sharing variance. Therefore, the final obtained sample of completed TWQs from 94 youth and 92 parents was considered sufficient to examine the data.

### **Data Management**

Parent-child dyads in the study were assigned a participant ID. Any identifiable information was stored in a separate locked cabinet from de-identified data. Data collected as part of the study procedures was entered in an ongoing fashion into the Statistical Package for Social Sciences (SPSS) software. Databases were stored on a secure drive at the Rothman Center for Pediatric Neuropsychiatry. Throughout the study, completeness of data was carefully monitored.

If participants had greater than 10% missing on any measure, they were excluded from the analyses for that measure, but were retained for analyses on other measures (provided they had less than 10% of data missing). Minimal missing data was identified for the TWQ-C (one item missing:  $n = 4$ ) and TWQ-P (one item missing:  $n = 2$ ; three items missing:  $n = 3$ ; not completed:  $n = 2$ ). Mean imputation was used as no theoretically relevant deck variables were identified. Mean imputation was also used for the Social Desirability Scale for similar reasons. For the SCAS, SCAS-P, CASI, and FASA, data were imputed through hot deck procedures outlined by Myers (2011) with CGI-Severity score and child gender serving as deck variables. If individuals were also missing CGI-S data, mean imputation was used in place of hot deck

procedures. For the SCAS and SCAS-P, subscale means were used. Finally, missing data for the DASS were imputed using hot deck procedures with CGI-S score and parent gender serving as deck variables.

## Results

### Sample Characteristics

The final sample was comprised of 94 child-parent dyads. The sample was largely Caucasian (89%;  $n = 84$ ), with 62% female youth ( $n = 58$ ) and 88% female parents ( $n = 79$ ; missing parent gender:  $n = 4$ ). Child age ranged from 7-17 with an average patient age of 12.31 years ( $SD = 2.83$ ). Both prior psychosocial treatment and current medications were common. OCD was the most common diagnosis occurring in 42% of the sample ( $n = 39$ ), followed by ‘other anxiety disorder’ (e.g., anxiety disorder - not otherwise specified, panic disorder, adjustment disorder with anxiety;  $n = 15$ ), GAD ( $n = 14$ ), social phobia ( $n = 14$ ), specific phobia ( $n = 7$ ), and separation anxiety ( $n = 5$ ). Full sample characteristics are presented in Table 2.

### Treatment Worries Questionnaire – Child Version

*Specific Aim 1.* Evaluation of the nature and extent of treatment worries endorsed by children was completed by examining averages and standard deviations of the TWQ-C items and total scores. Based on the measures’ scale, the following guide for item averages was used: A) no concerns:  $M < 1$ ; B) mild:  $1.0 \leq M < 2.5$ ; B) moderate:  $2.5 \leq M < 4.0$ ; and C) high:  $M \geq 4.0$ .

Table 3 displays the means, standard deviations, and percentage of children who endorsed the highest two item scores for all items of the TWQ-C. For children, three items had the highest item averages and the highest frequency of top response option endorsement.

Table 2. Sample Characteristics

Parent	N (%)
Gender	
Female	79 (84)
Male	11 (12)
Missing	4 (4)
Education	
High School/GED	11 (12)
Associates/Trade	19 (20)
Bachelor's Degree	34 (36)
Graduate Degree	27 (29)
Missing	3 (3)
Child	M (SD)/ N (%)
Age	12.31 (2.83)
Female	58 (62)
Race/Ethnicity	
Caucasian	84 (89)
Hispanic/Latin American	6 (6)
Asian	1 (1)
Mixed Race/Other	1 (1)
Missing	1 (1)
Prior Psychosocial Treatment	
Yes	56 (60)
No	36 (38)
Missing	2 (2)
Current Medication	
Yes	44 (47)
No	43 (46)
Missing	7 (7)
Primary Diagnosis	
Obsessive Compulsive	39 (42)
Generalized Anxiety	14 (15)
Social Phobia	14 (15)
Separation Anxiety	5 (5)
Specific Phobia	8 (9)
Panic Disorder	1 (1)
Anxiety NOS	11 (12)
Adjustment Disorder with Anxiety	2 (2)

Table 3. Individual Item Outcomes of the TWO-C

	Item content	M	SD	Top 2 (%)
1	...therapy is going to make me miss too much school or other important activities outside of school (clubs, sports, lessons, etc).	1.41	1.51	11
2	...if I don't get better, I'll feel more frustrated, upset, or embarrassed about my problems than I do now.	2.13	1.69	28
3	...therapy will be too hard.	1.55	1.58	16
4	...if I go for therapy, people might think my problems are bigger than they really are.	1.49	1.75	19
5	...therapy won't help me.	1.49	1.68	19
6	...my therapist won't understand me or my problems.	1.06	1.42	10
7	...if people find out I'm in therapy, it could be bad for my life (get teased, ruin my future).	1.22	1.45	12
8	...therapy will be really upsetting.	1.49	1.71	17
9	...therapy will make me have new problems.	0.92	1.42	10
10	...starting therapy means that there is really something wrong with me.	1.17	1.47	11
11	...therapy will make me change in ways I won't like.	0.89	1.37	11
12	...even if therapy helps, my problems will just come back.	1.64	1.55	12
13	...if I don't get better during therapy, my problems will never go away.	1.87	1.75	22
14	...going for therapy will make me feel embarrassed.	1.31	1.56	13
15	...therapy will make my problems worse.	0.71	1.29	6
16	...therapy is going to take up time I could spend doing things I like.	1.53	1.71	17
17	...I will have to talk about things I don't want to talk about.	2.30	1.82	32
18	...therapy will make me change things I don't want to change.	1.16	1.59	15
19	...therapy will make me change how I deal with my problems and I'll lose control.	1.04	1.57	13
20	...if I don't get better during therapy, my parent(s) will be disappointed in me.	1.35	1.71	15

These items were: 1) item 17 (“I will have to talk about things I don’t want to talk about”:  $M = 2.30$ ;  $SD = 1.82$ ; Top 2 = 32%); 2) item 2 (“if I don’t get better, I’ll feel more frustrated, upset, or embarrassed about my problems than I do now”:  $M = 2.13$ ;  $SD = 1.69$ ; Top 2 = 28%); 3) item 13 (“if I don’t get better during therapy, my problems will never go away”:  $M = 1.87$ ;  $SD = 1.75$ ; Top 2 = 22%). The fourth and fifth highest average rated items were item 12 (“even if therapy helps, my problems will just come back”:  $M = 1.64$ ;  $SD = 1.55$ ; Top 2 = 12%); and 5) and item 3 (“therapy will be too hard”:  $M = 1.55$ ;  $SD = 1.58$ ; Top 2 = 16%), while the fourth and fifth mostly like items to receive the highest response options were item 5 (“therapy won’t help me”:  $M = 1.49$ ;  $SD = 1.68$ ; Top 2 = 19%); and item 4 (“if I go for therapy, people might think my problems are bigger than they really are”:  $M = 1.49$ ;  $SD = 1.75$ ; Top 2 = 19%).

Three items were infrequently endorsed by youth and demonstrated significant item skewness, specifically items 9 (“therapy will make me have new problems”:  $M = 0.92$ ;  $SD = 1.42$ ), 11 (“therapy will make me change in ways I won’t like”:  $M = 0.89$ ;  $SD = 1.37$ ), and 15 (“therapy will make my problems worse”:  $M = 0.71$ ;  $SD = 1.29$ ). These three items similarly inquire, unlike any other items on the scale, about worries that therapy will produce a negative change in the person and/or their symptoms. Given the shared non-endorsement of this domain as indicated by the low overall frequency with which individuals endorsed these items, it was determined that these items should be removed from the scale.

Using the revised 17-item scale (see Appendix E), overall, treatment worries were endorsed at mild levels by children with an item average of 1.48 (Range: 0 – 70;  $M = 25.21$ ,  $SD = 18.33$ ). Regarding response profiles, similarly large portions of youth reported few concerns (38%;  $n = 36$ ) or mild levels of concern (42%;  $n = 39$ ). A small portion of the sample reported

moderate levels of concern (19%;  $n = 18$ ), while only one youth consistently reported high levels of concern (1%;  $n = 1$ ).

*Specific Aim 2.* Examination of the factor structure of the TWQ-C was completed using a common factor analysis, under a promax oblique rotation (recommended when factors may be interrelated). The eigenvalue method, examination of scree plots, and parallel analysis was used to determine the number of factors. Consistent with development of the TAQ (Rowa et al., 2014), items were required to have a minimum factor loading of .32 (Tabachnick & Fidell, 2001) and items were considered double loaded if values were within .10 of each other. To confirm removal of items 9, 11, and 15, the factor analysis was completed with and without their inclusion. When included, the TWQ-C demonstrated less well defined factors and these items exhibited low factor loadings, supporting their removal. Therefore, all following analyses and results are for the 17-item scale.

Eigenvalues, the scree plot, and parallel analysis generally supported the hypothesized three-factor structure (1-Factor: 7.27; 2-Factor: 1.12; 3-Factor: 0.97; 4-Factor: 0.36; See Figure 1). Upon item examination, the three factor model produced unique factors (see Table 4). The factors related to: A) Difficulty: worry about difficulties and inconveniences associated with engaging in therapy (8 items); B) Failure: worry about treatment failing and associated consequences (4 items) and C) Stigma: worry about perceptions or stigma-related consequences to engaging in treatment (5 items). Item 5 (i.e., I worry that treatment won't help me) loaded moderately onto the Difficulty factor in addition to a strong loading on the Failure factor; however, the loading difference was greater than .10 so the item was retained on the Failure factor. All factors were significantly correlated: Difficulty and Failure: ( $r = .61, p < .001$ ); Difficulty and Stigma: ( $r = .66, p < .001$ ); and Failure and Stigma ( $r = .55: p < .001$ ). Factor item

means were highest for worries related to Failure ( $M = 1.78$ ), followed by Difficulty ( $M = 1.44$ ), and Stigma ( $M = 1.31$ ).

Figure 1. Scree Plots of Eigenvalues for the TWQ-C and Parallel Analysis

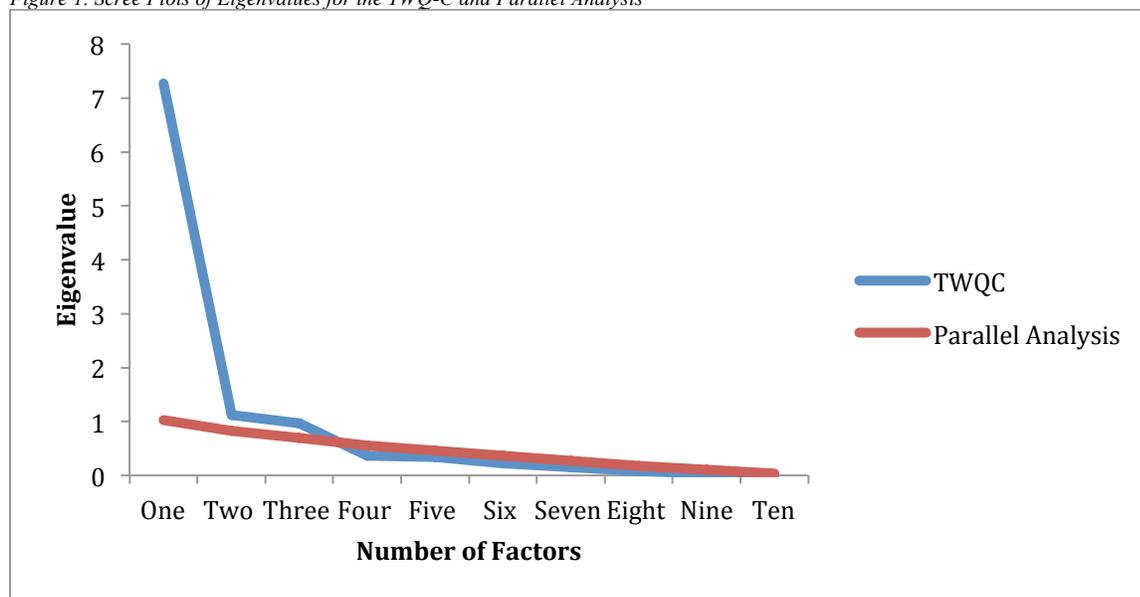


Table 4. Factor Structure of the TWQ-C

Item content	Difficulty	Failure	Stigma
1 ...therapy is going to make me miss too much school or other important activities outside of school (clubs, sports, lessons, etc).	<b>.429</b>	-.122	.250
2 ...if I don't get better, I'll feel more frustrated, upset, or embarrassed about my problems than I do now.	-.083	<b>.560</b>	.160
3 ...therapy will be too hard.	<b>.689</b>	.090	-.038
4 ...if I go for therapy, people might think my problems are bigger than they really are.	.067	.050	<b>.714</b>
5 ...therapy won't help me.	.461	<b>.571</b>	-.224
6 ...my therapist won't understand me or my problems.	<b>.583</b>	.304	-.086
7 ...if people find out I'm in therapy, it could be bad for my life (get teased, ruin my future).	-.032	.026	<b>.777</b>
8 ...therapy will be really upsetting.	<b>.741</b>	.229	-.054
10 ...starting therapy means that there is really something wrong with me.	.074	.058	<b>.728</b>
12 ...even if therapy helps, my problems will just come back.	.167	<b>.723</b>	.094
13 ...if I don't get better during therapy, my problems will never go away.	-.028	<b>.672</b>	.209
14 ...going for therapy will make me feel embarrassed.	-.005	.039	<b>.805</b>
16 ...therapy is going to take up time I could spend doing things I like.	<b>.607</b>	-.313	.095
17 ...I will have to talk about things I don't want to talk about.	<b>.494</b>	.084	.213
18 ...therapy will make me change things I don't want to change.	<b>.647</b>	.201	.037
19 ...therapy will make me change how I deal with my problems and I'll lose control.	<b>.496</b>	.201	.217
20 ...if I don't get better during therapy, my parent(s) will be disappointed in me.	.292	.101	<b>.430</b>

*Specific Aim 3.* Evaluation of the reliability of the TWQ-C focused on the internal consistency and test-retest reliability of the measure. Internal consistency of the measure was evaluated using Cronbach's alpha (Cronbach, 1951). As hypothesized, the TWQ-C demonstrated excellent internal consistency in children ( $\alpha = .92$ ). Internal consistency of each factor was in the good range (Difficulty:  $\alpha = .87$ ; Failure:  $\alpha = .87$ ; and Stigma:  $\alpha = .87$ ). For the subsample of

youth that completed the TWQ-C twice ( $n = 14$ ), Pearson correlation coefficients were used to compare the measure's total score between time-points. Test-retest reliability was excellent for total score ( $r = .92, p < .001$ ) and in the good range for Difficulty ( $r = .88, p < .001$ ), Failure ( $r = .89, p < .001$ ), and Stigma ( $r = .86, p < .001$ ).

*Specific Aim 4.* Evaluation of the validity of the TWQ-C focused on the convergent validity and divergent validity. Convergent validity was assessed by examining Pearson correlation coefficients between the measure and child-reports of anxiety severity, impairment, and treatment expectancy, as well as clinician-rated anxiety severity/impairment. The TWQ-C demonstrated good convergent validity, as evidenced by moderate positive correlations with child-rated levels of anxiety severity as measured by the SCAS ( $r = .42, p < .001$ ) and treatment expectancy as measured by the TEQ-C ( $r = -.58, p < .001$ ). Of SCAS subscales, social anxiety ( $r = .47, p < .001$ ), panic symptoms ( $r = .38, p = .001$ ), and generalized anxiety ( $r = .37, p = .001$ ) were significantly correlated with TWQ-C total scores. These relationships were consistent across factors (see Table 5), although in general the Failure factor showed the strongest relationships with self-reported anxiety while the Difficulty factor demonstrated the weakest. Overall treatment worries were not significantly related to child-rated anxiety-related impairment ( $r = .20, p = .06$ ). Clinician-rated anxiety severity/impairment ( $r = .11, p = .31$ ) was also not associated with child-rated treatment worries.

Table 5. Convergent Validity of the TWQ-C

	Child-Rated Anxiety Symptoms						Anxiety Impairment	Treatment Expectancy	Clinician-Rated Anxiety	
	Total	Separation	Social	OCD	Panic	Injury				
Total	.42**	.09	.47**	.17	.38**	.19	.37**	.20	-.58**	.11
Difficulty	.30**	.08	.33**	.11	.27*	.20	.24*	.17	-.59**	.10
Failure	.45**	.14	.48**	.18	.39**	.10	.48**	.23*	-.48**	.07
Stigma	.38**	.01	.47**	.18	.36**	.17	.31**	.21*	-.39**	.12

\*  $p < .05$ ; \*\*  $p < .001$

Divergent validity was assessed by examining Pearson correlation coefficients between the TWQ-C and scales of externalizing symptoms, social desirability ratings, and frequency of

physical exercise (see Table 6). The TWQ-C exhibited weak to small (all non-significant) correlations with child ratings of physical exercise ( $r = -.17, p = .10$ ), child ratings of social desirability ( $r = -.11, p = .30$ ) and parent-rated externalizing symptoms ( $r = .04, p = .72$ ).

Table 6. Divergent Validity of the TWQ-C

	Social	Total	Externalizing Symptoms		Exercise
	Desirability		ADHD	ODD	
Total	-.13	.04	-.11	.05	-.17
Difficulty	-.15	.04	-.16	.05	-.13
Failure	-.09	-.01	-.01	-.01	-.21*
Stigma	-.13	.06	-.07	.09	-.13

\*  $p < .05$ ; \*\*  $p < .001$

*Exploratory Aim 1.* Exploration of variables that may influence the nature and extent of treatment concerns was completed using  $t$ -tests and Pearson correlation coefficients. In particular, TWQ-C scores were examined for their relationship to child age, gender, past psychosocial treatment, current medication status, anxiety sensitivity, patient insight, avoidance, and extent of family accommodation. Treatment worries did not differ significantly between males and females ( $t(92) = .68, p = .50$ ), but did show a small positive association with age ( $r = .23, p = .02$ ), which appeared to be driven by responses on the Failure factor ( $r = .31, p = .003$ ). Past psychotherapy was not associated with child worries ( $t(92) = -.85, p = .39$ ), nor was medication status ( $t(92) = -1.11, p = .27$ ). Child ratings of anxiety sensitivity were highly related to treatment worries ( $r = .55, p < .001$ ), while child-rated avoidance, parent-rated family accommodation, parent-rated depression, anxiety, and stress, and clinician-rated child insight were not significantly associated with treatment worries (see Table 7).

Table 7. Exploratory Clinical Correlates of the TWQ-C

	Age	Anxiety Sensitivity	Avoidance	Family Accommodation	Insight	Parent Depression	Parent Anxiety	Parent Stress
Total	.23*	.55**	.11	.02	-.04	.09	.16	.13
Difficulty	.17	.44**	.07	.02	.05	-.06	.08	.07
Failure	.31**	.50**	.22*	-.01	-.17	.15	.14	.17
Stigma	0.16	.51**	.03	.02	-.04	-.02	.23*	.11

\*  $p < .05$ ; \*\*  $p < .001$

## Treatment Worries Questionnaire – Parent Version

*Specific Aim 1.* Evaluation of the nature and extent of treatment worries endorsed by parents was completed by examining averages and standard deviations of the TWQ-P items and total scores. Based on the measures' scale, the following guide for item averages was used: A) no concerns:  $M < 1$ ; B) mild:  $1.0 \leq M < 2.5$ ; B) moderate:  $2.5 \leq M < 4.0$ ; and C) high:  $M \geq 4.0$ .

Table 8 displays the means, standard deviations, and percentage of parents endorsing the highest two item scores for all items of the TWQ-P. For parents, the five items that had the highest item averages and the highest frequency of top response option endorsement (with the exclusion of item 12) were: 1) item 2 (“if therapy doesn’t work, my child will feel more frustrated, upset, or embarrassed about their symptoms than they already do”:  $M = 2.24$ ;  $SD = 1.42$ ; Top 2 = 22% ); 2) item 13 (“if therapy doesn’t work, my child’s symptoms will never go away”:  $M = 2.02$ ;  $SD = 1.52$ ; Top 2 = 20%); 3) item 12 (“even if therapy helps, my child’s symptoms will return”:  $M = 1.80$ ;  $SD = 1.32$ ; Top 2 = 9%); 4) item 23 (“if therapy doesn’t work, we will have to try methods of treatment I am not as comfortable with”:  $M = 1.53$ ;  $SD = 1.66$ ; Top 2 = 17%); and 5) and item 21 (“meeting the logistic demands of therapy will be too difficult”:  $M = 1.55$ ;  $SD = 1.33$ ; Top 2 = 10%).

The three items least endorsed on average by parents were: 1) item 25 (“therapy will make my child change in ways I won’t like”:  $M = 0.20$ ;  $SD = 0.54$ ); 2) item 11 (“therapy will change my child in ways he/she won’t like”;  $M = 0.25$ ;  $SD = 0.53$ ); and 3) item 10 (“starting my child in therapy means admitting there is something wrong with him/her”:  $M = 0.27$ ;  $SD = 0.53$ ). Item 25 expresses the same theme as the poorly endorsed/removed items from the TWQ-C and further supports the removal of this theme from the questionnaires. Therefore, consistent with the TWQ-C, items 9, 11, 15, and 25 were removed. Other infrequently endorsed items from the

TWQ-P were maintained for examination in alternative samples where it is believe these worries may be more relevant (e.g., non-treatment seeking sample).

Table 8. Individual Item Outcomes of the TWQ-P

	Item Content	M	SD	Top 2 (%)
1	...therapy is going to get in the way of my child's education or extracurricular activities.	0.83	1.25	2
2	...if therapy doesn't work, my child will feel more frustrated, upset, or embarrassed about their symptoms than they already do.	2.24	1.42	22
3	...therapy will be too hard for my child.	1.15	1.27	17
4	...if my child goes for therapy, people might think his/her problems are bigger than they really are.	0.70	1.07	4
5	...therapy won't help my child.	1.45	1.50	12
6	...my child's therapist won't understand my child or my child's symptoms.	0.80	1.17	3
7	...if people find out my child is in therapy, it could negatively impact my child's life (e.g., be teased, ruin future opportunities).	1.08	1.38	9
8	...therapy will be upsetting for my child.	1.15	1.33	6
9	...therapy will somehow result in new symptoms.	0.67	1.03	8
10	...starting my child in therapy means admitting there is something wrong with him/her.	0.27	0.70	1
11	...therapy will change my child in ways he/she won't like.	0.25	0.53	0
12	...even if therapy helps, my child's symptoms will return.	1.80	1.32	9
13	...if therapy doesn't work, my child's symptoms will never go away.	2.02	1.52	20
14	...going for therapy will make my child feel embarrassed.	1.08	1.24	7
15	...therapy will make my child's symptoms worse.	0.42	0.92	3
16	...therapy will be a waste of time and money.	0.44	0.76	0
17	...my child won't be honest in therapy.	1.26	1.30	7
18	...my child's therapist will think I'm a bad parent.	0.55	1.02	2
19	...therapy is going to get in the way of my personal responsibilities (e.g., work, family).	0.99	1.21	4
20	...therapy may put my child's privacy at risk.	0.60	1.03	2
21	...meeting the logistic demands of therapy (e.g., scheduling, cost, transportation) will be too difficult.	1.55	1.33	10
22	...if therapy doesn't work, I will feel more frustrated, upset, or embarrassed about my child's symptoms than I already do.	1.02	1.26	6
23	...if therapy doesn't work, we will have to try methods of treatment I am not as comfortable with (medication, hospitalization, etc).	1.53	1.66	17
24	...my child will not make an effort to improve during therapy.	1.07	1.40	9
25	...therapy will make my child change in ways I won't like.	0.20	0.54	0
26	...therapy will require me to act in ways that will upset my child or make my child think I am mean.	0.74	1.04	2

Using the revised 22-item scale (see Appendix F), overall, treatment worries were endorsed at low-mild levels with the item average falling at 1.11 (Range: 0 – 70;  $M = 24.31$ ,  $SD = 14.72$ ). Regarding total score distribution, the majority of parents reported few concerns (50%;  $n = 46$ ), a large portion endorsed mild concerns (44%;  $n = 40$ ) and a small portion reported moderate concerns (6%;  $n = 6$ ).

*Specific Aim 2.* Examination of the factor structure of the TWQ-P was completed using a common factor analysis, under a promax oblique rotation (recommended when factors may be interrelated). The eigenvalue method and examination of scree plots was used to determine the number of factors. Consistent with development of the TAQ (Rowa et al., 2014), items were required to have a minimum factor loading of .32 (Tabachnick & Fidell, 2001) and items were

considered double loaded if values were within .10 of each other. Consistent with the TWQ-C, removal of items 9, 11, 15, and 25 was confirmed by completing the factor analysis with and without their inclusion. When included, the TWQ-P demonstrated less well defined factors and these items exhibited low factor loadings, supporting their removal. Therefore, all following analyses and results are for the 22-item scale.

Eigenvalues, the scree plot, and parallel analysis suggested a four factor model (1-Factor: 6.18; 2-Factor: 1.69; 3-Factor: 1.51; 4-Factor: 1.17; 5-Factor: 0.70; 6-Factor: 0.65; see Figure 2). Upon item examination, the four factor model produced unique and theoretically consistent factors (see Table 9). The factors related to: A) Inconvenience: worry about therapy getting in the way of life (4 items); B) Adverse Reactions: worry about therapy's consequences on emotional functioning or symptoms (8 items); and C) Stigma: worry about perceptions or stigma-related consequences to engaging in treatment (6 items); and D) Therapy Process: worry about aspects of the therapy process (4 items). Regarding factor correlations, moderate correlations were observed for Adverse Reactions and Stigma ( $r = .54, p < .001$ ); Adverse Reactions and Therapy Process ( $r = .48, p < .001$ ); and Stigma and Therapy Process ( $r = .32, p < .001$ ). Inconvenience demonstrated small correlations with Adverse Reactions ( $r = .26, p = .01$ ) and Stigma ( $r = .28, p = .007$ ), but did not demonstrate a relationship with Therapy Process ( $r = .19, p = .06$ ). Factor item means were highest for worries related to Adverse Reactions ( $M = 1.55$ ), followed by Inconvenience ( $M = 0.95$ ), Therapy Process ( $M = 0.90$ ), and Stigma ( $M = 0.76$ ).

Figure 2. Scree Plots of Eigenvalues for the TWQ-P and Parallel Analysis

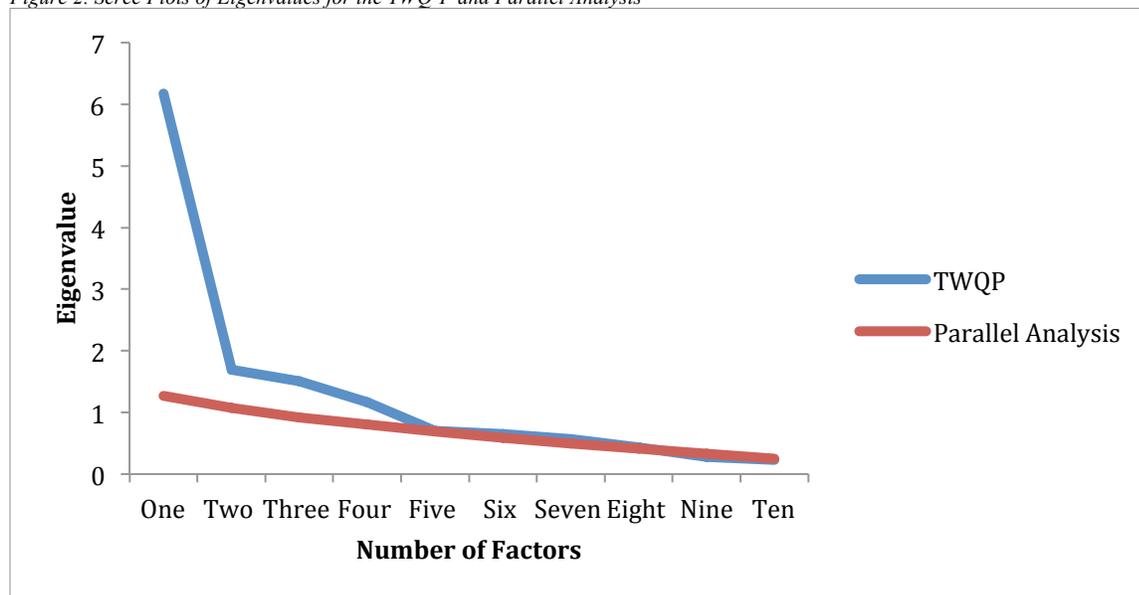


Table 9. Factor Structure of the TWQ-P

	Item Content	Inconven	Adverse	Stigma	Process
1	...therapy is going to get in the way of my child's education or extracurricular activities.	<b>.456</b>	.127	.047	.251
2	...if therapy doesn't work, my child will feel more frustrated, upset, or embarrassed about their symptoms than they already do.	-.104	<b>.401</b>	.229	-.026
3	...therapy will be too hard for my child.	-.002	<b>.853</b>	-.179	-.070
4	...if my child goes for therapy, people might think his/her problems are bigger than they really are.	.011	.019	<b>.749</b>	.008
5	...therapy won't help my child.	.139	<b>.462</b>	.105	-.134
6	...my child's therapist won't understand my child or my child's symptoms.	-.071	.274	<b>.419</b>	-.159
7	...if people find out my child is in therapy, it could negatively impact my child's life (e.g., be teased, ruin future opportunities).	.153	-.102	<b>.815</b>	-.083
8	...therapy will be upsetting for my child.	-.116	<b>.781</b>	.174	.153
10	...starting my child in therapy means admitting there is something wrong with him/her.	-.089	.101	<b>.587</b>	-.056
12	...even if therapy helps, my child's symptoms will return.	.278	<b>.532</b>	.014	-.084
13	...if therapy doesn't work, my child's symptoms will never go away.	.106	<b>.416</b>	.158	-.215
14	...going for therapy will make my child feel embarrassed.	-.094	.217	<b>.650</b>	.135
16	...therapy will be a waste of time and money.	<b>.356</b>	.146	-.079	-.189
17	...my child won't be honest in therapy.	.037	-.003	.040	<b>-.546</b>
18	...my child's therapist will think I'm a bad parent.	-.066	-.247	.342	<b>-.669</b>
19	...therapy is going to get in the way of my personal responsibilities (e.g., work, family).	<b>.865</b>	.097	-.042	.097
20	...therapy may put my child's privacy at risk.	.216	-.033	<b>.373</b>	.006
21	...meeting the logistic demands of therapy (e.g., scheduling, cost, transportation) will be too difficult.	<b>.623</b>	-.334	.179	-.223
22	...if therapy doesn't work, I will feel more frustrated, upset, or embarrassed about my child's symptoms than I already do.	-.007	<b>.387</b>	.117	-.239
23	...if therapy doesn't work, we will have to try methods of treatment I am not as comfortable with (medication, hospitalization, etc).	.052	<b>.576</b>	.050	-.002
24	...my child will not make an effort to improve during therapy.	.057	.242	-.285	<b>-.735</b>
26	...therapy will require me to act in ways that will upset my child or make my child think I am mean.	-.179	.262	.003	<b>-.615</b>

*Specific Aim 3.* Evaluation of the reliability of the TWQ-P focused on the internal consistency and test-retest reliability of the measures. Internal consistency of the measure was evaluated using Cronbach's alpha (Cronbach, 1951). As hypothesized, the TWQ-P demonstrated good internal consistency in parents ( $\alpha = .88$ ). Internal consistency of each factor varied, falling in the good range for the Adverse Reactions ( $\alpha = .85$ ) and Stigma ( $\alpha = .80$ ), in the acceptable range for the Therapy Process factor ( $\alpha = .77$ ), and in the questionable range for the Inconvenience factor ( $\alpha = .67$ ). For the subsample of parents that completed the TWQ-P twice ( $n = 14$ ), Pearson correlation coefficients were used to compare the measure's score between time-points. For parents, test-retest reliability was in the acceptable range for total score ( $r = .78, p = .001$ ), in the good range for Adverse Reactions ( $r = .81, p < .001$ ), in the acceptable range for Stigma ( $r = .76, p = .002$ ), and in the questionable range for Inconvenience ( $r = .61, p = .02$ ) and Therapy Process ( $r = .65, p = .01$ ).

*Specific Aim 4.* Evaluation of the validity of the TWQ-P focused on the convergent validity and divergent validity. Convergent validity was assessed by examining Pearson correlation coefficients between the measure and parent-reports of anxiety severity, impairment, treatment expectancy, and clinician rated anxiety severity/impairment (see Table 10). Partially confirming hypotheses, the TWQ-P demonstrated convergent validity in some areas, as evidenced by a moderate correlation with parent-rated anxiety-related impairment (CSDS-P;  $r = .37, p < .001$ ), but only a small correlation with parent-rated anxiety SCAS-P ( $r = .27, p = .01$ ). Rather than the consistent relationships observed with the TWQ-C, these relationships appeared specific to treatment worry factors. Specifically, the Adverse Reactions and Process factors demonstrated good convergent validity with the intended measures, as evidenced by small-moderate significant correlations with parent-rated anxiety severity, impairment, and clinician-

rated anxiety, while the Inconvenience ( $r = -.02, p = .86$ ) and Stigma ( $r = .10, p = .36$ ) factors demonstrated minimal to no relationships with these measures. Of SCAS-P subscales, only panic symptoms were significantly related to TWQ-P total scores ( $r = .24, p = .02$ ), while OCD, Panic, and GAD subscales correlated with the Adverse Reactions factor, and Social and Panic correlated with the Process factor. Parent treatment worries were not significantly correlated with treatment expectancy (TEQ-P;  $r = -.17, p = .11$ ), which held true across factors.

Table 10. Convergent Validity of the TWQ-P

	Total	Parent-Rated Child Anxiety					GAD	Anxiety Impairment	Treatment Expectancy	Clinician-Rated Anxiety
		Separation	Social	OCD	Panic	Injury				
Total	.27*	.12	.19	.20	.23*	.05	.20	.38**	-.17	.22*
Inconvenience	-.02	-.11	.071	.052	.01	-.05	-.07	.15	-.07	.04
Adverse	.32**	0.16	0.17	.30**	.26*	-.01	.26*	.38**	-.14	.29**
Stigma	.10	.05	.09	-.03	.11	.04	.11	.13	-.10	-.05
Process	.30**	.16	.22*	.16	.23*	.19	.17	.41**	-.19	.30**

\*  $p < .05$ ; \*\*  $p < .001$

Divergent validity was assessed by examining Pearson correlation coefficients between the TWQ-C and scales of externalizing symptoms, social desirability ratings, and frequency of physical exercise (see Table 11). Hypotheses for divergent validity were confirmed, with the TWQ-P exhibiting small correlations with frequency of physical exercise ( $r = .07, p = .54$ ), parental ratings of social desirability ( $r = .12, p = .25$ ), and externalizing symptoms ( $r = .04, p = .72$ ). This was largely consistent across factors.

Table 11. Divergent Validity of the TWQ-P

	Social	Externalizing Symptoms		Exercise	
	Desirability	Total	ADHD		ODD
Total	.12	.04	.10	-.01	.07
Inconvenience	-.02	.21	.17	.14	-.07
Adverse	.14	-.01	.05	-.02	-.02
Stigma	.17	-.11	.03	-.17	.21*
Process	-.01	.13	.10	.10	.01

\*  $p < .05$ ; \*\*  $p < .001$

*Exploratory Aim 1.* Exploration of variables that may influence the nature and extent of treatment concerns was completed using  $t$ -tests and Pearson correlation coefficients. In particular, TWQ-C scores were examined for their relationship to child age, gender, anxiety sensitivity, patient insight, avoidance, and extent of family accommodation. Parent treatment

worries did not differ significantly between male and female children ( $t(90) = .39, p = .69$ ) or mothers and fathers ( $t(87) = 1.26, p = .21$ ), and was not associated with child age ( $r = -.05, p = .62$ ). Past psychotherapy was also not associated with parent worries ( $t(90) = -.18, p = .86$ ), nor was medication status ( $t(90) = -1.10, p = .27$ ).

Regarding total score, parental treatment worries were moderately correlated with parent depression ( $r = .35, p = .001$ ), and exhibited small correlations with family accommodation ( $r = .23, p = .03$ ) and parent stress ( $r = .25, p = .02$ ). In general, parent correlates were variable across treatment worries factors (see Table 12). Consistent with the total score, the Process factor exhibited moderate correlations with family accommodation, and small correlations with parental depression; however, it was also the only scale to demonstrate a significant relationship to parent-rated child avoidance ( $r = .35, p = .001$ ) and clinician-rated insight ( $r = .30, p = .006$ ). The Adverse Reactions factor demonstrated small correlations with family accommodation and parent depression. Conversely, the Inconvenience factor did not correlate with family accommodation, but did exhibit moderate correlations with parent depression, and parent stress. The Stigma factor only showed a small correlation with parent depression.

Table 12. Exploratory Clinical Correlates of the TWQ-P

	Age	Anxiety Sensitivity	Avoidance	Family Accommodation	Insight	Parent Depression	Parent Anxiety	Parent Stress
Total	-.05	.17	.19	.23*	.19	.35**	.14	-.05
Inconvenience	.07	.08	.07	-.05	-.08	.30**	.09	.28**
Adverse	-.06	.20	.06	.24*	.19	.28**	.10	-.06
Stigma	-.08	.09	.16	.06	.10	.23*	.10	-.08
Process	-.05	.05	.35**	.35**	.30**	.23*	.11	-.05

### Inter-rater Correspondence

*Exploratory Aim 2.* Exploration of the correspondence between the TWQ-C and TWQ-P factors was conducted using Pearson correlation coefficients to examine item correspondence.

Item correlations ranged from no relationship (item 10:  $r = .07, p = .50$ ) to moderately correlated

(item 8:  $r = .43, p < .0001$ ). Using child-determined factors, correlations were examined between factors. Parents and children agreed most on the Difficulty factor ( $r = .45, p < .001$ ), followed by Failure ( $r = .31, p = .003$ ), and Stigma ( $r = .22, p = .03$ ). All items are presented in Table 13.

Table 13. Inter-rater Correlations between Matched Items of the TWQ

		CF	PF	$r$	$p$
1	...therapy is going to make me miss too much school or other important activities outside of school (clubs, sports, lessons, etc).	D	I	.29	.007
2	...if I don't get better, I'll feel more frustrated, upset, or embarrassed about my problems than I do now.	F	A	.32	.002
3	...therapy will be too hard.	D	A	.35	.001
4	...if I go for therapy, people might think my problems are bigger than they really are.	S	S	.23	.03
5	...therapy won't help me.	F	A	.14	.20
6	...my therapist won't understand me or my problems.	D	S	.24	.02
7	...if people find out I'm in therapy, it could be bad for my life (get teased, ruin my future).	S	S	.09	.37
8	...therapy will be really upsetting.	D	A	.43	<.001
10	...starting therapy means that there is really something wrong with me.	S	S	.07	.50
12	...even if therapy helps, my problems will just come back.	F	A	.18	.09
13	...if I don't get better during therapy, my problems will never go away.	F	A	.25	.015
14	...going for therapy will make me feel embarrassed.	S	S	.21	.048

CSS = Child Factor; PSS = Parent Factor; D = Difficulty; F = Failure; S = Stigma; I = Inconvenience; A = Adverse Reaction

## Discussion

Anxiety disorders are common and impairing conditions in youth (Kessler et al., 2012; Alfano et al., 2007; Conelea et al., 2011; Mychailyszyn et al., 2010; Storch, Larson, et al., 2010). Although CBT has demonstrated considerable efficacy in treating these conditions, a significant portion of youth fail to demonstrate adequate or optimal response (In-Albon & Schneider, 2007; Pediatric, 2004; Walkup et al., 2008). Initial evidence suggests that treatment worries, which can be defined as worries regarding involvement, requirements, aspects, and consequences of treatment, relate to a number of clinical factors associated with reduced treatment response (Selles et al., 2013; Wu et al., 2015). These results suggested that treatment worries may be an important understudied construct and warrant further investigation; however, they relied on disorder-specific questionnaires directly translated from an adult version, and therefore were limited in the breadth of their potential use, failed to capture worries that may be unique to youth, and lacked investigation of parental worries.

Therefore, the present study examined the initial outcomes and psychometric properties of the TWQ-C and TWQ-P: brief non-disorder/treatment specific scales developed to evaluate concerns about initiating psychosocial treatment in both youth and their parent. For this initial evaluation, participants were youth aged 7-17, along with their primary parent (i.e., the one present or the one planning to be primarily involved in treatment), who were presenting for CBT for an anxiety disorder at one of two specialty outpatient clinics. The final sample of 94 contained 62% females and 88% mothers with an average patient age of 12.31 years.

### **Treatment Worries Questionnaire – Child Version**

Outcomes of the TWQ-C were consistent with prior studies of treatment worries (Rowa et al., 2014; Selles et al., 2013; Wu et al., 2015), with low levels of worries reported on average, but moderate levels of concern for a small portion of youth. Some concerns were generally viewed as problematic by much of the sample. Specifically, items 2 (“if I don’t get better, I’ll feel more frustrated, upset, or embarrassed about my problems than I do now”), 13 (“if I don’t get better during therapy, my problems will never go away”), and 17 (“I will have to talk about things I don’t want to talk about”), were endorsed in the mild-moderate range and had a sizeable portion of responders who endorsed one of the highest two response options. Of the 20 initial items, 17 items had >10% of the sample endorse one of the highest two response options, suggesting most items had salience for at least a portion of youth. Three items, which focused on treatment making things worse (i.e., 9, 11, 15), were not frequently endorsed and were removed from the scale.

The TWQ-C exhibited a three factor solution with good item-factor loadings. The largest factor with eight items, Difficulty, focused on worries associated with treatment being inconvenient, being hard/upsetting, and involving things the child does not want to do. Five items loaded onto the Stigma factor, which focused on worries around how personal or external perceptions of mental health/treatment could impact their lives if they complete treatment. Finally, four items loaded onto the Failure factor which focused on worries associated with consequences of treatment not effectively improving symptoms. This was also the factor with the highest average item mean, indicating it is the most prominent area of concern for these youth. The factors were also all highly correlated with each other suggesting that they tap into a consistent underlying construct.

Psychometric outcomes for the TWQ-C were favorable. The scale, and identified factors, exhibited good to excellent internal consistency ( $\alpha = .87 - .92$ ) and test-retest reliability ( $r = .86 - .92$ ). Convergent validity for the TWQ-C was evident through moderate positive correlations with child-ratings of anxiety severity and treatment expectancy. The relationship between treatment expectancy and treatment worries in children is not surprising. Children who do not expect treatment to be effective are likely concerned about it failing and/or more likely to view it as not worth the effort. Child ratings were not correlated with child-ratings of anxiety-related impairment, which suggests that while worries are associated with the number and frequency of anxiety symptoms, they are not impacted by the extent to which symptoms interfere with the child's life. Divergent validity for the TWQ-C was established by small and non-significant correlations with child's frequency of physical exercise, ratings of social desirability, and parent-ratings of externalizing symptoms, which was also consistently observed across factors.

Regarding additional clinical correlates, the TWQ-C exhibited strong associations with anxiety sensitivity. The relationship between anxiety sensitivity and treatment worries was also expected. Children who are particularly bothered by their experiences of anxiety, or who experience physical symptoms more often, may view the idea of exposure therapy as more aversive and as a result be more worried about initiating treatment. In addition, they may be more concerned about treatment failure as this would result in a continuation of what they perceive as highly disturbing experiences. The TWQ-C, particularly the Failure factor, was also mildly associated with age. The correlation between this factor and age may suggest that as youth age, they become more concerned about the potential that their symptoms may not improve or remit. This worry may be realistic for youth given that intensity of symptoms tends to

increase with age (Selles, Storch, & Lewin, 2014) and increased symptom severity is associated with reduced treatment response (Garcia et al., 2010).

Surprisingly, patient insight was not related to level of treatment worries. This may be due to a non-relationship between these factors, but also could be a result of differing interpretations of treatment within insight levels. For example, one could theorize that patients with low insight would be highly worried about treatment because they can't grasp why it would help and don't think they need it. On the other hand, patients with minimal insight may simply be detached from the whole therapeutic process and exhibit little thought or concern over it at all. Similarly, patients with good insight could be concerned about the prospect of treatment failure because they understand how problematic their symptoms are, or, on the other hand, may have less concerns because they can more easily grasp why/how treatment is likely to be helpful. The other explored clinical correlates, specifically child avoidance, family accommodation, and parental depression, stress, and anxiety, also did not demonstrate meaningful relationships with treatment worries. The non-relationships in many of these variables may be a further reflection of the lack of a relationship between treatment worries and anxiety-related impairment, as many of these additional correlates were related to the impact of the child's symptoms on their life (e.g., avoidance, family accommodation); however, it may also be a reflection of the fact that, other than avoidance, these additional explored correlates were rated by the parent rather than the child.

### **Treatment Worries Questionnaire – Parent Version**

Parent responses on the TWQ-P indicated lower levels of treatment concern and less variability in scores than seen in children. Mean item endorsement and percentage of top tier

responders were generally consistent, with the highest endorsed concerns falling in the mild-moderate range and focused on consequences should symptoms remain following treatment (e.g., items 2, 13). Beyond these, the majority of remaining items were either infrequently or minimally endorsed, including 13 items with item means in the no concerns range. While items that also fell within this range on the TWQ-C (i.e., 9, 11, 15) along with item 25 (which shared the same theme) were removed, the other infrequently endorsed items were retained with the belief that these items may still be relevant for the measure in alternate samples.

Metrics used in the exploratory factor analysis of the TWQ-P did not strongly point to any specific factor solution; however, examination of item loadings suggested that a four-factor solution retained all remaining items with largely acceptable factor loadings and minimal cross-loadings. The largest factor with 8 items was Adverse Reactions, which focuses on worries related to the emotional consequences of treatment or treatment failure. The Stigma scale contained the same four matched items as were identified for the TWQ-C Stigma factor, but also included matched item 6 (i.e., my therapist won't understand my child or my child's symptoms), which loaded onto the Difficulty factor for children. Given that the question reflects an external rather than internal evaluation for the parent as compared to the child, this difference is understandable. Finally, a four item factor labeled Inconvenience, which focuses on worries related to managing the demands of treatment and its value, as well as a four item factor labeled Process, which focused on worries related to how the child and/or parent will experience aspects of therapy (e.g., low motivation, seem like bad parent) were identified. Correlations between factors varied, with the Inconvenience factor demonstrating the weakest association with the other factors.

Psychometric outcomes for the TWQ-P were moderately supported, although not to the same extent as observed for the TWQ-C. The scale exhibited good internal consistency and acceptable test-retest reliability for the total score, while factors varied from questionable to good in regards to internal consistency ( $\alpha = .67 - .85$ ) and test-retest reliability ( $r = .61 - .81$ ). Convergent validity for the TWQ-P total score was evident through moderate positive correlations with parent-ratings of anxiety impairment, but not through relationships with parent-rated child anxiety severity or treatment expectancy. However, when factors were examined it became evident that two factors, Adverse Reactions and Process, were correlated with these variables, while Stigma and Inconvenience were not. Along with the reduced relationships between factors reported above, this suggests that in contrast to children, treatment worries may not represent a unitary overall construct in parents. Given the nature of the worries addressed in the Inconvenience and Process factors are primarily around the decision to engage in treatment at all, this finding is not particularly surprising. As a treatment seeking sample, this decision to complete treatment is true across the levels of the child's severity, resulting in the lack of relationship observed between these factors. For example, while more severe symptoms may have initially increased the parent's perceived need for treatment (leading them to present for treatment), it would not necessarily impact their perceived ability to meet the demands of therapy. Regardless, alternative constructs (e.g., parental perceptions of mental illness, parent-rated availability) may serve better as measures of convergent validity for these factors. Divergent validity for the TWQ-C was supported by small and non-significant correlations with child's frequency of physical exercise, as well as parent-ratings of externalizing symptoms and social desirability.

Regarding additional clinical correlates, outcomes varied in their consistency across factors of the TWQ-P. Child age, anxiety sensitivity, and parent-rated anxiety were consistently not related to treatment worries, while parent-rated depressive symptoms were consistently associated at small-moderate levels. The Process factor was consistently related to parent-rated aspects of the child's anxiety profile, including relationships with avoidance, family accommodation, and insight. These correlations may simply reflect this factor's general association with parent-rated child impairment; however, these unique relationships are consistent with the factors themes as these correlates would be expected to lead to increased problems regarding child honesty (e.g., insight), child effort (e.g., avoidance), and the parent being mean/a poor parent (e.g., family accommodation). Similarly the relationships observed for the Inconvenience factor support its convergent validity as child aggressive behavior, low parental energy and mood, and parental stress levels would all be expected to increase the difficulty in meeting the demands of treatment. The Stigma factor was only minimally correlated with parental depression, while the Adverse Reaction factor demonstrated relationships consistent with the total score. In future examinations, inclusion of scales that measure stigma and mental health perceptions more broadly would be beneficial in establishing the convergent validity of this factor.

### **Inter-rater Correspondence**

The agreement between children and parents varied considerably across items. Upon examination it appears that items relating to the emotional experience of the child (e.g., 2, 3, 8) were more likely to be consistently rated, while items that reflect the potential impact of stigma associated with treatment appeared the least agreed upon. The variability in agreement may be a

reflection of the extent to which the item assesses worries related to a more objective phenomenon (e.g., emotional reactivity, treatment's impact on other activities) compared to a more personally held perception or belief (e.g., engaging in treatment means there is something really wrong with me/my child). Given that inter-rater agreement is not perfect even for equivalent rating scales (e.g., SCAS-C, SCAS-P; Nauta et al., 2004), it is not particularly surprising that children and parents do not exhibit total agreement on related but personally-focused items.

### **Implications of Findings**

Treatment concerns were endorsed at mild to moderate levels in the majority of children. Given this, treatment concerns appear to be a relevant construct in this population and for those who experience them at greater levels, specific intervention of these concerns may be warranted. For example, psychoeducation focused on addressing concerns over treatment failure, discussion of treatment alternatives, and normalization of symptoms and therapy process, may help alleviate concerns. Implementation of motivational interviewing techniques may also increase buy-in and reduce concerns. Given the relationship between treatment expectancy and treatment worries in children, setting up realistic treatment expectations may also be useful in reducing the level of worry.

While the focus of the present studies analyses has been primarily on mean level ratings and outcomes, individual response profiles may be equally, or more, important to consider in attempting to determine which youth/parents may benefit from specialized intervention. For example, two children could demonstrate the same total scores in the mild range; however, a child whose score is comprised of mild endorsement of all items may be less in need of

intervention than a child who exhibits minimal overall endorsement but high endorsement of select items. As a result, clinical use of the TWQ will likely be most effective if children's and parent's responses are analyzed on both item and subscale/total score levels.

Outside of the few items related to worries about the child not experiencing symptom improvement, the low level of concerns reported by parents suggest that they are generally comfortable with the idea of treatment and are on board for engaging in therapeutic processes. This lack of worry about treatment within parents has several implications for practice: 1) treatment components can be quickly initiated without overwhelming parents; 2) parents require little direct addressing or intervention in regards to treatment engagement; 3) if treatment engagement/compliance is low, other factors may be at play (e.g., poor insight, low treatment expectancy, family conflict/other situational stressors); and 4) parents may be employed to model confidence in treatment and alleviate child worries.

Despite this, the low levels of treatment worries endorsed by parents may be a direct reflection of their decision to seek treatment, as compared to other parents of anxious youth who have not yet done so. As a result, in contrast to parents who have not yet sought treatment for their child, these parents, may: 1) have always held less worries about treatment, increasing their likelihood to attend; 2) have resolved their worries through research or consultation prior to attending treatment; and/or 3) have experienced or continue to experience some worries, but suppress(ed) them in connection with the decision to seek help (cognitive dissonance/action stage). This may also be true for some youth, particularly those who have contributed to the decision to attend treatment. If so, it may be expected that youth who have not been brought to treatment by their families also exhibit greater levels of treatment worries. Regardless, examination of treatment worries in a sample of families of youth with clinical symptoms who

have not yet presented for psychosocial treatment (e.g., primary care clinic) is of great interest. Given that many individuals delay seeking, or do not seek, treatment (Wang et al., 2007; Wang et al., 2005) and untreated pediatric anxiety disorders have a host of negative outcomes (e.g., Alfano et al., 2007; Mychailyszyn et al., 2010; Storch, Larson, et al., 2010), examination of treatment worries as a potential treatment barrier is warranted.

While families actively transferring from current treatment (e.g., stepping down from intensive treatment) were excluded, prior treatment and current pharmaceutical treatment were not exclusionary. As a result, some families may have already been through the therapeutic process which likely contributed to the extent and domains of their reported worries. This could be in a positive (e.g., we know treatment works and are less worried) or negative direction (treatment hasn't worked in the past, so why will it now). The sample also differs from families seeking, or in need of, treatment for other forms of psychopathology as well as families in which the child begins therapy for reasons other than their own decision (e.g., inpatient admission, court-mandated treatment). The TWQ was developed with these alternative uses in mind, and the psychometric outcomes and factor structures observed in the present sample/population support and serve as a guide for its continued use; however, these outcomes should be reexamined when used in these distinct populations.

Due to the infrequency of both parents attending treatment sessions, only one parent report of treatment worries was examined in the present study. While the presentation of only one parent at treatment may have frequently been the result of personal limitations (e.g., time off work), clinical experience has also suggested that non-attending parents may have less therapeutic buy-in. As a result, the non-attending parent may exhibit a unique set, or differing levels, of treatment concerns. In the decision to obtain treatment and in the delivery of treatment,

‘non-supportive’ absent parents can be problematic, as they may create stress/ambivalence for the treatment-seeking parent, continue to engage in anxiogenic strategies (e.g., accommodation), and may contribute to poor engagement/compliance in the child. Attempting to obtain a secondary parent/care-giver report would be beneficial in further examining the prevalence and impact of treatment worries and would provide interesting information regarding the level of agreement between parents on this topic.

While past examinations of treatment concerns have not supported a relationship with treatment outcome, the possibility of treatment concerns affecting outcome through engagement, compliance, and withdrawal remains. In particular, one could theorize that concerns over difficulty or stigma may be particularly damaging to a patient’s engagement as they may feel that treatment is too much of a hassle or may put them at too great of risk. However, it could also be suggested that a small level of treatment concern over failure may be protective, in that children and parents may be motivated to engage in treatment components to ensure their success. A large degree of worry over treatment failure may be problematic in that families may worry that they are powerless to change and may ruminate on the prospect of failure rather than working towards acceptance and change. Regardless, further examination of treatment worries within the context of treatment completion and outcome is warranted.

### **Study Strengths and Limitations**

The present study has a number of strengths. First, the study includes a relatively large and well characterized sample of anxious youth and their primary parent, including dyads from two geographically distinct regions. Second, the study included a wide range of secondary measures that spanned both self, parent, and clinician reports, providing additional information

regarding the clinical profile of treatment worries and differences in agreement. Finally, the recruitment method of consecutive referrals of youth presenting for treatment provides a relatively representative sample of individuals presenting for treatment.

The study's findings should be considered within the context of its limitations. First, while including non-specific treatment items allows the TWQ greater future flexibility, it limits the conclusions of the present study, in that findings regarding treatment worries cannot be considered specific conclusions about any specific treatment components, such as exposures. Second, as mentioned in the discussion, the measures were examined in a treatment-seeking sample of youth with anxiety disorders, along with one of their parents, many of whom had previously completed psychosocial treatment and/or were on psychiatric medications. Therefore, the outcomes described cannot be assumed for other populations.

## **Conclusions**

Prior to the present study, treatment worries in children had only been examined using disorder specific measures and no measure had examined the concept in parents. The results of the present study strongly support the psychometric properties of the TWQ-C as an assessment of treatment worries not tied to any disorder or treatment and suggest that treatment worries are a relatively common phenomenon at mild-moderate levels in anxious/OCD youth. In addition, the results tentatively support the TWQ-P as an assessment of treatment worries amongst parents, although infrequent endorsement of items, likely related to the treatment-seeking nature of the sample, limits the strength of these outcomes. Overall, the results of the present study support the future use of the TWQ-C and TWQ-P to examine treatment worries in a diverse set of

populations including: those who exhibit any range of psychological problems; those who are treatment naïve; those not yet seeking treatment; and those in mandated treatment.

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## Appendices

### Appendix A. USF IRB Approval Letter



RESEARCH INTEGRITY AND COMPLIANCE  
 Institutional Review Boards, FWA No. 00001669  
 12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799  
 (813) 974-5638 • FAX (813) 974-7091

May 20, 2014

Robert Selles, M.A.  
 Psychology  
 Tampa, FL 33612

RE: **Expedited Approval for Initial Review**  
 IRB#: Pro00016867  
 Title: Psychometric Evaluation of the Treatment Worries Questionnaire

**Study Approval Period: 5/19/2014 to 5/19/2015**

Dear Dr. Selles:

On 5/19/2014, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents outlined below.

**Approved Item(s):**

**Protocol Document(s):**

[Protocol, Version #1, 05.10.14.](#)

*Mayo Clinic IRB letter of approval is to be submitted via an amendment.*

**Consent/Assent Document(s)\*:**

[Child Written Assent Form, V#1, 5.10.14.pdf](#)

[Parent and Parental Perm. V#1, 5.10.14.docx.pdf](#)

Child Verbal Assent (verbal scripts are not stamped)

\*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s).

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve

only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristen Salomon', followed by a horizontal line.

Kristen Salomon, Ph.D., Vice Chairperson  
USF Institutional Review Board

## Appendix B. Mayo Approval Letter

### Principal Investigator Notification:

Re: IRB Application #: [14-003737](#)

Title: Psychometric Evaluation of the Beliefs about Accommodation Scale and Treatment Worries Questionnaire

IRBe Protocol Version: 0.01

IRBe Version Date: 7/2/2014 7:42 AM

IRB Approval Date: 7/3/2014

IRB Expiration Date: 7/2/2015

The above referenced application is approved by expedited review procedures (45 CFR 46.110, item 5, 7). This approval is valid for a period of 1 year. The Reviewer conducted a risk-benefit analysis, and determined the study constitutes minimal risk research. The Reviewer determined that this research satisfies the requirements of 45 CFR 46.111. The Reviewer determined there is adequate justification for participation of children in the research as set forth in 45 CFR 46.404 (Subpart D). The questionnaires were reviewed and approved as written.

The written consent and assent forms were reviewed and approved with revisions. Assent is required from subjects ages 7 to 17. Assent shall be documented by a separate written assent form for subjects ages 7 to 12 and by signature on the consent form for subjects ages 13 to 17. The permission of one parent is required.

AS THE PRINCIPAL INVESTIGATOR OF THIS PROJECT, YOU ARE RESPONSIBLE FOR THE FOLLOWING RELATING TO THIS STUDY.

- 1) When applicable, use only IRB approved materials which are located under the documents tab of the IRBe workspace. Materials include consent forms, HIPAA, questionnaires, contact letters, advertisements, etc.
- 2) Submission to the IRB of any modifications to approved research along with any supporting documents for review and approval prior to initiation of the changes.
- 3) Submission to the IRB of all Unanticipated Problems Involving Risks to Subjects or Others (UPIRTSO).
- 4) Compliance with Mayo Clinic Institutional Policies.

Mayo Clinic Institutional Reviewer

## Appendix C. Demographic Form

### PARENTAL INFORMATION

1. Person filling out this form: 1 = Mother    2 = Father    3 = Other: \_\_\_\_\_

2. Parent Age: \_\_\_\_\_

3. Estimate total household income, including all sources

1 = \$0 - \$19,999	3 = \$40,000 - \$59,999	5 = \$80,000 - \$99,999
2 = \$20,000 - \$39,999	4 = \$60,000 - \$79,999	6 = over \$100,000

### CHILD INFORMATION

4. Child's Date of Birth:         Age: \_\_\_\_\_

Month                      Day                      Year

5. Gender: 1 = Female    2 = Male

6. Child Ethnicity:

1 = White (non-Hispanic)	5 = Native American
2 = African-American (non-Hispanic)	6 = Pacific Islander
3 = Hispanic/Latin American	7 = Middle Eastern
4 = Asian	8 = Other (specify): _____

7. Living Situation:

1 = Lives with both biological parents (same residence)	
2 = Lives with both biological parents (different residences – shared custody)	
3 = Lives with single parent: Mother	6 = Lives with Father and Stepmother
4 = Lives with single parent: Father	7 = Lives with Grandparents
5 = Lives with Mother and Stepfather	8 = Other (specify): _____

8. Number of participant's siblings also within home (include adopted and step-siblings)

### SCHOOL INFORMATION

9. This child attends: 1 = PUBLIC school    2 = PRIVATE school    3 = HOME schooled

10. Current Grade (or last **grade** completed if in summertime): \_\_\_\_\_

**PSYCHOTHERAPY HISTORY**

11. Has your child ever been treated for emotional/psychiatric/behavioral problems with therapy?

0 = NO      1 = YES

If YES, please complete the following:

<b>Approximate Start and End Date/Child Age</b>	<b>Problems Addressed</b>	<b>Type of Therapy if Known</b>	<b>Parent Involvement: (0 = not involved – 5 = highly involved)</b>	<b>Reason for stopping/Response (poor, fair good)</b>

**MEDICATION STATUS**

12. Is your child currently treated for emotional or psychiatric problems with medication?

0 = NO      1 = YES

If YES, please complete the table below:

<b>MEDICATION</b>	<b>Dose (per day)</b>	<b>Start Date</b>	<b>Diagnosis</b>	<b>Response (poor, fair, good)</b>	<b>Side Effects</b>

## Appendix D. Treatment Worries Questionnaire – Initial Child Version

### ↓ INSTRUCTIONS ↓

This is a list about different worries that kids may have about starting therapy. Some kids may have a lot of these worries, while others kids may have some or none.

Please circle how worried you are about what each line says.

Not Worried		Moderately Worried			Very Worried	
0	1	2	3	4	5	

I WORRY THAT...		Not Worried			Very Worried		
		0	1	2	3	4	5
1	...therapy is going to make me miss too much school or other important activities outside of school (clubs, sports, lessons, etc).	0	1	2	3	4	5
2	...if I don't get better, I'll feel more frustrated, upset, or embarrassed about my problems than I do now.	0	1	2	3	4	5
3	...therapy will be too hard.	0	1	2	3	4	5
4	...if I go for therapy, people might think my problems are bigger than they really are.	0	1	2	3	4	5
5	...therapy won't help me.	0	1	2	3	4	5
6	...my therapist won't understand me or my problems.	0	1	2	3	4	5
7	...if people find out I'm in therapy, it could be bad for my life (get teased, ruin my future).	0	1	2	3	4	5
8	...therapy will be really upsetting.	0	1	2	3	4	5
9	...therapy will make me have new problems.	0	1	2	3	4	5
10	...starting therapy means that there is really something wrong with me.	0	1	2	3	4	5
11	...therapy will make me change in ways I won't like.	0	1	2	3	4	5
12	...even if therapy helps, my problems will just come back.	0	1	2	3	4	5
13	...if I don't get better during therapy, my problems will never go away.	0	1	2	3	4	5
14	...going for therapy will make me feel embarrassed.	0	1	2	3	4	5
15	...therapy will make my problems worse.	0	1	2	3	4	5
16	...therapy is going to take up time I could spend doing things I like.	0	1	2	3	4	5
17	...I will have to talk about things I don't want to talk about.	0	1	2	3	4	5
18	...therapy will make me change things I don't want to change.	0	1	2	3	4	5
19	...therapy will make me change how I deal with my problems and I'll lose control.	0	1	2	3	4	5
20	...if I don't get better during therapy, my parent(s) will be disappointed in me.	0	1	2	3	4	5

## Appendix E. Treatment Worries Questionnaire – Initial Parent Version

### ↓ INSTRUCTIONS ↓

This questionnaire asks about how you currently feel about your child starting therapy. Starting therapy can be accompanied by a number of different emotions and expectations. While some parents may have no concerns about therapy, others may worry about what therapy will result in or require.

Please circle how worried you are about each of the following.

Not Worried	Moderately Worried				Very Worried
0	1	2	3	4	5

I WORRY THAT...		Not Worried			Very Worried		
		0	1	2	3	4	5
1	...therapy is going to get in the way of my child's education or extracurricular activities.	0	1	2	3	4	5
2	...if therapy doesn't work, my child will feel more frustrated, upset, or embarrassed about their symptoms than they already do.	0	1	2	3	4	5
3	...therapy will be too hard for my child.	0	1	2	3	4	5
4	...if my child goes for therapy, people might think his/her problems are bigger than they really are.	0	1	2	3	4	5
5	...therapy won't help my child.	0	1	2	3	4	5
6	...my child's therapist won't understand my child or my child's symptoms.	0	1	2	3	4	5
7	...if people find out my child is in therapy, it could negatively impact my child's life (e.g., be teased, ruin future opportunities).	0	1	2	3	4	5
8	...therapy will be upsetting for my child.	0	1	2	3	4	5
9	...therapy will somehow result in new symptoms.	0	1	2	3	4	5
10	...starting my child in therapy means admitting there is something wrong with him/her.	0	1	2	3	4	5
11	...therapy will change my child in ways he/she won't like.	0	1	2	3	4	5
12	...even if therapy helps, my child's symptoms will return.	0	1	2	3	4	5
13	...if therapy doesn't work, my child's symptoms will never go away.	0	1	2	3	4	5
14	...going for therapy will make my child feel embarrassed.	0	1	2	3	4	5
15	...therapy will make my child's symptoms worse.	0	1	2	3	4	5
16	...therapy will be a waste of time and money.	0	1	2	3	4	5
17	...my child won't be honest in therapy.	0	1	2	3	4	5
18	...my child's therapist will think I'm a bad parent.	0	1	2	3	4	5
19	...therapy is going to get in the way of my personal responsibilities (e.g., work, family).	0	1	2	3	4	5
20	...therapy may put my child's privacy at risk.	0	1	2	3	4	5
21	...meeting the logistic demands of therapy (e.g., scheduling, cost, transportation) will be too difficult.	0	1	2	3	4	5
22	...if therapy doesn't work, I will feel more frustrated, upset, or embarrassed about my child's symptoms than I already do.	0	1	2	3	4	5
23	...if therapy doesn't work, we will have to try methods of treatment I am not as comfortable with (medication, hospitalization, etc).	0	1	2	3	4	5
24	...my child will not make an effort to improve during therapy.	0	1	2	3	4	5
25	...therapy will make my child change in ways I won't like.	0	1	2	3	4	5
26	...therapy will require me to act in ways that will upset my child or make my child think I am mean.	0	1	2	3	4	5

## Appendix F. Measure of Insight

### Measure of Insight

Rate the patient's insight into the senselessness or excessiveness of his/her symptoms. Please review the child's anxiety symptoms before attempting to answer this question.

Prompts (use any or all):

1. How sure are you of your worries or fears?
2. Do you feel that your concerns and behaviors are reasonable or do they seem excessive?
3. What do you think other kids or people (would) think of your beliefs/worries? [PAUSE] How certain are you that most people think your beliefs make sense?
4. If I were to try to prove your worries or beliefs wrong, how would you feel? Do you think you could be convinced?
5. Why do you think you have these fears/worries/beliefs? [PAUSE] Are they because of a psychological symptom, or are they actually true/necessary?
6. Do you think being scared/afraid/worried makes things better or keeps you safe?

<b>0</b>	Excellent Insight	Fully rational
<b>1</b>	Good Insight	Readily acknowledges absurdity of thoughts or behaviors but does not seem completely convinced that there isn't something besides anxiety to be concerned about (i.e., has lingering doubts)
<b>2</b>	Fair Insight	Reluctantly admits thoughts or behavior may seem unreasonable or excessive, but wavers; may have some unrealistic fears, but no fixed convictions
<b>3</b>	Poor Insight	Maintains that thoughts or behaviors are not excessive or unreasonable, but wavers; may have some unrealistic fears, but acknowledges validity of contrary evidence (i.e., overvalued ideas present)
<b>4</b>	No Insight	Delusional, definitely convinced that concerns and behavior are reasonable, unresponsive to contrary evidence

## **Appendix G. Description of Cognitive Behavioral Therapy**

The treatment you are interested in receiving is named cognitive behavioral therapy or CBT. It is the best treatment we have for treating anxiety disorders. By the end of treatment, most kids' anxiety symptoms are much better. While it does work well for most kids, some kids don't get better. While kids are the focus of the treatment, parents are highly involved and help the child complete treatment homework.

CBT involves the following components:

→ At the start of CBT, your therapist will teach you about what anxiety is, what contributes to anxiety, how CBT helps fight back anxiety, and what will be expected of you during treatment.

→ During CBT you will develop a list of things (situations, people, objects) that are scary to you. You will rank these items in a list from least scary to most scary. Then, starting at the bottom of the list and slowly working your way up, your therapist will help you start to face the things that scare you without doing things that make you feel better (e.g., running away, compulsions, reassurance).

→ At the end of treatment, your therapist will work with you to come up with strategies to help you keep (or continue to make) improvements and to fight back against new symptoms if they arise after treatment is over.

## Appendix H. Treatment Worries Questionnaire – Revised/Final Child Version

### ↓ INSTRUCTIONS ↓

This is a list about different worries that kids may have about starting therapy. Some kids may have a lot of these worries, while others kids may have some or none.

Please circle how worried you are about what each line says.

Not Worried		Moderately Worried			Very Worried	
0	1	2	3	4	5	

I WORRY THAT...		Not Worried			Very Worried		
		0	1	2	3	4	5
1	...therapy is going to make me miss too much school or other important activities outside of school (clubs, sports, lessons, etc).	0	1	2	3	4	5
2	...if I don't get better, I'll feel more frustrated, upset, or embarrassed about my problems than I do now.	0	1	2	3	4	5
3	...therapy will be too hard.	0	1	2	3	4	5
4	...if I go for therapy, people might think my problems are bigger than they really are.	0	1	2	3	4	5
5	...therapy won't help me.	0	1	2	3	4	5
6	...my therapist won't understand me or my problems.	0	1	2	3	4	5
7	...if people find out I'm in therapy, it could be bad for my life (get teased, ruin my future).	0	1	2	3	4	5
8	...therapy will be really upsetting.	0	1	2	3	4	5
9	...starting therapy means that there is really something wrong with me.	0	1	2	3	4	5
10	...even if therapy helps, my problems will just come back.	0	1	2	3	4	5
11	...if I don't get better during therapy, my problems will never go away.	0	1	2	3	4	5
12	...going for therapy will make me feel embarrassed.	0	1	2	3	4	5
13	...therapy is going to take up time I could spend doing things I like.	0	1	2	3	4	5
14	...I will have to talk about things I don't want to talk about.	0	1	2	3	4	5
15	...therapy will make me change things I don't want to change.	0	1	2	3	4	5
16	...therapy will make me change how I deal with my problems and I'll lose control.	0	1	2	3	4	5
17	...if I don't get better during therapy, my parent(s) will be disappointed in me.	0	1	2	3	4	5

## Appendix I. Treatment Worries Questionnaire – Revised/Final Parent Version

### ↓ INSTRUCTIONS ↓

This questionnaire asks about how you currently feel about your child starting therapy. Starting therapy can be accompanied by a number of different emotions and expectations. While some parents may have no concerns about therapy, others may worry about what therapy will result in or require.

Please circle how worried you are about each of the following.

Not Worried	Moderately Worried				Very Worried
0	1	2	3	4	5

I WORRY THAT...		Not Worried			Very Worried		
		0	1	2	3	4	5
1	... therapy is going to get in the way of my child's education or extracurricular activities.	0	1	2	3	4	5
2	... if therapy doesn't work, my child will feel more frustrated, upset, or embarrassed about their symptoms than they already do.	0	1	2	3	4	5
3	... therapy will be too hard for my child.	0	1	2	3	4	5
4	... if my child goes for therapy, people might think his/her problems are bigger than they really are.	0	1	2	3	4	5
5	... therapy won't help my child.	0	1	2	3	4	5
6	... my child's therapist won't understand my child or my child's symptoms.	0	1	2	3	4	5
7	... if people find out my child is in therapy, it could negatively impact my child's life (e.g., be teased, ruin future opportunities).	0	1	2	3	4	5
8	... therapy will be upsetting for my child.	0	1	2	3	4	5
9	... starting my child in therapy means admitting there is something wrong with him/her.	0	1	2	3	4	5
10	... even if therapy helps, my child's symptoms will return.	0	1	2	3	4	5
11	... if therapy doesn't work, my child's symptoms will never go away.	0	1	2	3	4	5
12	... going for therapy will make my child feel embarrassed.	0	1	2	3	4	5
13	... therapy will be a waste of time and money.	0	1	2	3	4	5
14	... my child won't be honest in therapy.	0	1	2	3	4	5
15	... my child's therapist will think I'm a bad parent.	0	1	2	3	4	5
16	... therapy is going to get in the way of my personal responsibilities (e.g., work, family).	0	1	2	3	4	5
17	... therapy may put my child's privacy at risk.	0	1	2	3	4	5
18	... meeting the logistic demands of therapy (e.g., scheduling, cost, transportation) will be too difficult.	0	1	2	3	4	5
19	... if therapy doesn't work, I will feel more frustrated, upset, or embarrassed about my child's symptoms than I already do.	0	1	2	3	4	5
20	... if therapy doesn't work, we will have to try methods of treatment I am not as comfortable with (medication, hospitalization, etc).	0	1	2	3	4	5
21	... my child will not make an effort to improve during therapy.	0	1	2	3	4	5
22	... therapy will require me to act in ways that will upset my child or make my child think I am mean.	0	1	2	3	4	5