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**The Mechanisms of Therapeutic Change: A Qualitative Study of a
Cognitive-Behavioral Intervention with a Parent-Training Component
for Anxious Youth**

**APPROVED BY
SUPERVISING COMMITTEE:**

Supervisor:

Kevin D. Stark

Timothy Z. Keith

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Hannah Linley Jones, B.A.

Report

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Abstract

The Mechanisms of Therapeutic Change: A Qualitative Study of a Cognitive-Behavioral Intervention with a Parent-Training Component for Anxious Youth

Hannah Linley Jones, M.A.

The University of Texas at Austin, 2014

Supervisor: Kevin D. Stark

Anxiety is one of the most common psychological disorders in school-age children, which has detrimental impact on behavioral, social, and emotional functioning. Cognitive-behavioral therapy has demonstrated effectiveness in treating youth with anxiety disorders; however, little is known about how or why this intervention is beneficial. This study explores the mechanisms of therapeutic change in anxious children and adolescents by evaluating clients' perspectives through semi-structured interviews. A qualitative research method will be used to assess the thoughts, feelings, and experiences of youth and parents who participate in a cognitive-behavioral intervention program with a parent-training component. Specifically, grounded theory will be used to collect and analyze data and generate a theory, which explains the mechanisms of positive therapeutic change.

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Chapter 1: *Introduction*

Fear, worry, and anxiety are a predominant concern in school-age children (Muris, Merckelbach, Gadet, & Moulart, 2000), and anxiety disorders are the most common psychological disorders in childhood and adolescence (Costello, Mustillo, & Erkanli, 2003; Costello, Egger, & Angold, 2005; Merikangas et al., 2010). This high prevalence of anxiety in school-age children is startling since the presence of an anxiety disorder can impair a child's social, emotional, behavioral, and cognitive functioning (Ezpeleta, Keeler, Erkanli, Costello, & Angold, 2001); tends to be chronic (Bittner et al., 2007); creates a heavy financial burden on health care services (McGregor, 2006; Meltzer, Gatward, Goodman, & Ford, 2000); and, can lead to increased risk for a psychiatric disorder later in life (Kessler, Berglund, Demler, Jin, & Walters, 2005; Pine, Cohen, Gurley, Brook, & Ma, 1998).

There is a difference between fear, a response to an identifiable danger, and anxiety, an apprehension about future harm (Rachman, 2004). Fear is associated with an alarm reaction known as the fight-or-flight response. Walter Cannon (1929) described the term "fight-or-flight" as the body's physiological reaction to threatening stimuli in the environment. In contrast, anxiety is involved in anticipating and avoiding possible dangers and is based on the perception of potential or distant threats (Grillon, 2008). Anxiety is a universal emotion that can be an adaptive reaction to stress. During everyday stress, anxiety occurs but is typically brief and mild; however, anxiety symptoms can become extreme, maladaptive, and debilitating, leading to psychological disorders.

All anxiety disorders share core characteristics, typically referred to as "anxious emotions" (Weems & Silverman, 2008). One prominent characteristic of anxiety

disorders is an extreme and debilitating worry that interferes with general functioning and results in a variety of negative emotions such as distress. Since anxiety disorders share common characteristics, secondary characteristics, essentially the definition of the disorders, are what truly distinguish each disorder from the other (Weems & Stickle, 2005). Separation Anxiety Disorder (SAD) is characterized as a fear of being away from a primary caregiver. Youth with SAD can experience extreme distress when going to school and leaving the safety of their home and caregivers. Furthermore, Social Phobia (SoP) involves a fear of embarrassment or humiliation in social situations or performances. Youth with SoP might be extremely worried about fitting in with peers or embarrassing themselves during a class presentation. In addition, Generalized Anxiety Disorder (GAD) is characterized by a constant worry about everything. Youth with GAD find their worry difficult to control and this can affect their ability to concentrate or interact with others.

Given anxiety's detrimental impact on many areas of youth functioning, it is important to identify the most efficacious interventions for children and adolescents with anxiety. Both psychopharmacological treatments and psychosocial interventions have been employed to treat anxious youth. Since serotonin has been associated with anxiety, Selective Serotonin Reuptake Inhibitors (SSRIs) have become the predominant medication used for pediatric anxiety disorders by inhibiting the reuptake of serotonin into nerve cells, allowing an increased level of serotonin to be present in the brain (Stock, Werry, & McClellan, 2001). However, it is recommended that medication should be used in conjunction with psychosocial interventions (American Academy of Child and Adolescent Psychiatry, 1997). While some studies have revealed that the combination of psychopharmacological and psychological intervention is most effective for the treatment of pediatric anxiety (Compton et al., 2010), other studies have demonstrated that

psychosocial interventions can be just as effective as medication (Liashko & Manassis, 2003; Eichstedt, Tobon, Phoenix, & Wolfe, 2010).

Compared to other psychological interventions, Cognitive Behavioral Therapy (CBT) has the strongest support for its efficacy with randomized control trials (RCTs) demonstrating that between 39 to 80% of youth with anxiety exhibit a significant reduction in anxiety symptoms when receiving CBT (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004). Although CBT is efficacious for anxious youth, studies have reported some variability in success rates; therefore, the mechanisms of therapeutic change need to be identified to optimize treatment. Some researchers posit that parental and family factors are related to successful treatment for anxious youth (Barmish & Kendall, 2005). RCTs that have compared childhood anxiety with and without parental involvement have not yielded clear results. In addition to parent involvement, research has suggested that there are both specific factors associated with particular treatments (e.g., cognitive restructuring and exposure in CBT) as well as common factors evident across all treatments (e.g., therapeutic alliance and client motivation) that might contribute to therapeutic change. Nevertheless, in order to truly understand how treatment works, the youth and parents that participate in the intervention need to be given the opportunity to share their perspectives.

This research project aims to gain an understanding of how and why mechanisms of change influence treatment outcome in anxious youth by evaluating the perspectives of both the child and their parents through semi-structured interviews. A qualitative research method will be used to assess the thoughts, feelings, and experiences of youth and parents who participate in a cognitive-behavioral intervention program with a parent-training component. Specifically, grounded theory will be used to collect and analyze data and generate a theory, which explains the mechanisms of change.

Chapter 2: *Integrative Analysis*

This integrative analysis will describe characteristics about childhood anxiety disorders and delineate the diagnostic criteria for Separation Anxiety Disorder, Generalized Anxiety Disorder, and Social Phobia. Then, a review of the treatment for pediatric anxiety will be provided, with a particular focus on cognitive behavioral intervention. Subsequently, the research related to the inclusion of parents in their child's CBT will be discussed. Finally, the importance of understanding the mechanisms of change and gaining insights into the participants' perspectives will be explained.

CHARACTERISTICS AND DIAGNOSTIC CRITERIA FOR ANXIETY DISORDERS

Risk Factors for the Development of Anxiety

Research has identified a variety of biological and environmental risk factors implicated in the development of anxiety disorders in childhood and adolescence. Specifically, biological processes such as genetics or temperament; behavioral learning processes, such as classical and operant conditioning; cognitive processes such as negative automatic thoughts or self-schemas; and, interpersonal processes such as attachment and sociability have all been researched as possible causes for the development of anxiety disorders (Sweeny & Pine, 2004; Weems & Silverman, 2008). Also, in the field of neurochemistry, three neurotransmitters have been associated with anxiety: neuropeptides, noradrenaline, and especially serotonin, which is often targeted in psychopharmacological treatments (Sweeny & Pine, 2004). In thinking about brain

structures related to anxiety disorders, the limbic system, in particular the amygdala, is thought to play a role in anxiety. Furthermore, gene-environment interactions also are associated with pediatric anxiety disorders. For example, children who have a genetic or temperamental vulnerability to anxiety and who are raised in an environment with maladaptive parenting behaviors, such as over-control, rejection, or modeling of anxious behaviors, and adverse family interactions, such as low family cohesion and high conflict, are at higher risk for developing an anxiety disorder (Drake & Ginsburg, 2012).

Prevalence

Anxiety disorders are the most common psychological disorders in the world, and onset typically occurs in childhood, adolescence, or young adulthood (McGregor, 2006). In fact, studies report a median age-of-onset in childhood to be from six years old (Merikangas et al., 2010) to eleven years old (Kessler et al., 2005). An epidemiological review of the prevalence of anxiety in school-aged children revealed that the three-month prevalence estimates were between 2.2 and 8.6%, six-month estimates ranged from 5.5 to 17.7%, twelve-month estimates ranged from 8.6 to 20.9%, and lifetime prevalence estimates ranged from 8.3 to 27% (Costello, Egger, & Angold, 2005). In a study examining common fears in children ages eight to thirteen years old, 23% of children had fears intense enough to meet criteria for anxiety disorders (Muris, Merckelback, Mayer, & Prins, 2000). Looking specifically at adolescents ages thirteen to eighteen, the lifetime prevalence of anxiety disorders is 31.9% (Merikangas et al., 2010). In summary, a high percentage of school-age children suffer from diagnosable anxiety disorders.

Gender and Cultural Differences

In looking at differences across gender, females are more likely to develop anxiety disorders than males (McGregor, 2006). Epidemiological research has identified a 2:1 ratio for girls to boys in the development of anxiety disorders (Costello et al., 2004). This is consistent with child self-reports in which girls report higher and more intense fears, specifically fears of animals, danger, death, and safety, when compared to boys (Gullone & King, 1993). Similarly, another study examining the role that emotion dysregulation plays in the expression of anxiety in children ages nine to sixteen found that girls experienced more anxiety and had greater difficulty regulating emotions than boys (Bender, Reinholdt-Dunne, Esbjorn, & Pons, 2012).

Moreover, while anxiety disorders occur across all racial groups (McGregor, 2006), there have been mixed results about cultural differences in the prevalence, severity, and expression of anxiety. For example, Egger and Angold (2004) found that in preschool aged children, African Americans had a low prevalence rate for social phobia of 0.6% while non-African American children reported a higher rate of 14%. Similarly, another study found that white participants were more likely to be determined high in Social Phobia, but low in Separation Anxiety Disorder; however, the reverse was found for African Americans (Compton, Nelson, & March, 2000). In contrast, Last and Perrin (1993) found that in general there were higher rates of anxiety disorders in African American youth than whites. Conversely, another study found that there were no differences among the prevalence of any anxiety disorders when comparing African American and white children (Beidel, Turner, & Trager, 1994).

Furthermore, research has shown that Latino children report more anxious and

somatic complaints compared with white non-Latino children (Varela et al., 2004). Specifically, Latino children are more likely to express their worry somatically and report distress about these physical symptoms than non-Latino children (Lopez & Guarnaccia, 2000). Similarly, white and non-Latino parents reported that their child experiences less somatic symptoms when compared to Latino parents (Pina & Silverman, 2004).

Developmental Progression

Some researchers have identified a developmental progression of anxiety over childhood and adolescence (Westenberg, Siebelink, & Treffers, 2001; Warren & Sroufe, 2004). For example, separation anxiety symptoms and animal fears are the most common fears in children ages six to nine. As children grow, generalized anxiety symptoms and fears concerning danger and death begin to manifest in children ages ten to thirteen, and social anxiety symptoms and concerns about social performances occur in adolescence at ages fourteen to seventeen (Westenberg, Siebelink, & Treffers, 2001; Warren & Sroufe, 2004). In fact, research has shown that there are changes in the content of fears throughout childhood and that these changes mirror the growing reality and experiences of the child (Campbell, 1986). Children's fears tend to develop from broad, imaginary, and uncontrollable fears, like monsters or the dark, to more specific and realistic content such as social performance and academic achievement (Bauer, 1976).

Diagnostic Criteria

Three anxiety disorders that have high prevalence in children and adolescents are Generalized Anxiety Disorder (GAD), Separation Anxiety Disorder (SAD), and Social Phobia (SoP; Albano, Chorpita, & Barlow, 2003). According to the Diagnostic and

Statistical Manual of Mental Disorders, 4th edition with text revision (DSM-IV-TR) published by the American Psychiatric Association (APA; 2000), GAD is characterized by an excessive worry occurring more days than not for at least six months. To meet criteria for GAD, the worry must be difficult to control and must be associated with three of the following symptoms: restlessness, easily fatigued, difficulty concentrating, irritability, muscle tension, or sleep disturbance.

In contrast, SoP is characterized by a marked and persistent fear of feeling humiliated or embarrassed in social or performance situations for a period of at least six months for children and adolescents (4th ed., text rev.; *DSM-IV-TR*; APA, 2000). Exposure to the feared social situation may result in anxiety symptoms associated with a panic attack; however for children, this can be expressed by crying, tantrums, or freezing in these social situations (APA, 2000). The feared social situation is avoided or endured with intense anxiety. Furthermore, for children, there must be evidence of appropriate social relationships with familiar people, and the anxiety cannot be simply limited to interactions with adults, the anxiety must impact peers as well.

In addition, SAD is characterized by a developmentally inappropriate and excessive anxiety related to being separated from home or attachment figures for a period of at least four weeks (APA, 2000). To meet criteria for SAD, the worry is displayed through at least three of the following: recurrent excessive distress when separation occurs from home or caregivers or separation is anticipated, persistent and excessive worry concerning losing or harm being done to attachment figures, persistent and excessive worry that the individual will be separated from their attachment figure such as getting

lost or being kidnapped, reluctance or refusal to go outside of the home due to fear of being separated, reluctance or refusal to be alone, reluctance or refusal to go to sleep without being near a primary caregiver or to sleep away from home, repetitive nightmares with a separation theme, or the presence of physical symptoms such as headaches or nausea upon or in anticipation of separation (APA, 2000). For all three of these anxiety disorders, as with most disorders in the DSM-IV-TR, the symptoms must cause significant interference with overall functioning and cannot be explained by a medical condition or other psychological disorder (APA, 2000).

In the DSM-V, there have been updates to the criteria for these anxiety disorders. Social Phobia had been re-categorized to Social Anxiety Disorder (APA, 2013). Furthermore, the more generalized social situations criterion has now been removed because it was difficult to operationalize and has been replaced with a performance-only criterion. In addition, Separation Anxiety Disorder was originally classified in the section entitled “Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence,” but has now been re-classified as an anxiety disorder (APA, 2013). While many of the criteria for diagnosis remain the same, there have been some additions to recognize the existence and expression of Separation Anxiety in adulthood.

Comorbidity

Comorbidity among anxiety disorders occurs frequently. Last, Strauss, and Francis (1987) noted that one third of youth in an outpatient setting who were diagnosed with SAD had one or more additional anxiety disorders. Similarly, another study found that 75% of 157 clinically referred children and adolescents diagnosed with GAD also met

criteria for at least one additional anxiety disorder, with the most frequent being Specific Phobia (46.4%), Separation Anxiety Disorder (42.0%), Obsessive Compulsive Disorder (31.9%), and Social Phobia (26.1%; Masi et al., 2004). Furthermore, Kendall and colleagues (2010) investigated comorbidity in children and adolescents between the ages of seven and seventeen who had a diagnosis of GAD, SoP, or SAD, and found that 55% of the sample had at least one comorbid diagnosis, and 36% of the sample had comorbidity within the three anxiety disorders of focus, GAD, SoP, or SAD. In addition, research has found that children and females are at greater risk for developing a comorbid anxiety disorder (Leyfer, Gallo, Cooper-Vince, & Pincus, 2013).

Not only are anxiety disorders found to be comorbid with other anxiety disorders, but they are also frequently comorbid with other internalizing and externalizing disorders. Costello and colleagues (2004) estimate that the rates of comorbidity between anxiety and depression range from 1 to 20%. In a sample of youth with Social Phobia, Major Depressive Disorder and Dysthymia were found to be comorbid at a rate of 6.4% (Viana, Rabian, & Beidel, 2008). In another study of a large community sample, the comorbidity between anxiety and depressive disorders was found to be 16.9% (Anderson, Williams, McGee, & Silva, 1987). Similarly, research has shown that youth with a primary diagnosis of SoP or GAD are more likely than youth with a primary diagnosis of SAD to have a comorbid depressive disorder (Verduin & Kendall, 2003). Ford, Goodman, and Meltzer (2003) found that 27% of children with an anxiety disorder had a comorbid depressive or disruptive disorder. Furthermore, Kendall and colleagues (2010) found that in a large study of seven to seventeen year olds, 10.04% of the sample met criteria for

both ADHD and anxiety, whereas 9.43% met criteria for both Oppositional Defiant Disorder and anxiety. Masi and colleagues (2004) also found in their large sample of children and adolescents clinically referred for treatment that were diagnosed with GAD that 56% of the sample had a comorbid depressive disorder while 21% of the sample had a comorbid disruptive disorder. In general, anxiety disorders tend to be highly comorbid with other anxiety disorders, and with internalizing and externalizing disorders as well.

Outcomes

Anxiety disorders in childhood can have a variety of detrimental effects. Specifically, research has found that childhood anxiety disorders are linked to the development of adult anxiety, depressive, and substance abuse disorders (Pine et al., 1998). A longitudinal study found that more than one-third of individuals who suffer from an anxiety disorder at age 32, had an anxiety disorder before the age of 15 (Gregory et al., 2007). Furthermore, anxiety disorders cost the health care system billions of dollars annually, primarily because of undiagnosed, misdiagnosed or inadequate treatment of the disorder (McGregor, 2006). The cost to society for families who have a child with an anxiety disorder is 21 times higher than families from the general population due to a variety of effects on costs including cost of treatment, cost of medication, productivity losses due to absences from work by the parents, school absences, loss of household activities, and loss of leisure time (Bodden, Dirksen, & Bogels, 2008). Academics are also adversely affected by childhood anxiety, with parents of youth with GAD, SAD, and SoP reporting greater impairments in their child's school functioning such as performing poorly academically, repeating a grade, being in a special classroom, or exhibiting

behavior problems when compared with non-anxious controls (Michailyszyn, Mendez, & Kendall, 2010).

Furthermore, families are also impacted by childhood anxiety disorders. For example, family accommodation, when family members alter their behaviors to diminish or avoid distress related to their child's anxiety, is highly prevalent in families who have a child with GAD, SAD, and SoP (Lebowitz et al., 2013). Not only do parents report that they modify family routines to accommodate their child's anxiety, but they also report distress resulting from this accommodation and adverse outcomes if accommodation is not performed, such as exacerbation of the child's distress or the child becoming angry.

TREATMENT OF ANXIETY

Children and adolescents with anxiety disorders are currently being treated in a variety of ways, including with both psychopharmacological approaches and psychosocial interventions. The following sections will review both types of treatment, particularly focusing on cognitive behavioral interventions.

Psychopharmacological Treatment

The Food and Drug Administration has approved a variety of medications to treat adult anxiety disorders; however, less is known about psychopharmacological treatment for childhood anxiety. Nevertheless, Reinblatt and Riddle (2007) conducted a meta-analysis to review studies that examine the psychopharmacological treatment of pediatric anxiety, and found several studies that demonstrated evidence to support the efficacy of medication for SAD, GAD, and SoP, as evidenced by either a moderate-to-large effect

size or a demonstration of efficacy in placebo-control studies. Tricyclic Antidepressants (TCAs) were one of the first treatments for childhood anxiety due to their success in treating adults (Stock, Werry, & McClellan, 2001; Reinblatt & Riddle, 2007). However, although one study yielded positive results in the treatment of School Phobia with imipramine (Gittleman-Klein & Klein, 1971), most randomized placebo-controlled trials failed to demonstrate the efficacy of TCAs in the treatment of pediatric anxiety (Berney et al., 1981; Bernstein, Garfinkel, & Borchardt, 1990; Bernstein et al., 2000; Klein, Koplewicz, & Kanner, 1992). Furthermore, there have been concerns about the safety of TCAs, specifically the possible cardiovascular side effects requiring EKG monitoring and toxicity overdose (Reinblatt & Riddle, 2007). Similarly, benzodiazepines were used to treat pediatric anxiety early on, but studies yielded mixed results and there was concern about disinhibition and tolerance.

Instead, Selective Serotonin Reuptake Inhibitors have become the first-line treatment for pediatric anxiety disorders. Randomized control trials comparing SSRIs, including fluvoxamine, fluoxetine, paroxetine, and setraline, to placebo for the treatment of childhood anxiety resulted in response rates ranging from 61 to 90% (Birmaher & Ollendick, 2004; Kendall 1994; Kendall et al. 1997; Rynn, Siqueland, & Rickels, 2001; Wagner et al. 2004). In addition, the researchers also found that SSRIs are often well tolerated with few side effects (Reinblatt & Riddle, 2007). Reinblatt and Riddle (2007) concluded that SSRIs, specifically fluoxetine and fluvoxamine, are effective treatments for childhood GAD, SoP, and SAD.

It should be noted that the American Academy of Child and Adolescent Psychiatry

(AACAP) recommends that medications should not be employed as the sole treatment for pediatric anxiety, but rather a combination of both medication and psychosocial interventions should be used (1997). Specifically, the AACAP advocates for the use of CBT with SSRIs to treat children with moderate to severe anxiety (1997), and this is frequently how pediatric anxiety is treated in clinical practice (Reinblatt & Riddle, 2007).

Research has supported the use of a combination of medication and CBT. For example, the National Institute for Mental Health (NIMH) funded the Child/Adolescent Anxiety Multimodal Study (CAMS; Compton et al., 2010) to examine anxiety intervention treatment effectiveness for youth ages seven to seventeen. CAMS compared CBT intervention, pharmacological intervention, CBT and pharmacological intervention combined, and placebo. The study found that the combination of CBT and medication was the most effective intervention for reducing anxiety and also that the therapeutic and pharmacological interventions were more effective than the placebo condition alone.

Although combined treatment is often recommended, few studies have compared the effectiveness of combined treatment to CBT alone. Moreover, many studies examining the efficacy of CBT interventions have excluded children on medications since this is often considered a confounding variable. Liashko and Manassis (2003) conducted a study examining differences in treatment comparing children who participated in a CBT intervention on medication compared with children in a CBT intervention who were not medicated. In this study, 102 children, 18 medicated and 84 non-medicated, participated in a twelve-week CBT program with their parents participating in a parent-training component. The study found that both treatment groups

exhibited similar reductions in their anxiety symptoms, suggesting that CBT may be equally effective with children on or off medication (Liashko & Manassis, 2003).

Similarly, another study compared children taking SSRIs to non-medicated children between the ages of eight and thirteen with a diagnosis of anxiety undergoing a twelve-week CBT group (Eichstedt, Tobon, Phoenix, & Wolfe, 2010). They found that there were significant decreases in anxiety symptoms at post-treatment and at a four-month follow-up for both groups. Therefore, although medication can be effective in treating pediatric anxiety, psychosocial interventions might be similarly effective.

Psychosocial Interventions

Psychologists are often hesitant to give medication to children and adolescents; therefore, many researchers have focused on developing and exploring the most efficacious psychosocial approaches to treat anxiety disorders in youth. One of the first documented childhood anxiety cases to receive treatment was the case of “Little Hans”, a five year old with a specific phobia of horses (Freud, 1963). Freud helped Little Hans’ father treat his son by providing a series of specific questioning to understand what Little Hans was experiencing to help ease his anxiety. While conclusions were drawn from this case that helped inform psychodynamic theory, another main contribution of this case was the realization that childhood anxiety can lead to a great deal of family distress (Labellarte, Ginsburg, Walkup, & Riddle, 1999). Since then, numerous approaches have been developed to treat anxiety, such as psychodynamic therapy, play therapy, and acceptance commitment therapy; however, CBT has received the most consistent support for its efficacy (Labellarte, Ginsburg, Walkup, & Riddle, 1999).

It should be noted that when there are no studies conducted with youth, research on adult interventions will be reviewed. However, research with adults cannot simply be generalized to children and adolescents. There are clear developmental stages in cognitive capabilities, social competencies, and behavioral skills of youth that are distinct from adults, and this makes adult interventions ineffective and inappropriate for children (Field & Behrman, 2004; Barrett, 2000).

Psychodynamic Therapy

There have been a few randomized control trials that have examined the effectiveness of psychodynamic therapy in the treatment of anxiety in adults. In one RCT comparing CBT to short-term psychodynamic psychotherapy (STPP) for the treatment of GAD in adults, both CBT and STPP were found to yield large improvements at 12 months post-treatment; however, in measures of trait anxiety and worry, CBT was shown to be superior (Salzer, Winkelbach, Leweke, Leibing, & Leichsenring, 2011).

Leichsenring and colleagues (2013) examined the efficacy of psychodynamic therapy compared to CBT for the treatment of 495 adults with a diagnosis of SoP across a multicenter RCT. They found that CBT was statistically superior to psychodynamic therapy in remission rate, which was 36% for CBT and 26% for psychodynamic therapy, but not in response rate, which was 60% for CBT and 52% for psychodynamic therapy. Nevertheless, the efficacy of psychodynamic therapies in the treatment of anxiety needs to continue to be explored and validated, and interventions designed specifically for youth need to be developed.

Play Therapy

Play therapy is a popular treatment for young children and has been suggested as a potential treatment for anxiety through a process of desensitization in which the child is exposed to problems associated with anxiety through play (Marks, 1978). In one study, children between the ages of two and six were assigned to three play conditions, free play, directed play, and modeling, or one control condition and researchers found that all three play conditions were associated with lower post-treatment anxiety scores based on teacher report (Milos & Reiss, 1982). However, the participants in this study were rated as having difficulty separating from their parents by a teacher and were not formally diagnosed with SAD. Post (1999) conducted a study with at-risk fourth through sixth graders who had low self-esteem and high anxiety, in which participants were either assigned to a play therapy condition or a no-therapy condition. The results indicated that those students who participated in play therapy did not change over the course of treatment, while the control condition did worsen over time (Post, 1999). While play therapy has been shown to be beneficial in treating other disorders in young children, more research needs to be conducted to evaluate the efficacy of play therapy for pediatric anxiety, particularly for clinical samples.

Acceptance and Commitment Therapy (ACT)

ACT is a form of behavior therapy that focuses on exposures and reduction in experiential avoidance (Dalrymple & Herbert, 2007). Since people with anxiety disorders engage in avoidance, some researchers believe that ACT can be beneficial to reduce this

behavior. One study examined ACT as a treatment for college students' fear of public speaking (Block & Wulfert, 2002). Thirty-nine college students were assigned to six weeks of ACT, group CBT, or a wait-list control. Overall, social anxiety decreased and willingness to speak in public increased for both treatment groups compared with controls. However, only the participants in the ACT condition showed a decrease in behavioral avoidance (Block & Wulfert, 2002). Although this study supports the idea that ACT specifically targets behavioral avoidance, this research was conducted with a nonclinical sample in young adults. In another study, adults with SoP completed twelve-weeks of university-based ACT therapy (Dalrymple & Herbert, 2007). The researchers found that participants were satisfied with their treatment, their anxiety symptoms reduced, and avoidant behaviors decreased. However, there were no control or comparison groups in this study. In a study comparing cognitive therapy to ACT in college students, researchers found that there were equivalent improvements in anxiety, overall functioning, and life satisfaction (Forman, Herbert, Moitra, Yeoman, & Geller, 2007). In contrast, another study compared CBT to ACT in adults and found that participants with moderate anxiety and no comorbid mood disorders did better in the CBT condition, whereas participants with a comorbid mood disorder improved more with ACT (Wolitzky-Taylor, Arch, Rosenfield, & Craske, 2012). In general, although ACT does seem to be potentially beneficial, particularly in reduction of avoidance, studies have not examined its efficacy in RCTs with youth.

Cognitive Behavioral Therapy

In considering the cognitive behavioral model behind the intervention, CBT emerged from traditional behavior therapies. Based on the behavioral approach, anxiety is conceptualized as a classically conditioned response that can be unlearned or counterconditioned (Compton, March, Albano, Weersing, & Curry, 2004). In the 1960s, although behavioral therapies were popular, some psychologists realized that the behavioral approach, which focuses solely on observable behaviors, could not account for additional major components of the problem, like obsessional thinking or negative automatic thoughts (Dobson & Dozois, 2001). Therefore, CBT developed in response to the growing dissatisfaction with the strict stimulus-response of the behavioral model.

In addition, CBT incorporates aspects of traditional cognitive therapies such as the idea that cognitive distortions are central to the development of disorders, and in order to conduct effective treatment, change in cognition has to occur (Hudson, 2005). For anxious children and adolescents, they view the world as a threatening place, and have developed a negative and maladaptive schema of “The world is an unsafe place.” In order to change this schema, treatment focuses on challenging these negative thought processes in order to develop more adaptive, coping thoughts (Compton et al., 2004). Ultimately, CBT is a combination of behavioral strategies and cognitive processes, focusing on behavioral and cognitive change. An important fundamental element of CBT is the gradual exposures, which help bring about behavioral and cognitive change because there is a reduction in avoidant behavior and the child alters his or her cognitions about the perceived threat, control over the threat, and ability to cope. Many have asserted that

these changes in cognitions and behaviors are the fundamental mechanisms of change that occur in CBT treatment (Dobson & Dozois, 2001).

The main goals in cognitive-behavioral interventions for anxiety are to change maladaptive thinking, increase pro-social skills, and change avoidant behavioral patterns. To accomplish these goals, CBT for anxiety in youth typically includes several components: psycho-education about anxiety and symptoms, understanding the CBT model, or the connection between thoughts, feelings, and behaviors, coping skills, relaxation training, problem-solving skills, cognitive restructuring, and graduated exposure to anxiety-provoking situations (Albano, Chorpita, & Barlow, 2003; Chu & Harrison, 2007). Cognitive restructuring involves the use of a variety of strategies such as identifying anxious thoughts, using Socratic questioning to challenge these thoughts, and finally developing coping thoughts to replace anxious thoughts. In addition, the main behavioral goal in CBT is to reduce avoidance. Exposure therapy attempts to reduce avoidance by having the youth systematically progress through a fear hierarchy of anxiety-provoking situations (Chu & Harrison, 2007). The intervention is typically divided into two segments, a skills-building segment in which youth learn about anxiety and how to treat it, coping skills, problem-solving skills, relaxation, and cognitive restructuring, and then the exposure segment in which clients practice using these skills to help manage their anxiety in fearful situations.

Research has consistently supported the use of individual CBT (Kendall, 1994; Kendall, Flannery-Schroeder, Panichelli-Mindel, & Southam-Gerow, 1997; Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008; Pina, Silverman, Fuentes, Kurtines,

& Weems, 2003); and group CBT (Flannery-Schroeder & Kendall, 2000; Manassis et al., 2002; Shortt, Barrett, & Fox, 2001; Melfsen, et al., 2011) for the treatment of pediatric anxiety disorders. A meta-analysis of twenty-two RCTs indicated that between 39 to 80% of youth with anxiety show a significant reduction in anxiety symptoms when receiving CBT (Cartwright-Hatton et al., 2004). Furthermore, CBT has demonstrated efficacy for a range of ages and disorders, such as anxious children ages 7–14 (Barrett, 1998; Silverman et al., 1999), adolescents ages 14 to 17 (Albano et al., 1995; Hayward et al., 2000), school-refusal behavior (King et al., 1998); and SoP in children (Beidel, Turner, & Morris, 2000).

In 1990, Philip Kendall developed the Coping Cat CBT program for childhood anxiety, which involves approximately 14 to 18 sixty-minute sessions over a 12 to 16 week period. In the first six to eight sessions, the development of adaptive coping skills is emphasized and the second eight sessions allow the child to practice these newly learned skills in anxiety-provoking situations. The program focuses on five main principles: recognizing anxious feelings and somatic reactions to anxiety; identifying thoughts in fearful situations; developing a plan to cope in the situation, including modifying anxious thoughts and determining appropriate coping actions that would be effective; behavioral exposures to anxiety-provoking situations; and, evaluating performance during the exposure and providing self-reinforcement (Kendall, 1990). The Coping Cat is employed with children ages eight to thirteen years old, and the C.A.T. Project, an adapted version of the Coping Cat workbook with developmental appropriate pictures and examples for older adolescents, is used with youth ages fourteen to seventeen.

In the first RCT investigating the efficacy of this program, Kendall (1994) found that 66% of the participants did not meet criteria for an anxiety disorder post-treatment; ultimately, concluding that children experienced less general anxiety and improved coping behavior as a result of the program. This was also confirmed at a follow-up study three years later (Kendall, & Southam-Gerow, 1996). In a second RCT, 56% of youth in the CBT condition did not meet criteria for an anxiety disorder at post-treatment, and there were significant reductions in clinical severity for youth who continued to report anxiety symptoms. Additionally, greater improvements were noted over time, specifically at the one-year follow-up (Kendall et al., 1997). Furthermore, Flannery-Schroeder and Kendall (2000) assessed the effects of Coping Cat in a sample of 37 children, including 21 children with GAD, 11 with SAD, and 5 with SoP. These children were assigned to individual CBT, group CBT, or a waitlist control. They found that scores on measures of state and trait anxiety were significantly lower in the group CBT condition compared with the individual CBT and waitlist control.

The Coping Cat program has also been adapted for use in other cultures such as Australia, where the program is known as Coping Koala (Barrett, Dadds, & Rapee, 1996) and Canada, where the program is called Coping Bear (Mendlowitz et al., 1999). Also, a study found the program to be beneficial for Iranian children with results indicating that internalized symptoms significantly decreased in the Coping Cat condition, and over 30% of participants went from clinically severe levels of anxiety to the normal range (Dadsetan, Tehranizadeh, Tabatabaee, Fallah, & Ashtiani, 2011).

In general, RCTs have demonstrated that studies typically find that one-half to

two-thirds of children positively respond to treatment as evidenced by reduction in anxiety symptoms and improvement in functioning. Nevertheless, Keeton and Ginsburg (2008) point out that a substantial number of children, up to 45%, do not make optimal gains from treatment and they question how to improve interventions to increase positive outcomes in children and adolescents. Similarly, Alfano and colleagues (2009) emphasize that, since approximately one-half of anxious youth do not benefit from treatment, “[This] underscores a need to better understand specific factors associated with treatment response. Theoretical models have continued to flourish despite a general lack of data documenting changes in mechanisms hypothesized to underlie these childhood disorders.” This lack of understanding of why some children do not respond to treatment makes tailoring interventions to best serve individuals difficult because the treatment components and specific clients most likely to benefit from interventions are relatively unknown.

Including Parents in Youth’s CBT intervention

Some researchers posit that parental and family factors are related to successful treatment for anxious youth (Barmish & Kendall, 2005). Children who have an anxious parent are more likely to have an anxiety disorder than children who do not have an anxious parent (Micco, Henin, & Mick, 2009). Not only is parental psychopathology associated with higher levels of child anxiety, but it also may play a role in the maintenance of anxiety disorders and lead to poorer treatment outcomes for children (Cobham, Dadds, & Spence, 1998; Rapee, 2000; Southam-Gerow, Kendall, Weersing, 2001). Furthermore, specific parenting behaviors, such as excessive accommodation or

over-control, are associated with higher anxiety in youth (McLeod, Wood, & Weisz, 2007; Wood, McLeod, Sigman, Hwang, & Chu, 2003). Regardless of parents' contributions to their child's anxiety, parents also play an integral part in the generalization and maintenance of therapeutic change (Braswell, 1991). Therefore, researchers have argued that including parents in their child's intervention could have numerous benefits including: reduction of parental anxiety and the chance of transmitting this anxiety to the child, generalization of treatment components outside of the therapeutic setting, training of parents as a coach for the youth to conquer anxieties independently, and less dependence on the cognitive level of the child (Simon, Bogels, & Voncken, 2011).

Randomized control trials that have compared childhood anxiety with and without parental involvement in treatment, have not yielded clear results. More specifically, one study has demonstrated clear benefits of including parents in youth intervention in which 70.3% of children in the youth-only CBT condition did not meet criteria for an anxiety disorder 12-months post-treatment compared to 95.6% of the children in the CBT and family condition (Barrett, Dadds, & Rapee, 1996). While other studies have yielded nonsignificant trends (Cobham, Dadds, & Spence, 1998; Mendlowitz et al., 1999; Spence, 2000; Wood, Piacentini, Southam-Gerow, Chu, & Sigman, 2006) or no effect (Nauta, Scholing, Emmelkamp, & Minderaa, 2001; Nauta, Scholing, Emmelkamp, & Minderaa, 2003; Simon et al., 2011; Silverman, Kirtines, Jacard, & Pina, 2009). Furthermore, one study even found that at post-treatment, child-only treatment was more beneficial than family CBT (Bodden et al., 2008). They also noted that both child and

family CBT were less effective if the parents had an anxiety disorder. In contrast, another study evaluating the effect of a parent-only CBT intervention found that only youth whose parents also were anxious improved (Thieneman, Moore, & Tompkins, 2006). Thus, these studies yielded mixed results about whether including parents in anxiety interventions for children and adolescents has a clear benefit above and beyond what has been found in individual CBT.

Therefore, a study is being conducted at the Texas Child Study Center, the outpatient mental health facility for Dell Children's Medical Center, in which the addition of a parental training component to a CBT intervention for anxious youth is being examined to evaluate the potential benefits of including parents in intervention for pediatric anxiety. In this study, the youth intervention program follows the Coping Cat manual designed by Kendall (1990). The parent intervention component follows a newly developed protocol (Stark et al., in progress) that is intended to correspond to the Coping Cat program. The parent-training component focuses on psycho-education about the child's anxiety, understanding the coping skills and problem-solving strategies the child is learning, training on how to develop fear hierarchies and conduct exposures at home, explaining appropriate parental modeling, and providing alternative parenting strategies rather than accommodation. This parent treatment is based on the partial success of previous treatments including parents; therefore, it should provide strong support for either the inclusion or exclusion of parents in interventions for anxious youth. If successful, the particular components of the parent intervention that were most beneficial should be identified in order to incorporate these factors into future treatments.

EXPLORING MECHANISMS OF CHANGE

Many studies have demonstrated that CBT is an efficacious intervention for anxious youth; however, they have failed to explore how or why this treatment produces positive therapeutic change (Hudson, 2005; Kazdin, 2002; Kazdin & Nock, 2003; Kazdin, 2009). One way to understand how treatment leads to therapeutic change is an exploration of the mechanisms of change. Kazdin (2003) defines mechanisms of change as the “process through which therapeutic change occurs.” Kazdin (2004) outlines several reasons for why exploring the mechanisms of therapeutic change are important. First, there have been over 550 treatments designed for children and adolescents. It is not likely that all of these therapies bring about change differently; therefore, understanding the mechanisms of change can bring order and coherence to these multiple interventions. Kazdin also points out that therapy not only reduces socioemotional distress, but can also bring about secondary changes such as reduction in physical symptoms or improvement in quality of life (2004). Since therapy affects an array of outcomes, exploring how therapy produces change can clarify the connections between what is done in treatment and what happens in the outcomes. Kazdin also points out that understanding therapeutic change can aid in the identification of moderators of treatment, or factors that affect the success of treatment. However, perhaps the most important reason for exploring mechanisms of change is to optimize therapeutic change. Most treatments, including CBT, have multiple components, and it is unclear which of these components makes a difference in treatment outcome and which fail to optimize therapeutic change (Kazdin, 2004).

Since the specific components of treatment (e.g., exposures, cognitive restructuring, etc.) are based on the cognitive behavioral model, they are thought to be effective mechanisms of change. In adults with anxiety, numerous studies have examined which components of CBT interventions are efficacious. Most studies have demonstrated that exposures or exposures and cognitive restructuring combined are superior to cognitive restructuring alone or relaxation alone (Borkovec & Costello, 1993; Menzies & Clarke, 1995). In fact, some studies have shown that the combination of anxiety management strategies like cognitive restructuring enhance the effectiveness of exposures (Butler, Cullington, Munby, Amies, & Gelder, 1984; Mattick & Peters, 1988), but other studies have indicated that exposure alone produces greater changes than combined components (Hope, Heimberg, & Bruch, 1995). However, more often than not, research demonstrates that the combination of exposure and cognitive restructuring produces equivalent changes to exposure alone (Bryant, Sackville, Dang, Moulds, & Guthrie, 1999).

In contrast, there have been few studies that have explored the effective components of interventions for anxious youth, and it cannot be assumed that the effective components of treatments in adults will be the same for youth. Eisen and Silverman (1993) looked at four children who had GAD, and compared the use of cognitive restructuring skills with exposures, relaxation skills with exposures, and a combination of both cognitive restructuring and relaxation with exposures. The study found that exposure with either cognitive restructuring or relaxation skills produced similar changes. Kendall and colleagues (1997) conducted a RCT with CBT for anxious youth and found that, when comparing the skills building component to the practice

component, change did not occur until after the exposure component according to self-report measures.

In a RCT of CBT for children with specific phobias, Silverman and colleagues (1999) compared two treatment conditions. One was a self-control (SC) condition in which gradual exposure was accompanied with skills training. The second condition was a contingency management (CM) condition, which included gradual exposure with accompanied parent-training of techniques such as positive reinforcement, shaping, and consistency. The results revealed that 88% of children in the SC condition no longer met criteria for a phobia at post-treatment, compared to 55% in the CM condition. These findings suggest that teaching children skills prior to exposures enhances the efficacy of therapy (Hudson, 2005).

In addition to the specific components of CBT, there are other important aspects to treatment, often called common factors, which may in fact bring about change. Common factors are the aspects that are not specific to any one therapy, but are common across all therapies (Lambert & Ogles, 2003). Some researchers believe that the common factors, rather than the specific components of different therapies, are responsible for the mechanisms of therapeutic change. Grenavage and Norcross (1990) classify common factors into five broad categories: client characteristics (e.g., client race, socioeconomic status, gender, client motivation, client hopefulness, and client expectations), therapist qualities (e.g., demographic variables and theoretical orientation, years of experience, and training), change processes (e.g., catharsis, clients acquiring and practicing new behaviors, and therapists providing a treatment rationale), treatment structure (e.g., use of

specific therapy techniques and therapist adherence to a theory), and therapeutic relationship (e.g., therapeutic alliance, and engagement). Since both specific and common factors are thought to affect treatment outcome, it is important to identify these factors and understand how these variables contribute, alone and in combination, to positive therapeutic change for anxious youth.

IMPORTANCE OF THE PARTICIPANT'S PERSPECTIVE

The most important aspect of therapy is the client; therefore, it is imperative to understand from their point of view what contributes to positive treatment outcomes. One study has examined treatment outcome and mechanisms of change from the perspective of participants in a group CBT program for depressed girls (Molnar Warchola, 2007). However, no known studies have explored anxious youth's perspectives on treatment. While most research has been conducted on children and adolescents, there is a necessity to conduct research with children and adolescents to engage them as active participants and give them a voice (Grover, 2004). Without gaining insight into the participants' perspectives, researchers cannot know if youth understand, utilize, or find the intervention useful and beneficial. Furthermore, parents are also able to provide a unique perspective on the changes they observe in their child during therapy. In addition, since it is relatively unclear if it is useful for parents to be involved in their child's treatment, understanding the experience of what it is like to participate in a parent condition is important to identifying and recognizing the added benefits parent-training conditions can have on treatment outcome.

CBT is part of a collaborative process between the therapist and the client, but if the participants' perspectives on the treatment process and outcome are not obtained, then a key person responsible for change is being neglected. The only way to truly know how change occurs in CBT interventions for anxious youth is to give the participants a voice. That is, in order to understand which therapeutic factors have or have not contributed to treatment outcome, the participants must be allowed to voice their opinions about how they did or did not change as a result of being in CBT treatment.

SUMMARY AND RATIONALE

In summary, anxiety disorders in children and adolescents can have a detrimental impact on all aspects of functioning. Therefore, it is imperative that efficacious interventions are used in the treatment of pediatric anxiety. Cognitive behavioral therapy has been shown to be particularly successful in treating childhood anxiety disorders; however, little is known about how or why change occurs. Understanding both the specific and common factors that are the mechanisms of therapeutic change can optimize treatment outcome. In order to truly understand how children and adolescents change in therapy, the youth and their parents have to be given a voice. The present study aims to assess the mechanisms of therapeutic change in anxious youth by gaining insight into children and parents' perspectives on change.

Chapter 3: *Proposed Research Study*

STATEMENT OF THE PROBLEM

Although many studies have explored and demonstrated the effectiveness of CBT interventions for anxious youth, little research has been devoted to understanding the mechanisms of change (Kazdin, 2002, Kazdin & Nock, 2003, Kazdin, 2009). Consequently, it is clear that treatment works, but it is unclear why or how it works. Understanding the basis of therapeutic change should inform and optimize treatment by maximizing on the characteristics of interventions that are most effective. Knowledge about the mechanisms of change is “the best short-term and long-term investment for improving clinical practice and patient care (Kazdin & Nock, 2003).” Therefore, an important area of research is to identify the mechanisms of change that contribute to positive treatment outcomes.

Furthermore, little is known about what children and adolescents think about the CBT treatments they receive. No study to date has gathered data about the experience of treatment from the perspective of the participants. CBT interventions are assumed to provide anxious children and adolescents with useful information that they understand, find beneficial, and use to reduce their anxiety; however, youth have not verified these assumptions. By allowing participants the opportunity to voice their opinions about their own process of change, researchers can begin to understand the most important factors associated with positive treatment outcomes, ultimately leading to the most efficacious interventions.

Another important area of research that has not been extensively studied is the perspective of parents who have a child or adolescent with an anxiety disorder. Parents are an integral part of a child's life and are constantly observing their child's behavior. Therefore, they can provide a unique perspective on the changes they observe in their child over the course of treatment. Moreover, the research is unclear about the benefits of adding a parent-training component to CBT interventions for anxious youth; therefore, it is important to understand the experience of participating in parent-training sessions from the parents' perspective. They can speak to any benefits they experienced from the parent-training as well as identify specific aspects of training that were particularly helpful to inform future interventions for parents of anxious youth.

STATEMENT OF THE PURPOSE

There are three gaps in the research that this study seeks to address: the lack of research on the mechanisms of change for CBT interventions, the limited knowledge of how anxious youth perceive and experience their treatment, and the need to understand parents' perspectives on their child's treatment as well as their own experiences in parent-training. A study is being conducted at the Texas Child Study Center, which seeks to disambiguate the research on parent involvement in CBT with anxious youth by creating a model intervention involving collaboration between two therapists, the parent(s) and the child. This particular intervention provides the unique opportunity to examine both the child and parents' perspectives on the changes in their relationship and anxiety over the course of treatment.

This research project aims to gain an understanding of how and why mechanisms of change influence treatment outcome in anxious children and adolescents. By identifying the mechanisms that contribute to therapeutic change, a theory can be developed that can either lend support to old models of intervention or confirm a need to generate new models of interventions for anxious children and adolescents. The client is the most important factor in therapy; therefore, it is imperative to identify and understand the most beneficial components of therapy from the client's perspective to optimally meet their needs.

Qualitative research is an instrumental method to examine areas of research that have not been extensively studied (Strauss & Corbin, 1990). Since the thoughts, feelings, and experiences of clients are difficult to assess quantitatively, a qualitative approach, specifically grounded theory, will be used. Grounded theory is a type of qualitative research in which a theory is developed from the data through an inductive process while exploring a particular phenomenon. Therefore, instead of using the data to test a particular theory, this approach allows the data to reveal an underlying theory about the phenomenon of interest. Consequently, the investigation does not begin with hypotheses, but rather with broad research questions that will be revised over the course of the data collection process. These research questions seek to address the gaps in the literature and are informed from experience working with anxious youth and their parents as well as a brief review of exit interviews of family participants who already completed the program.

RESEARCH QUESTIONS

- 1. Overall Helpfulness of the Intervention:** How do youth and their parents view their twelve-week cognitive behavioral intervention? Is the treatment helpful? How effective is the treatment in reducing the child's anxious symptoms and increasing coping skills from the participants' perspective?
- 2. Comparisons Before and After Treatment:** How would youth and their parents describe the child's anxiety before treatment? How would youth and their parents describe the child's anxiety now? How did youth manage their anxiety before treatment? How do youth manage their anxiety now? How did parents address or respond to their child's anxiety before treatment? How do parents address or respond to their child's anxiety now?
- 3. Child Intervention Experience:** How do youth experience treatment? Do they change over the course of treatment? How do the specific components of CBT influence change? How do common factors associated with treatment influence change? Which specific components are most frequently recalled, best understood, most frequently used, and identified as most helpful? How do these skills help? Which specific components of treatment are least recalled or identified as least helpful?
- 4. Parent Intervention Experience:** How do the parents experience treatment? Which specific components of the parent-training are most frequently recalled, best understood, most frequently used, and identified as most helpful? How do

these skills help? Which specific components of the parent-training are least recalled or identified as least helpful?

5. Parent-Child Relationship: Has the parent-child relationship changed over time?

What were some of the benefits of including parents in the intervention from the child and parents' perspectives? Do the participants think that having the parent included in their intervention helped them to reduce their anxious symptoms and increase the coping skills learned?

METHOD

Participants

There is great debate about how many participants need to be recruited to conduct qualitative research. Creswell (1998) asserted that 20 to 30 participants need to be recruited in grounded theory research; however, other researchers have argued that 12 to 20 (Kuzel, 1992) or even as few as 6 to 12 (Guest, Bunce, & Johnson, 2006) are sufficient to generate a theory. However, other researchers argue that there is no prescribed sample size, but the sample needs to be broad and diverse enough to cover the phenomenon of study (Khambete, 2010). Nevertheless, for this study, approximately sixteen youth participants, eight males and eight females will be recruited between the ages of seven to seventeen years old. They will have a primary diagnosis of Generalized Anxiety Disorder, Separation Anxiety Disorder, or Social Phobia as determined by the semi-structured interview given at intake, the Anxiety Disorders Interview Schedule for DSM-IV: Child Version and Parent Version (ADIS; Lyneham, Abbott, & Rapee, 2007).

To meet criteria, the youth or parents must report an ADIS Clinical Severity Rating of at least four. Exclusionary criteria for youth participation include having any of the following disorders: Major Depressive Disorder, Bipolar Disorder, Psychotic Disorder, Pervasive Development Disorder, Uncontrolled ADHD (combined or primarily hyperactive type), Eating Disorders, or Substance Use Disorders as determined by the ADIS or needing in-patient care. Aside from the aforementioned disorders, any additional disorder cannot have a Clinical Severity Rating greater than the Clinical Severity Rating of the disorders of interest (GAD, SAD, SoP). Parents must be adults, at least eighteen years or older and must be the primary guardian of the youth participant. Both youth and their parents must be able to speak, read, and write in English.

Instrumentation

Semi-Structured Interviews

Semi-structured interviews will be the primary source of data. An interview script was developed to use as a guide during all interviews. The researcher constructed the basic outline of the interview scripts. The child interview guide is presented and described in Appendix A, and the parent interview guide is presented and described in Appendix B. The interviews will be conducted in private therapy offices at the Texas Child Study Center. The primary interviewer will be the researcher; however, an additional graduate student interviewer will be used if the participants received therapy from the researcher. In order to ensure consistency across interviews, a training will be conducted in which the two interviewers will discuss the purpose of the proposed study, review the interview, and discuss the importance of flexibility. Then, the additional

interviewer will watch two videos of the researcher giving the interview to one child and one parent. Questions or discrepancies will then be discussed. After this, the additional interviewer will conduct interviews with a child and a parent and the primary researcher will watch these videos to verify that the interviews are being given appropriately. Finally, after each interview, the interviewers will discuss any adaptations to questions for future interviews to address any new emerging themes. All interviews will be video and audio recorded and transcribed by undergraduate research assistants. To maintain the confidentiality of the participants, all information will be de-identified to protect their privacy.

Since the researcher will be conducting most of the interviews, a triangulation approach will be used to analyze the data. The triangulation approach is a technique often used in qualitative research to avoid experimenter bias in the analysis of the data. This approach involves gathering data from multiple informants and multiple sources and comparing the consistency of the participants' responses across these sources. First, multiple sources, both the parent and child, will describe their perspectives on the mechanisms of change that caused positive therapeutic change in the child. Furthermore, self-report measures will be utilized as an additional data source. These self-report measures are described below and will be used to verify the information provided in the interviews. Specifically, these self-report measures provide information on changes in anxious symptoms, coping skills, problem-solving skills, and parent-child relationship from pre to post-treatment. A self-report measure will also be completed about the therapeutic alliance.

Pediatric Anxiety Rating Scale (PARS)

The PARS is a clinician-rated scale to evaluate symptoms and severity of anxiety in youth (Research Units on Pediatric Psychopharmacology Anxiety Study Group, 2002). The first part of the scale consists of a 50-item symptom checklist in which the parent and child are asked if a particular symptom has been present within the past two weeks. The last seven items assess the severity of the child's anxiety. The child and parent are asked to think about the following topics within the last two weeks: the number of anxiety symptoms, the frequency of anxiety symptoms, the severity of anxiety feelings, the severity of physical symptoms of anxiety, the avoidance of anxiety-provoking situations, the interference with family relationships or performance at home, and the interference with peer relationships and performance outside of the home. Then, the clinician rates their responses on an eight-point scale. This interview will be conducted with both youth and parents at pre and post-treatment.

The PARS has high inter-rater reliability ($ICC = 0.97$), adequate test-retest reliability ($\alpha = .64$), and fair internal consistency ($ICC = 0.59$) (The Research Units of Pediatric Psychopharmacology Anxiety Study Group, 2002). Furthermore, the PARS has been shown to be strongly correlated with clinician-ratings of overall anxiety severity as well as parent self-report anxiety measures (Storch et al., 2012).

Children's Coping and Emotion Regulation Skills and Attitudes Measure (CQ)

The CQ is a 69-item questionnaire that is divided into two parts that assesses the presence of coping skills in children and adolescents (Stark, unpublished). In the first part, participants are given a variety of statements such as "I can handle most of my

problems” or “My feelings are out of control” and are asked to rate their responses on a scale ranging from 1 (not true) to 4 (always true). In the second part, participants are given a variety of statements about what people might do to improve their mood when they feel bad such as “Play outside,” “Tell myself it isn’t the worst thing in the world,” or “Talk to friends” and asked to rate how often they do this on a scale of 1 (I don’t do this at all/never) to 4 (I do this a lot of the time/always). The scale includes six dimensions of coping: distraction, relaxation, physical energy, social support, coping thoughts, and spirituality. The CQ will be completed by youth at pre and post-treatment.

Social Problem-Solving Inventory-Revised: Short Version (SPSI-R:S)

The SPSI-R:S is a twenty-five item questionnaire that assesses participants’ problem-solving abilities (D’Zurilla, Nezu, & Meydeu-Olivares, 2002). The participants are given a variety of statements about the way they might think, feel, and act when faced with problems. Participants are given statements such as “When problems occur in my life, I like to deal with them as soon as possible” or “I am too impulsive when it comes to making decisions” and asked to rate their responses on a scale ranging from 0 (not at all true of me) to 4 (extremely true of me). The measure includes five dimensions of problem-solving: positive problem orientation, negative problem orientation, rational problem-solving, impulsivity/carelessness style, and avoidance style. The SPSI-R:S will be completed by the child at pre and post-treatment.

The short version of the SPSI-R:S has been shown to be ideal for repeated administration such as pre to post-treatment to assess changes in participants’ problem-solving abilities over treatment (D’Zurilla, Nezu, & Meydeu-Olivares, 2002).

Furthermore, the SPSI-R:S has high internal consistency (ICC = .90) and high test-retest reliability ($\alpha = .91$). Hawkins, Sofronoff, & Sheffield, 2009). Furthermore, all five subscales demonstrated adequate internal consistency coefficients ranging from .73 for impulsivity/carelessness style, .80 for rational problem-solving, .82 for positive problem orientation, and .86 for both negative problem orientation and avoidance style.

Family Assessment Measure-III: Dyadic Relationship Scale (FAM-III Dyadic)

The FAM-III Dyadic is a forty-two-item scale that assesses how a family member views their relationship with another family member. For the purpose of this study, the child and parents fill out this measure regarding how they feel about their relationship with their child/parent. (Skinner, Steinhauer, & Santa-Barbara, 1995). Participants are given various statements about their family such as “If this person is angry with me, I hear about it from someone else” or “When I have a problem, this person helps me with it” and are asked to rate their responses on a four-item scale from strongly agree to strongly disagree. This measure will be given to both child and parent participants at pre and post-treatment.

The FAM-III Dyadic has high internal consistency (ICC = .95) (Skinner, Steinhauer, & Sitareinos, 2000). The average test-retest reliability for the FAM-III Dyadic subscales is .57 for mothers, .56 for fathers, and .66 for children (Jacob, 1995). This is considered reasonable considering there are only five items in each subscale.

Perception of Therapeutic Relationship (PTR)

The PTR is an eleven-item measure that assesses participants’ perceptions of the quality and closeness of their therapeutic relationship. The participants are given a variety

of statements such as “My therapist helped me feel better” or “My therapist cares about my family’s well-being” and are asked to rate how much they agree on a five-item scale ranging from definitely no to definitely yes. The PTR was developed by the research team and is not published. Youth and parents will fill these measures out after six weeks of treatment and then post-treatment. Youth will fill this measure out about their relationship with their therapist, while parents will fill out this measure about their relationship with their therapist and also the relationship their child has with the child’s therapist.

Procedures

Participation in the Larger Study

Participants will be drawn from a larger study examining the effectiveness of a CBT intervention with an added parent-training component for anxious youth. In the study, potential participants are referred from psychiatrists, psychologists, and other mental health professionals in the community. Study coordinators contact the interested potential participants via telephone and conduct a brief screening using the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher, Khetarpal, Cully, Brent, & McKenzie, 1997) to assess youth anxiety symptoms. If anxiety symptoms are present, potential youth and parent participants are invited to give informed consent, complete an intake demographic form, and attend an intake interview, the Anxiety Disorders Interview Schedule for DSM-IV: Child Version and Parent Version (ADIS; Lyneham, Abbott, & Rapee, 2007), in order to establish a diagnosis of either GAD, SoP, or SAD and to rule out exclusionary criteria. After the family has consented to participate

in the study and deemed eligible (see Appendix C for the parental consent form and Appendix D for youth assent), pre-treatment data is collected from youth and parent participants no more than one week prior to the initial treatment session. This includes administration of the PARS interview and the completion of the CQ, SPSI-R:S, and FAM-III Dyadic self-report measures. The child and parent will also complete measures about the therapeutic relationship at six weeks and at post-treatment.

Participants are then randomized into one of two conditions. The first condition is the child-only condition, consisting of twelve youth-only CBT sessions with two parent-only sessions. One-third of participants are randomized into this condition. For more detailed information, refer to Appendix E. The second condition is the parent-training condition in which the child and the parent both have their own therapists. Twelve individual therapy sessions are conducted with both the youth and the parent meeting separately with their individual therapists and then coming together at the end of each session to collaborate. Two-thirds of participants are randomized into this condition. For more detailed information, refer to Appendix F. All sessions last approximately sixty minutes. Then, after participating in twelve-weeks of intervention, participants are asked to complete post-treatment measures within one week. This includes the administration of the PARS interview and completion of the CQ, SPSI-R:S, FAM-III Dyadic, and PTR.

Post-Treatment Procedures

After the twelfth session, therapy goals and the PARS interview are evaluated to determine the presence and severity of the participant's anxiety. Youth who do not improve after twelve-weeks continue to receive weekly treatment in the condition they

were randomized into until they are no longer experiencing anxiety. During this time, goals are set with the child and the parent, and the therapy sessions focus on accomplishing these goals and reducing the child's anxiety symptom. After symptoms remit, the PARS interview and post-treatment self-report measures are completed again. Then, these participants receive monthly booster sessions for six months. After six months, the participants are asked to complete the PARS and additional self-report measures for a final time.

In contrast, some participants are no longer experiencing anxiety after twelve-weeks of intervention. In this case, the participant no longer receives weekly sessions, but instead participates in monthly booster sessions for six months. After six months, at the final follow-up, the PARS interview and self-report measures are completed again.

Youth Intervention Treatment Content

The youth intervention program is a twelve-session adapted version of the Coping Cat manual (Kendall, 1990), and the parent-training component follows a new treatment protocol (Stark et al., in progress) designed to coincide with the Coping Cat program. The first five sessions are considered the training segment of the intervention. These sessions focus on psycho-education about anxiety and the development of different skills. The child learns a four-step plan for managing their anxiety and increasing coping skills using the acronym FEAR: **F**eeling Frightened?, **E**xpecting bad things to happen?, **A**ttitudes and **A**ctions that can help, and **R**esults and **R**ewards. In the first step, feeling frightened, youth develop an awareness of how their body reacts to feelings in general, but specifically anxiety. They learn to recognize early signs that they are feeling anxious

from what their body is telling them. In the second step, expecting bad things to happen, children and adolescents learn to recognize and modify self-talk. In the third step, attitudes and actions, participants learn coping skills and problem-solving skills that help them manage their anxiety. Finally, in the results and rewards step, the youth learn to evaluate how they performed and reward themselves, even for partial success.

Sessions six through twelve are considered the practice segment of the intervention. During these segments, youth practice imaginary and in vivo exposures in low-anxiety, moderate-anxiety, and eventually high-anxiety situations. The youth participants practice using the skills learned in the first half of the intervention in order to progress through the exposure tasks. During session twelve, the intervention concludes with the therapist and child collaboratively summarizing the program together and the youth completes a final project, such as a video or collage, to demonstrate all that they have learned and accomplished.

Parent Intervention Treatment Content

In the parent-training component of the intervention, parents learn the same information that their child is learning in each session. For example, parents are given psycho-education about their child's anxiety, learn the FEAR plan, and observe and participate in the exposure tasks. In addition, parents are taught about the concept of accommodation and how that can add to their child's anxiety in addition to learning the importance of modeling appropriate behavior for their child during anxious situations. Furthermore, parents are trained to create fear hierarchies with their child and practice in vivo exposures in the home and outside of the therapeutic setting. Parents are also

provided with consultation about their youth's anxiety and are continually updated and asked to collaborate on their child's progress in therapy.

Recruitment and Methodology for the Proposed Study

In qualitative research, emphasis is placed on developing a deep understanding of particular phenomenon by obtaining "information-rich cases," rather than focusing on generalization to a larger population as in quantitative research (Sandelowski, 1995). Therefore, in this study, theoretical sampling will be used to recruit children and parents from the larger study in which participants will be selected based on the desire to obtain a variety of perspectives as well as a need to further understand aspects of the developing theory. Theoretical sampling is a cumulative process in which "researchers take one step at a time with data gathering, followed by analysis, followed by more data gathering until a category reaches a point of saturation" (Corbin & Strauss, 2008). Essentially, data gathering and data analysis occur simultaneously so that collected interviews can inform future interviews. In this method of data collection, the researcher is less concerned with consistency across interviews and more concerned with important theoretical concepts. Therefore, as data collection progresses, more detailed questions will be asked to participants about theoretical constructs, which emerged from previous interviews.

Participant recruitment stops once the point of saturation has been reached. Saturation is defined as "when no new categories or themes are emerging" (Corbin & Strauss, 2008). However, qualitative research is not simply a list of categories, it is an understanding of the meaning behind the categories. Therefore, data analysis must be conducted at the same time as the data collection in order to know when enough data is

collected. Once the researcher has in-depth knowledge about each category and a full understanding of the dimensions and properties of these categories in different circumstances and from different perspectives, then saturation has been reached and data collection can stop. Although a rough estimate of sixteen participants is desired for the proposed study, there might be more or less because it is difficult to identify an exact number of participants that need to be recruited to reach saturation.

Once participants have agreed to participate, the primary data collection phase will consist of individual, semi-structured interviews with the youth and parents separately. All of the participants will complete initial interviews, which will be approximately 60 to 90 minutes in length. Furthermore, the researcher will also compile the data from the self-report measures at pre and post-intervention. If the youth continues to receive weekly therapy after the twelve-weeks, a follow-up interview will be given to both the child and their parent(s) upon completion of their weekly therapy sessions. Finally, additional follow-ups will be scheduled on an as-needed basis to conduct member checks, which seek to clarify and verify information that the participants provided. The follow-up interviews will take approximately 30 to 45 minutes.

Chapter 4: *Data Analysis*

The grounded theory approach of qualitative research will be utilized to analyze the data in the present study. After the interviews are transcribed verbatim, transcripts will be read in their entirety to gain a general understanding of the experiences of these participants. Main concepts that stand out from each interview will be noted. After the preliminary reading, a more detailed analysis will be conducted using a series of coding methods. During the coding process, the information provided in the interviews will be divided into meaningful units to generate themes. The three specific coding techniques that will be used will include open, axial, and selective coding to ultimately generate a storyline and develop a theory. The researcher will code all of the interviews.

According to Strauss and Corbin (1998), open coding involves identifying concepts in the data and developing these concepts into themes based on their properties and dimensions. Open coding will occur in combination with data collection. As interviews are read, the data will be broken down into small, meaningful units. These units can range from a word or a phrase to a paragraph and seek to capture a key concept in the interview. Each meaningful unit will be given a label based on terms from the literature or “in vivo” codes of the participant’s own words. Many codes will emerge and similar codes will be grouped together in categories.

Open coding and axial coding will take place simultaneously. Axial coding is defined as the process of making connections between the different categories. However,

Corbin and Strauss point out that “the distinctions between the two types of coding are ‘artificial’ and for explanatory purposes only, to indicate to readers that though we break data apart, and identify concepts to stand for the data, we also have to put it back together again by relating those concepts (2008).” In reality, once a category is identified it is natural to automatically link it to other categories, so it makes sense that these two coding techniques occur simultaneously. Furthermore, concepts from the coding might emerge that will need further exploration in future interviews, so the data analysis will shape the data collection process accordingly.

Memos are a helpful technique that are often used during the coding process. Memos are notes taken at the time of analysis to record the analytical thinking behind a given code (Corbin & Strauss, 2008). Not only are memos a record of analysis, but they also force the researcher to reflect on their thoughts in order to be able to effectively put thoughts down on paper for reference and re-consideration. In addition, memos are a storage of analytic thought that can later be sorted and ordered based on the evolving analysis. The researcher will keep memos throughout the data analysis process in order to keep a record of the analytic thought behind each code.

Finally, selective coding is the generation of a central phenomenon that relates to and integrates all of the significant individual categories. This theoretical integration aims to construct an overarching theory that is grounded in the data from the individual interviews. In this study, core categories will be identified and then evaluated to determine goodness of fit with the data. Core categories that fail to integrate the categories and subcategories generated from the interviews will be discarded, but the core

category that demonstrates goodness of fit with the data will be further explored and a storyline will be built around this category.

A storyline will allow the researcher to integrate all of the categories discovered from the data to explain what is occurring. First, the researcher will describe what the interviews were about. From there, the researcher will integrate all of the main categories that emerged from the interviews into a unified theoretical explanation. In this case, “integrating means choosing a core category, then retelling the story around that core category using the other categories and concepts derived during the research (Corbin & Strauss, 2008).” After this process, a diagram will be created to explain the main theoretical constructs that were identified from the interviews.

During qualitative research, it is important to discuss the ways in which precautions will be taken to ensure the trustworthiness of the analysis. In this study, since the researcher will be conducting the data analysis, triangulation, member checks, and peer debriefing will be used to increase the trustworthiness of the findings. Triangulation, as discussed earlier, is when data is compared and confirmed from multiple sources and multiple informants. Peer debriefing is when colleagues are consulted to discuss the analyses and codes assigned from the data. In this study, peer debriefing will be used with a fellow graduate student to compare results and conclusions with another researcher. Finally, member checks involve presenting preliminary interpretations of the data to the participants for review and feedback. This will occur during follow-up interviews to ensure that the researcher understood what the participants were trying to say about various concepts during their interviews.

Chapter 5: *Expected Results*

The expected results are broken down for each set of research questions below and a summary of the overall results is provided at the end.

OVERALL HELPFULNESS OF THE INTERVENTION

Youth and parents will be satisfied with their treatment. Furthermore, interviews and self-report measures will reveal that the intervention was helpful and did reduce the child's anxiety symptoms and increase the child's coping skills.

COMPARISONS BEFORE AND AFTER TREATMENT

There will be vast differences in the way parents and youth describe the child's anxiety before and after treatment. Before treatment, anxiety will be described as heightened and interfering with a variety of areas of the child's life. After treatment, anxiety will be described as minimal or manageable. Youth and parents will identify effective strategies that they use to manage anxiety or address their child's anxiety that they did not know about before treatment.

CHILD INTERVENTION EXPERIENCE

Youth will report unique experiences of the intervention, but it will be positive. Youth will report changes in the way they think, behave, and communicate with their parents. The child will be able to identify specific components of the treatment that created change and specific components that did not. These components might include

the therapeutic relationship, exposures, coping skills, problem solving, or having their parent participate in the intervention with the child. Also, the components of the treatment that were not recalled at all will be noted.

PARENT INTERVENTION EXPERIENCE

Parents will have a positive experience participating in their child's intervention. Parents will be able to identify treatment components that created change and some components that did not. These components might include knowledge about their child's anxiety, appropriate vocabulary to use with their child, techniques for modeling appropriate behavior, and exposures. Also, the components of the treatment that were not recalled at all will be noted.

PARENT-CHILD RELATIONSHIP

The intervention will improve the parent-child relationship. Children will be able to identify benefits of having their parents included in treatment. Youth and parents will feel that including parents in the intervention helped reduce their anxiety and increase the skills they learned.

DEVELOPMENT OF A THEORY

In general, this study aims to understand the mechanisms of change participants experience from the youth and parents point of view. A range of meaningful units will be identified from the extensive initial and follow-up interviews, which will generate a variety of categories for comparison. Ultimately, one core category will emerge that

integrates all of the major concepts that will be integrated into a theoretical explanation of mechanisms of change from the experience of anxious youth and their parents. In a similar study conducted by Molnar Warchola, the core category that emerged from her exploration of a group therapy for depressed adolescent females was the helpfulness of the intervention (2007). Perhaps, the data will reveal a similar core category.

Furthermore, given the cognitive behavioral model that CBT is based on, changes in cognitions and behaviors should ultimately create lasting therapeutic change in participants, so perhaps another core category that could emerge would be changing the way participants think or act.

Chapter 6: *Discussion*

SUMMARY AND LIMITATIONS

The proposed study seeks to identify the specific and common factors that act as mechanisms of change by exploring the child and parents' perspectives on their change over therapy through semi-structured interviews. In the interviews, participants will be asked to verify if the intervention was helpful and brought about positive therapeutic change, to identify specific and common factors in the treatment that lead to change, and to explain any added benefits of including parents in the intervention process. The responses from the interviews will be broken down into meaningful units and open coding, axial coding, and selective coding will be used to analyze the data and ultimately generate a central phenomenon that relates to and integrates all of the significant individual categories. After theoretical integration of the concepts, a storyline will be built around the core category to explain how positive therapeutic change occurs in anxious children and adolescents. Finally, a diagram will be created to depict the main theoretical constructs that were identified from the interviews.

There are several limitations to the present study. One limitation involves the reliance on participants' feedback. There is always a concern that what people say they do is different from what they actually do. The study attempts to verify what people say by receiving information from multiple informants, the child and the parent, as well as confirming increases in skills development from self-report measures. Future studies

might want to conduct observations or verification from the therapist about the behaviors of the child and parent in anxiety-provoking situations at the end of treatment.

Furthermore, the method of gathering information through semi-structured interviews might be challenging for younger participants or for participants with reduced verbal skills. In addition, participants might have difficulty responding to open-ended questions, providing comprehensive and detailed responses, or having insight into their change process. The proposed study hopes that by interviewing both parents and children, a comprehensive picture of how youth change over the course of therapy will unfold.

Finally, another limitation is the ability to generalize these findings to other populations or treatments of anxious youth.

IMPLICATIONS

The ultimate aim of this study is to provide a theory about the mechanisms of change that will optimize treatment for anxious youth. If there is a greater understanding for how changes come about, perhaps it will be easy to identify better, different, or more strategies that trigger critical change processes. The study seeks to identify specific and common factors that lead to change and to also recognize factors that do not bring about change. Therefore, the strategies that optimize treatment can continue to be incorporated and emphasized in treatment, but the factors that are not causing therapeutic change to occur can be removed from future treatments to provide an effective and efficient intervention for anxious youth. In clinical settings, time and resources can be restricted; therefore, it is important to provide effective interventions that only include strategies

that are the most capable of producing positive therapeutic change.

Furthermore, since the research has been unclear, the study also seeks to gain insight into the benefits of including parents in their child's intervention. If child and parent participants recognize the importance of including parents in treatment based on improved family functioning or treatment generalizability and retention, it provides strong support for continuing to include parents in their child's intervention in the future. Moreover, the specific components of the parent interventions that are most useful can be incorporated into future interventions.

Finally, the study seeks to demonstrate the importance of understanding the experiences and perspectives of participants. Consumers are often sought out to provide their opinion on various products in the market. Specific to this context, the consumers of therapy are the children and family participants that undergo treatment. Therefore, their perspective is vital to improving and understanding the treatment process.

Appendices

Appendix A: Child Semi-Structured Interview Guide

Introduction:

Hi! My name is _____. Today I would like to find out what it is like to be in the Coping Cat program. I know about the program, but I've never been in it. I know adults don't often ask kids about what they think about things, but I am really interested in hearing about what you think about the program and how it has or has not helped you. There are no right or wrong answers, I just want to know what the experience was like for you. Is that okay?

Overall Helpfulness of the Intervention:

Tell me about what the Coping Cat program was like for you. Describe your experience/what you did in the program.

What did you like/not like?

Did the Coping Cat program help you with your anxiety? Is so, how?

What was the most memorable part of the program? Why was that memorable?

What was the worst part of the program? Why was that the worst?

Why would this program help some kids but not others?

Is there anything that was hard to understand about the program?

What would make the program better?

Comparisons Before and After Treatment:

How would you describe your anxiety before treatment?

How would you describe your anxiety now?

What did you do when you were anxious before you were in the Coping Cat program?

What do you do when you have anxiety now?

How did your parents help you with your anxiety before treatment?

How do your parents help you with your anxiety now?

Have you noticed any other differences or changes since you started this program?

Child Intervention Experience:

Do you feel like you changed over the Coping Cat program? What helped you change?

Tell me about what you learned in the Coping Cat program.

Give me an example of when you have used that. Was that easy or hard?

What gets in the way of being able to use the things you have learned in the program?

Thinking about the skills you have learned, what has helped you the most? The least?

What is the difference between X (the thing that helped the most) and Y (the thing that helped the least)?

If you wanted to tell other kids about this program, what would you tell them?

Parent-Child Relationship:

Has your relationship with mom/dad changed over the program? How?

Do you think it is helpful for kids to have their parents participate in the Coping Cat program with them? Why?

How would this program be different if your parent did not do it with you?

What was the difference between the time you were with your therapist alone and the time you were with your therapist, mom/dad, and their therapist?

Is there anything else you would like to tell me about the Coping Cat program?

Thank you so much for answering my questions! You helped me understand what the program was like for you.

Appendix B: Parent Semi-Structured Interview Guide

Introduction:

Hi! My name is _____. Today I would like to find out what it was like for you and your child to participate in the Coping Cat program. I know about the program, but I've never been in it. I am really interested in hearing about your experience and how it has or has not helped you.

Overall Helpfulness of the Intervention:

Tell me about what the Coping Cat program was like for you?

Describe your experience/what you did in the program.

What did you like/not like?

Did the Coping Cat program help your child with their anxiety? If so, how?

What was the most memorable part of the program? Why was that memorable?

What was the worst part of the program? Why was that the worst?

Why do you think this program would help some kids but not others?

Is there anything that was hard to understand about the program?

What would make the program better?

Comparisons Before and After Treatment:

How would you describe your child and their anxiety before treatment?

How would you describe your child and their anxiety now?

What did your child do when they were anxious before they were in the Coping Cat program? What do they do when they have anxiety now?

How did you help your child with their anxiety before treatment?

How do you help your child with their anxiety now?

Have you noticed any other differences or changes in you or your child since you started this program?

Child Intervention Experience:

Do you feel like your child changed over the Coping Cat program? What helped them change?

Tell me about what your child learned in the Coping Cat program.

Give me an example of when they have used that. Was that easy or hard?

What gets in the way of your child being able to use the things they have learned in the program?

Parent Intervention Experience:

Tell me about your experience in the parent-training part of the program?

Thinking about the skills you have learned from this program, what has helped you the most? The least?

What is the difference between X (the thing that helped the most) and Y (the thing that helped the least)?

Parent-Child Relationship:

Has your relationship with your child changed over the program? How?

Do you think it is helpful for parents to participate with their child in the Coping Cat program? Why is it helpful?

How would this program be different if you did not participate with your child?

Is there anything else you would like to add?

Thank you so much for answering my questions! You helped me understand what the program was like for you.

Appendix C: Parental Consent Form

Consent for Participation in Research

Title: Investigating the Effects of an Added Parent Component to Cognitive Behavior Therapy (CBT) for Youth with Anxiety Disorders

Introduction

The purpose of this form is to provide you with information that may affect your decision as to whether or not to participate in this research study. Please read the information below and ask any questions you might have before deciding whether or not to take part. The researcher will describe the study to you and answer all of your questions. If you decide to be involved in this study, this form will be used to record your consent.

Purpose of the Study

You have been asked to participate in a research study investigating the addition of a new manualized parent component to treatment for youth with anxiety disorders. The purpose of this study is to evaluate the impact of this parent component in CBT treatment. Along with measuring improvement in your child's emotional functioning, we are interested in evaluating the impact of the treatment on your satisfaction, the quality and characteristics of your relationship with your child, and your own anxiety symptoms.

What will you to be asked to do?

If you agree to participate in this study, you will be asked to:

- Complete baseline measures about your child's and your own emotional functioning
- Attend 12 therapy sessions concurrently with your child; You will meet separately with your own therapist for the first 45 minutes, and together with your child's therapist for the last 15 minutes of each session.
- Complete weekly measures of your child's and your own anxiety symptoms
- Complete post-intervention questionnaires
- Complete post-intervention interviews
- Complete a subset of questionnaires six months after the conclusion of treatment

Total participation in this study is estimated to take a maximum of 16 weeks. There will be approximately 60 other parents participating in this study.

Your participation will be audio/video recorded for transcription purposes. You will have the option to allow the recordings to also be used for educational purposes.

What are the risks involved in this study?

This intervention may involve risks that are currently unforeseeable. Possible risks associated with this study are discussed below:

- During the therapy sessions, you may feel discomfort or distress about watching your son or daughter practice coping in fearful situations. Researchers will begin with situations that are easier for your child and work up to those that are more difficult. This procedure has been used with thousands of youth on a regular basis and is not an experimental procedure, rather is the gold standard for the treatment of anxiety disorders. In addition, they will teach several coping skills and ensure comprehension before beginning exposure tasks. Choosing to practice will be the decision of your child; your child will not be forced to complete an exposure that is too difficult for him/her.

- After the completion of the intervention, you may feel distress if your child's anxious symptoms have not improved. In this case, you will be referred for continued treatment or other avenues for support. Based on existing research 62 to 72% of the youth participants will no longer be experiencing an anxiety disorder at the end of treatment.

- Possible disclosure or discovery of information about familial, child, or other forms of abuse or neglect is another risk of participating in this study. Any disclosed abuse will be reported to Child and Family Protective Services, 1-800-252-5400, in accordance with Texas State Law.

What are the possible benefits of this study?

In addition to potential improvement in your child's anxiety symptoms, the possible benefits of participation for you are improvement in your own anxiety symptoms. Together this may result in enhanced well-being and improvement in family functioning.

Society could also potentially benefit from clarification of the impact of a parent-component in a CBT intervention for anxious youth above and beyond youth-only CBT.

The potential benefits for you and your child, both short-term and long-term due to participation in the therapy program, far outweigh the potential disadvantages. If your child does not improve through participation in the therapy program, he or she will be offered the opportunity to consult with a psychiatrist in the Texas Child Study Center at no expense to the family. Adding an anti-anxiety medication to the treatment regimen increases the likelihood of success to about 82 to 84%.

Do you have to participate?

No, your participation is voluntary. You may decide not to participate at all or, if you start the study, you and your child may withdraw at any time. Withdrawal or refusing to participate will not affect your relationship with The University of Texas at Austin or the Texas Child Study Center in any way.

If you would like to participate, please sign this form and return it to the study coordinator. You will receive a copy of this form for your records.

What are the alternatives to participating in this research?

Your child has been randomized into the youth CBT + parent component condition. If you do not want to participate, or if you withdraw your participation, your child cannot participate either. If you choose not to participate, the study coordinators will provide you with information for alternate avenues of support for your family.

Will there be any compensation?

Neither you nor your child will receive any type of payment for participating in this study.

What are my confidentiality or privacy protections when participating in this research study?

This study is confidential and every effort will be taken to maintain your privacy. To protect participant confidentiality, each participant will be assigned a number at the outset of the study, and all measures completed by each youth and parent participant will be de-identified in such a way as to use the number in place of the participant or parent name. A roster of individual names and their corresponding researcher-assigned participant numbers will be maintained in a password protected document on a password-protected computer. Raw data and any printed transcriptions will be stored in a locked filing cabinet in a locked office throughout the duration of the study, and for ten years after the minor reaches the age of majority, in keeping with guidelines set forth by the Texas State Board of Examiners of Psychologists [465.22], and ethical/legal guidelines of the American Psychological Association. All other electronic data will be similarly safeguarded in password-protected files on password-protected computers.

If you choose to participate in this study, you will be audio and/or video recorded. Recordings will be stored securely and only the research team will have access to them for transcription and research purposes. With your permission (indicated on a separate form), recordings will be kept for educational training purposes for five years and then erased.

The data resulting from your participation may be used for future research or be made available to other researchers for purposes not detailed within this consent form.

Whom to contact with questions about the study?

Prior, during or after your participation you can contact the researcher **Kevin Stark** at **[512-324-3315]**. This study has been reviewed and approved by The University of Texas at Austin Institutional Review Board and the study number is **[STUDY NUMBER]**.

Whom to contact with questions concerning your rights as a research participant?

For questions about your rights or to report dissatisfaction with any part of this study, you can contact, the Institutional Review Board by phone (anonymously if you wish) at (512) 471-8871 or email at orisc@uts.cc.utexas.edu.

Signature

You have been informed about this study’s purpose, procedures, possible benefits and risks. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights. You will be given a copy of this document.

Printed Name

Signature

Date

As a representative of this study, I have explained the purpose, procedures, benefits, and the risks involved in this research study.

Print Name of Person obtaining consent

Signature of Investigator

Date

Appendix D: Youth Assent Form

Assent for Participation in Research

Title: Investigating the Effects of an Added Parent Component to Cognitive Behavior Therapy (CBT) for Youth with Anxiety Disorders

Introduction

You have been asked to be in a research study about helping youth to feel better who feel worried or nervous. This study was explained to your parent(s) and she/he/they said that you could be in it if you want to. We are doing this study to see if including parents in treatment will help youth feel even better than if only the youth is in treatment.

What am I going to be asked to do?

If you agree to be in this study, you will be asked to:

- Do interviews at the beginning and end of the study
- Fill out some surveys at every visit
- Attend treatment sessions that last about an hour

This study will take 12-16 weeks (3-4 months) and there will be about 60 other children and 60 parents who participate. You will be audio/video recorded with your parent's permission.

What are the risks involved in this study?

This study may involve some risks, but these risks are unlikely. Possible risks are that you may feel uncomfortable. However, your therapist will not force you to do anything that you do not want to do.

Do I have to participate?

No, participation is voluntary. You should only be in the study if you want to. You can even decide you want to be in the study now, and change your mind later. No one will be upset. If you would like to participate, sign this form and give it to the adult that handed it to you. You will receive a copy of this form so if you want to you can look at it later.

Will I get anything to participate?

You will not get paid for participating in this study.

Who will know about my participation in this research study?

This study is private. Your answers may be used for a future study by these researchers or other researchers but no one will know that it is your information.

Signature

Writing your name on this page means that the page was read by or to you and that you agree to be in the study. If you have any questions before, after or during the study, ask the person in charge. If you decide to quit the study, all you have to do is tell your parent or the person in charge.

Signature of Participant

Date

Appendix E: Youth-Only CBT Intervention Details

| Session Number | Youth-Only Session | Parent-Only Session |
|--|---|--|
| 1: Introduction | <ul style="list-style-type: none"> - Build rapport and explain how time together will be structured - Talk about all different feelings people have and normalize feelings of anxiety - Explain the link between situations, thoughts and feelings - Construct fear hierarchy with youth and have the youth name his/her anxiety - Learn about STIC (Show That I Can) Tasks that will be assigned for homework | |
| 2: The F-step and Relaxation | <ul style="list-style-type: none"> - Teach child about muscle tension and the link between tension and somatic reactions to anxiety - Help child begin to learn how to recognize his/her own somatic reactions to anxiety and their natural progression (F-step= Feeling frightened?) - Practice deep belly breathing, stretching and progressive muscle relaxation with child - Discuss when relaxation may be useful | |
| 3: The E-step, Challenging Thoughts and Coping Skills | <ul style="list-style-type: none"> - Introduce the concept of self-talk and differentiate coping self-talk from anxious self-talk - Teach child to gather evidence when she/he is Expecting Bad Things to Happen (E-step) by asking “detective questions” - Discuss 7 common Thinking Traps - Explain that thinking positively is one coping skill but there are four more that he/she can try too: talking to someone, and doing something that is fun and distracting, soothing and relaxing, or that requires energy | <p>Parents will also have a meeting with the child therapist this week where the therapist will provide information about the treatment, give opportunity to discuss concerns, learn more about the initial conceptualization of the youth anxiety, and give suggestions for how to be involved.</p> |
| 4: The A-step and “5 P’s” of Problem Solving | <ul style="list-style-type: none"> - Review the F and E steps - Talk about how sometimes in addition to using coping thoughts, it is possible to take action to change the situation (A step = Attitudes & Actions that can help) | |

| | | |
|--|--|--|
| | <ul style="list-style-type: none"> - Introduce the 5 P's of problem solving with a game- Problem, Purpose, Plans, Predict/Pick, Put into Action/Pat self on back - Therapist models problem solving a simple situation - Child is invited to help problem solve in another neutral situation, followed by more anxiety provoking situations | |
| 5: The R-step and the creation of a Coping Character | <ul style="list-style-type: none"> - Talk about the R-step - rating his/her performance and rewarding himself/herself - Emphasize that rewards are not only for perfect jobs, but any time a child tries hard - Introduce "feelings barometer" to help child with self-ratings - Review FEAR plan and create a poster or card to help remember the steps - Practice FEAR plan in an imaginary situation - Review fear hierarchy and discuss upcoming exposure tasks - Reward youth for all the hard work so far | Parents will also have a meeting with the child therapist this week where the therapist will provide additional information about the second half of treatment and exposure tasks, provide an opportunity to discuss concerns and progress, learn more about situations in which their child becomes anxious, and offer other specific ways the parents can be involved in the second half of treatment. |
| 6-7: Practicing in Low Anxiety-Provoking Situations Using Exposure Tasks | <ul style="list-style-type: none"> - Review idea of progressing from learning new skills to practicing new skills - Practice Using imaginary exposure in low anxiety-provoking situations - Practice in-vivo exposure task in low anxiety-provoking situations - Plan exposure tasks for next session | |
| 8-9: Practicing in Moderately Anxiety-Provoking Situations Using Exposure Tasks | <ul style="list-style-type: none"> - Practice using imaginary exposure in moderately anxiety-provoking situations - Practice using in-vivo exposure in moderately anxiety-provoking situations - Plan exposure tasks for next session | |
| 10-11: Practicing in | <ul style="list-style-type: none"> - Practice using imaginary exposure in high anxiety-provoking situations | |

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| High Anxiety- Provoking Situations Using Exposure Tasks | <ul style="list-style-type: none"> - Practice using in-vivo exposure in high anxiety-provoking situations - Plan exposure tasks for next session - Briefly discuss end of treatment | |
| 12: End of treatment: Practicing in High Anxiety Situations, Completing Arts Project, and Terminating Treatment | <ul style="list-style-type: none"> - Conduct final exposure task in a high anxiety-producing situation - Have fun completing a final project such as making a poster, producing a “commercial” to show off progress/ advertise for the program, writing a script for a play, making a scrapbook, etc. - Review and summarize the treatment program and bring closure to therapeutic relationship | |

Appendix F: Youth CBT and Parent Component Intervention Details

| Session Number | Youth Session | Parent Session | Together |
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| <p>1: Introduction</p> | <ul style="list-style-type: none"> - Build rapport and explain how time together will be structured - Talk about all different feelings people have and normalize feelings of anxiety - Explain the link between situations, thoughts and feelings - Construct fear hierarchy with youth - Learn about STIC (Show That I Can) Tasks that will be assigned for homework | <ul style="list-style-type: none"> - Build rapport and outline the program - Explore parents' reactions to their child's anxiety and validate their experiences - Find out what they have tried in the past and how it has worked - Construct fear hierarchy with parent about child's anxiety - Explain STIC tasks and the function of homework - Answer any questions | <ul style="list-style-type: none"> - Child tells parent how they learned to recognize feelings in others, parent can add to the list started by child - Parent and child together fill out a situation - thought - feelings chart about a time when the child felt really great - Compare the parent and child fear hierarchies and try to come to consensus on a new hierarchy - Emphasize the team approach to beating the child's anxiety |
| <p>2: The F-step and Relaxation</p> | <ul style="list-style-type: none"> - Teach child about muscle tension and the link between tension and somatic reactions to anxiety - Help child begin to learn how to recognize his/her own somatic reactions to anxiety and their natural progression (F-step= Feeling frightened) - Practice deep belly breathing, stretching and progressive muscle relaxation with child - Discuss when relaxation may be useful | <ul style="list-style-type: none"> - Discuss child's most common somatic complaints and see if parent can identify what usually comes first - Teach parents correct breathing techniques so they can coach their child - Introduce relaxation script(s) - Make a list of 3 times/situations that the parent will practice relaxation with the child in the coming week | <ul style="list-style-type: none"> - Have parent share own somatic symptoms of anxiety - Allow child to share picture of his/her own perceived somatic symptoms, invite parent to add more that he/she has come up with - Practice breathing and relaxation all together |

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| <p>3: The E-step, Challenging Thoughts and Coping Skills</p> | <ul style="list-style-type: none"> - Introduce the concept of self-talk and differentiate coping self-talk from anxious self-talk. - Teach child to gather evidence when she/he is Expecting Bad Things to Happen (E-step) by asking “detective questions” - Discuss 7 common Thinking Traps - Explain that thinking positively is one coping skill but there are four more that he/she can try too: talking to someone, and doing something that is fun and distracting, soothing and relaxing, or that requires energy | <ul style="list-style-type: none"> - Brainstorm detective questions that they can use to help their child avoid getting anxious - Teach them how to model positive self-talk and practice with a role play - Discuss 7 common Thinking Traps and ask parents to identify which traps they think their child is most prone to - Give parent a copy of the “Coping Tool Box” list and ask them to come up with suggestions for their child for each skill besides “think positively” | <ul style="list-style-type: none"> - Practice evaluating anxious thoughts by role-playing a typically anxiety provoking situation. The parent can help the child ask the detective questions and come up with a coping thought. - Optional activity: Suggest that they make a physical coping ideas box with their child. Together they can write each new idea on a different color index card (corresponding to each of the 5 skills) and put it into the box so it is there to use when the child is feeling anxious or upset and could use an idea. |
| <p>4: The A-step and “5 P’s” of Problem Solving</p> | <ul style="list-style-type: none"> - Review the F and E steps - Talk about how sometimes in addition to using coping thoughts, it is possible to take action to change the situation (A step = Attitudes & Actions that can help) - Introduce the 5 P’s of problem solving with a game- Problem, Purpose, Plans, Predict/Pick, Put into Action/Put self on back - Therapist models problem solving in a simple situation (ie: can’t find your shoes in the house and it’s time to go) - Child is invited to help | <ul style="list-style-type: none"> - Check in about relaxation and coping and see if the parent(s) have any questions - Ask about any changes to the fear hierarchy or any new situations that are causing anxiety - Introduce the problem solving steps with the same game that the child is doing so that parent and child can compare solutions later - Emphasize that when helping their child problem solve, parents should remain neutral about solutions during the Plans step and not | <ul style="list-style-type: none"> - Child and Parent review the 5 P’s and talk about all the different plans they came up with for the game at the beginning. - With the guidance of both therapists, child and parent problem solve an anxiety provoking situation that has occurred at home |

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| | <p>problem solve in another neutral situation, followed by more anxiety provoking situations</p> | <p>evaluate any suggestions until the Predict/Pick step</p> <ul style="list-style-type: none"> - Also encourage parents to allow their child to choose a solution even if they themselves don't think it is best, or feel it will not solve the problem. | |
| <p>5: The R-step and the creation of a Coping Character</p> | <ul style="list-style-type: none"> - Talk about the R-step - rating his/her performance and rewarding himself/herself - Emphasize that rewards are not only for perfect jobs, but any time a child tries hard - Introduce "feelings barometer" to help child with self-ratings - Review FEAR plan and practice FEAR plan in an imaginary situation - Review fear hierarchy and discuss upcoming exposure tasks - Reward child for all the hard work so far | <ul style="list-style-type: none"> - Talk about what rewards system (if any) is in place currently in the home - Remind parents that verbal praise can go a long way for children - Review FEAR plan - Review youth's fear hierarchy and begin to plan for exposure sessions | <ul style="list-style-type: none"> - Review session and parent/child ideas for how to reward home exposure practices - Review hierarchies all together and discuss plan for next session |
| <p>6-7: Practicing in Low Anxiety-Provoking Situations Using Exposure Tasks</p> | <ul style="list-style-type: none"> - Review idea of progressing from learning new skills to practicing new skills - Practice using imaginary exposure in low anxiety-provoking situations - Practice in-vivo exposure task in low anxiety-provoking situations - Plan exposure tasks for next session | <ul style="list-style-type: none"> - Review of forming fear hierarchies - Review FEAR steps - Plan low-anxiety in-vivo exposures for youth outside of therapeutic setting | <ul style="list-style-type: none"> - Youth shows parent what exposures he/she worked on during session with the therapist - Discuss at-home exposures to practice for the week |
| <p>8-9:</p> | <ul style="list-style-type: none"> - Practice using imaginary | <ul style="list-style-type: none"> - Discuss any difficulties | <ul style="list-style-type: none"> - Youth shows parent |

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| Practicing in Moderately Anxiety-Provoking Situations Using Exposure Tasks | exposure in moderately anxiety-provoking situations - Practice using in-vivo exposure in moderately anxiety-provoking situations - Plan exposure tasks for next session | or challenges with practice exposures at home - Plan at-home exposure practice with the facilitator for moderate anxiety exposures | what exposures he/she worked on during session with the therapist - Discuss at-home exposures to practice for the week |
| 10-11: Practicing in High Anxiety-Provoking Situations Using Exposure Tasks | - Practice using imaginary exposure in high anxiety-provoking situations - Practice using in-vivo exposure in high anxiety-provoking situations - Plan exposure tasks for next session - Briefly discuss end of treatment | - Discuss any difficulties or challenges with practice exposures at home - Plan at-home exposure practice with the facilitator for high anxiety exposures | - Youth shows parent what exposures he/she worked on during session with the therapist - Discuss at-home exposures to practice for the week |
| 12: End of treatment: Practicing in High Anxiety Situations, Completing Arts Project, and Terminating Treatment | - Conduct final exposure task in a high anxiety-producing situation - Have fun completing a final project such as making a poster, producing a “commercial”, writing a script for a play, making a scrapbook, etc. - Review and summarize the treatment program | - Discuss any concerns about continuing skills and techniques learned in the program | - Summarize the treatment the treatment program - Bring closure to the therapeutic relationship |

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