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An Adaptation of the Coping Cat Program: The Successful Treatment of a 6-Year-Old Boy With Generalized Anxiety Disorder

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Abstract

Generalized anxiety disorder (GAD) during childhood is a common condition with negative implications. This case study describes the successful cognitive-behavioral treatment of a 6-year-old boy with excessive worry and sleep disturbances. Because of the patient's age, treatment methods were adapted for an early reader. The frequency and intensity of his symptoms (e.g., physiologic arousal, apprehensive expectations, sleep disturbances) were measured over the course of treatment and at 3 and 7 years after treatment. Recommendations are provided for clinicians and students who aim to treat young children with GAD. The results of this intervention suggest a durable and meaningful reduction in GAD-related symptoms.

I Theoretical and Research Basis for Treatment

Generalized anxiety disorder (GAD) is a highly prevalent psychiatric disorder that is associated with cognitive distortions and impaired daily functioning. Current estimates indicate that up to 183 million people worldwide suffer from GAD, with an average onset age of 21 years (Katzman & Tsirgielis, 2011). Not only is this disorder common among the general population, Donovan and Spence (2000) determined that GAD is also one of the most frequently diagnosed disorders in children and adolescents. While this disorder is usually seen in 3% of children, GAD may affect as many as 10.8% of adolescents (Albano, Chorpita, & Barlow, 2003). When comparing adolescent male and female patients, research indicates that females are more commonly diagnosed with GAD than are males (McGee et al., 1990). Although girls are more likely than boys to suffer from any anxiety disorder (Costello, Egger, & Angold, 2004; McGee et al. 1990), when examining specific anxiety diagnoses, girls and boys appear to experience similar frequencies (Bittner et al., 2007) until adolescence, when males become less likely to be diagnosed with anxiety disorders (Kendall, Pimentel, Rynn, Angelosante, & Webb, 2004).

According to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; American Psychiatric Association [APA], 2000), GAD is characterized by excessive, constant, and uncontrollable anxiety and worry over a period of at least 6 months. This type of anxiety is not focused on a single event or object but rather is widespread over multiple events or experiences. Resulting symptoms of GAD include fatigue, irritability, restlessness, trouble focusing, and tension, all of which can be exacerbated by stress. GAD demonstrates comorbid presentations with a number of disorders, specifically those related to depression, panic disorder, phobias, and substance abuse (APA, 2000). Having a diagnosis of GAD also increases the risk of additional psychological stress later in life, including the fact that the majority of patients with GAD also experience at least one other clinically significant disorder at some time in their lives (Wittchen, Zhao, Kessler, & Eaton, 1994).

Recent research indicates that children and adolescents with GAD are more negatively affected by stressful life events than children without a psychiatric diagnosis (Allen, Rapee, & Sandberg, 2008). Children with GAD are also more likely to experience parental overprotection and report more threatening experiences and loss in their lifetimes than children without GAD (Nordahl, Wells, Olsson, & Bjerkeset, 2010). Furthermore, childhood GAD has been associated with adolescent conduct disorder in boys and girls, and girls with GAD appear more likely to develop substance use disorders as adolescents (Bittner et al., 2007). In addition, children suffering from chronic anxiety often continue to have difficulties as adolescents and adults (Woodward & Fergusson, 2001). Longitudinal data suggest that adolescents with anxiety are more likely than those without anxiety to be diagnosed with depression, abuse drugs, and alcohol, and fail to reach their educational potential (Woodward & Fergusson, 2001).

A number of theoretical models exist to explain the development and maintenance of GAD. According to Barlow (2000), anxiety disorders are the result of "triple vulnerability" (p. 1252), which includes heritability, temperament, and psychosocial stressors. Borkovec, Alcaine, and Behar's avoidance theory of anxiety (2004) posits that worry is negatively reinforced as it serves to suppress somatic experiences and anxious imageries. Indeed, evidence suggests that worry may serve to distract individuals from more distressing emotional topics or that it exists in a superstitious manner to lessen the probability of the occurrence of bad events (Borkovec & Roemer, 1995). When worry serves the role of cognitive avoidance, it prevents emotional processing and maintains, or even strengthens, the presence of anxiety for the individual (Borkovec et al., 2004). Cognitive avoidance of more emotional distress may relate to a multitude of domains, but particularly to interpersonal difficulties, as interpersonal circumstances have been found to be of considerable concern to individuals with GAD (Borkovec et al., 2004). Expanding on Borkovec's model, Mennin's emotional dysregulation model of GAD (Mennin, Turk, Heimberg, & Carmin, 2004) hypothesizes that individuals have difficulties with understanding internal emotional states and may misinterpret ambiguous emotions as frightening. Evidence suggests that intensity of emotion and poor emotional regulation strategies, such as the inability to self-soothe, predict the presence of GAD (Mennin, McLaughlin, & Flanagan, 2009). GAD is commonly associated with negative cognitive coping strategies that serve to maintain anxiety, such as rumination, self-blame, and catastrophizing (Legerstee, Garnefski, Verhulst, & Utens, 2011). Clients with GAD also tend to perceive themselves as having little control over their negative thought processes, which is ultimately reinforced as time passes, and children continue to experience negative life events (Albano et al., 2003). The cognitive-behavioral model of GAD holds that the following components maintain and aggravate GAD symptoms: intolerance of uncertainty, positive beliefs about worry, poor problem-solving skills, and cognitive avoidance (Dugas & Koerner, 2005).

A variety of approaches exist for treating GAD, including but not limited to pharmacotherapy, mindfulness-based therapy, exposure-based therapy, cognitive-behavioral therapy (CBT), or some combination of these interventions. Medications commonly prescribed to treat GAD include selective serotonin-reuptake inhibitors (SSRIs) and serotonin-noradrenaline reuptake inhibitors (SNRIs). Other options include buspirone, pregabalin, imipramine, and benzodiazepines; yet when used alone, medications for GAD have proven to be less effective and less durable when compared with interventions that have CBT-based components or when used in combination with effective psychosocial treatments (Walkup et al., 2008). Moreover, using medications for GAD, especially for young children, can have undesirable side effects, such as headaches, nausea, insomnia, and somnolence (Katzman & Tsirgielis, 2011). Mindfulness therapy is cognitively based, focuses on educating clients about anxiety symptoms, and emphasizes the fact that some of the

thought patterns associated with GAD are distortions that serve to maintain and exacerbate the anxiety. This method has proven effective in relieving anxiety and depression symptoms in clients with GAD, especially those experiencing residual effects from earlier treatments (Kim, Lee, et al., 2009). Exposure-based therapy involves familiarizing an individual with the feared stimulus, using either imaginal or in vivo experiences, as a way of ameliorating or eliminating the anxiety through extinction (Silverman & Kurtines, 2005). These techniques have also been shown to be effective with children suffering from anxiety, specifically when using graded exposure rather than implosion or flooding (Silverman & Kurtines, 2005). Although a number of effective treatments currently exist, CBT continues to be the treatment of choice even when other therapies are used in conjunction (e.g., medication), given that practitioners are able to address the key symptoms (distorted thoughts, maladaptive behaviors) associated with GAD (Walkup et al., 2008).

CBT techniques have proven to be effective when treating GAD, with posttreatment reports from parents, teachers, and clients demonstrating overall client improvement (Kendall, Hudson, Choudhury, Webb, & Pimentel, 2005). Indeed, individual CBT for the treatment of childhood anxieties has been deemed “probably efficacious” in addressing anxious cognitions and children’s subjective experience of anxiety as many studies have demonstrated CBT’s superior outcomes compared with waitlist control conditions (Davis, May, & Whiting, 2011). CBT has indicated statistically and clinically significant improvements, as Silverman, Pina, and Viswesvaran (2008) found that as many as 62% of children and adolescents treated with CBT for anxiety had changed their diagnosis at post-treatment. Although the studies included in the review contained substantial variability, treatment effects ranged from 46% to 76% after variability attributed to sampling error was removed, and 95% of the studies indicated at least 46% of improvement following involvement in CBT (Silverman et al., 2008). Individual CBT has demonstrated moderate to large effect sizes, with studies with children 13 years old and younger yielding small to medium effects (Reynolds, Wilson, Austin, & Hooper, 2012). More specifically, Hirshfeld-Becker and colleagues (2010) found that 59% of their sample of 4 to 7-year-olds was diagnosis free following CBT yielding medium to large effect sizes on outcome measures. Similarly, Ginsburg and colleagues (2011) indicated that a younger age predicted more remission across combination, medication only, and CBT conditions, with combination conditions yielding higher effect sizes for all participants.

CBT is designed around the belief that clients view everyday situations as threatening (Klein, 2009), so it incorporates the training of clients to recognize anxiety symptoms and utilize helpful strategies to control that anxiety. Among the techniques used within CBT are worry exposure, cognitive restructuring, and thought journals (Walkup et al., 2008). Worry exposure, in which the client is asked to think purposefully about threatening situations, allows the client to realize that he or she has direct control over his or her thought processes (Dugas & Koerner, 2005). Scheduled worry exposure, or worry time, also allows the client to express the worry that he or she is compelled to feel but to only do so for a certain amount of time each day, which eventually allows the client to habituate to his or her worries (Hoyer et al., 2009). Cognitive restructuring consists of strategies that aim to reappraise and replace intrusive maladaptive thoughts to break the cycle of repetitive and excessive self-defeating rumination that exacerbates anxiety (e.g., M. T. Kim, Rosenberg, & Rosenberg, 2009). Thought journals allow the client to keep worry-monitoring records, which give the client a better understanding of triggers to his or her anxiety as well as the cognitive distortions that maintain that anxiety (Coles & Heimberg, 2005). The “Coping Cat” program for anxious youth (Kendall, Kane, Howard, & Siqueland, 1990) is a CBT approach that was developed for use with young children with anxiety disorders. Kendall (1994) reported that the Coping Cat program is associated with positive outcomes for the treatment of childhood anxieties, given that 64% of those treated with the Coping Cat protocol no longer met diagnostic criteria following the

manualized treatment. In a more recent randomized control trial, 71.28% of treatment participants no longer had their primary anxiety disorder diagnosis and 53.19% no longer met criteria for an anxiety diagnosis at all following involvement in the Coping Cat program (Kendall et al., 1997).

Family-based intervention is viewed as an important component in the successful treatment of childhood GAD (Barrett, Dadds, & Rapee, 1996). While the findings are equivocal for rates of improvement when families are directly involved in treatment (e.g., S. Reynolds et al., 2012), CBT does appear to be especially helpful for children's outcomes in strongly connected or attached families (Victor, Bernat, Bernstein, & Layne, 2007). Furthermore, the inclusion of a parent component in treatment has indicated some positive outcomes for anxious children with at least one anxious parent, but not for anxious children without an anxious parent (Cobham, Dadds, & Spence, 1998). In another study, parental psychopathology, stress, and adaptability were not related to success in family-based CBT of children in a sample of children with features of a *DSM-IV* (4th ed.; APA, 1994) anxiety disorder (Victor et al., 2007). However, family characteristics such as family cohesion influenced the treatment outcomes when the family was involved in treatment compared with when they were not involved (Victor et al., 2007). Family and child-based CBT appear superior to family education, with family-based CBT showing more improvement and durability when both parents meet the criteria for anxiety (Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008).

2 Case Introduction

At initial assessment, "Jake" (not his real name) was a 6-year-old, non-Hispanic Caucasian male elementary school student who was referred for treatment by his pediatrician and his parents. This was Jake's first experience with psychological treatment. According to Jake and his parents, his anxiety was originally noted when he experienced sleep disturbances and a pattern of excessive worry and pervasive apprehension several months (>6) before seeking consultation. He often woke several times during the night to ruminate about innocuous interactions with classmates. For example, Jake's parents reported that he woke one evening crying and afraid that he had hurt a friend when he brushed past the friend at school earlier in the day. Jake woke several additional times that night, and with each awakening, he was increasingly concerned about his friend to the point that Jake was certain that the friend was hospitalized with a broken leg because of Jake's mistake of brushing past him in the hallway. Jake and his parents reported a number of impairments associated with his anxiety beyond his disturbed or limited sleep. He would report having difficulty controlling the worry during waking hours as well. When his worries were expressed to his parents, he would require extensive reassurance, which was not typically successful at assuaging his anxiety. Some of the associated impairments included physical symptoms (e.g., fatigue, restlessness), disruption of family routine, occasional clinginess, and periodic avoidance of play dates for fear that he might injure someone. Prior to the referral for professional treatment, Jake and his parents attempted to address the symptoms at home. For example, Jake's parents began playing soothing music in his room to help him to sleep. After the above incident, Jake's parents reassured him that his friend was safe and healthy, and they also contacted the other child's parents and school personnel to confirm that the other child was not injured. When Jake and his parents realized that their home remedies were not effective after several months, they sought professional treatment. The Institutional Review Board at the researchers' university approved the write up and dissemination of this study for research and training purposes.

3 Presenting Complaints

During the initial evaluation, Jake reported chronic, pervasive worries across

domains (home, school, social settings) that he had trouble controlling as well as significant difficulties with sleep. The symptoms were present for at least 6 months. Jake acknowledged that some of his sleep troubles were due to interactions with his older brother (e.g., they would “annoy” each other), with whom he shared a room. He stated that he had bad dreams about once a week. However, difficulties with sleep (going to sleep, early morning awakenings) appeared related to his pattern of uncontrolled worry about a number of issues.

Jake and his family also reported multiple occasions where he ruminated about scenarios that were unlikely to occur. His parents stated that they were repeatedly unable to alleviate his fears. Some examples of Jake’s worries included the possibility that he had accidentally harmed a friend at school, that a favorite (cloth) toy might possibly “melt” in the car, that a bird might fly into Jake’s bedroom window and be injured or die (the family reported that this had never happened before), and that Jake might somehow end up shopping without an adult and be injured by school bullies. Other examples of pervasive worry and apprehensive expectations include times when he appeared to be relaxing (e.g., in a hammock); yet when asked what he was thinking about, he described worrying about what he would do if the tree supporting the hammock would “fall down” on top of him or how he might escape if the fallen tree would pin down his foot. Moreover, Jake’s reactions to these worries were often excessive and exaggerated. For example, despite being reassured that his concerns were either unlikely or unreasonable, he continued to behave in a notably fearful fashion (e.g., screaming, shaking, crying, sucking his thumb).

4 History

Jake is the younger of two children. Jake lives with his older brother and his married parents. Both of his parents have advanced degrees, and the mother remained at home full time with the children. The family history was positive for anxiety disorders across at least four maternal generations. Jake’s parents reported that pregnancy and delivery were normal. In addition, Jake reached many of his developmental milestones earlier than expected. Jake’s medical history was generally unremarkable aside from well-managed asthma for which he carried an inhaler. His mother described his early temperament as “fun” and one who made friends and interacted with others easily.

As discussed above, Jake’s sleep was often disturbed by ruminations regarding his interactions from the day. Due to these nightly disruptions, Jake began to nap for increasing intervals each afternoon. His mother reported that he napped after school and was tired by bedtime. Each night, he woke up crying and shaking with fear that he had hurt a classmate or family member. His parents would soothe him, reporting that it often took him an hour to fall back to sleep. This cycle was repeated 2 or 3 times each night. In addition to ruminating about interactions with classmates, Jake began to worry even more excessively and occasionally avoided play dates for fear that he might somehow injure his friends. He also experienced physical symptoms (e.g., fatigue, restlessness) and would require excessive reassurance from his parents. Jake’s primary reason for seeking treatment was to address his pattern of chronic persistent worry that occurred across domains, time, and circumstances. As a result of his excessive apprehension and worry, he began to experience decreased sleep, a substantial disruption of his family routine, and social impairments (i.e., diminished involvement in social activities).

5 Assessment

During the first two sessions, Jake and his parents participated in a semistructured clinical interview adapted from the Structured Clinical Interview for *DSM* (Spitzer, Williams, Gibbon, & First, 1992). Jake also participated in a semistructured interview using the *Kiddie–Schedule for Affective Disorders and Schizophrenia in School Aged Children* (SADS; Puig-Antich & Chambers, 1978), which was unremarkable.

According to the data from both semistructured interview formats, Jake met the *DSM-IV-TR* (APA, 2000) criteria for GAD, given his extended and significant history of worry, apprehensive expectations, and physical symptoms of at least 6 months or longer with associated impairments in sleep, family, and social functioning. He regularly reported difficulty in controlling the worry, experienced physiological symptoms as a result (e.g., fatigue, restlessness), and required extensive reassurance from his parents. Although there was some evidence of other anxiety symptoms (occasional clinginess, rumination about certain situations and circumstances, fear of being seen by bullies in Wal-Mart), the overall clinical picture was not consistent with primary diagnosis of separation anxiety, a specific phobia, obsessive compulsive disorder, or social anxiety. As described above, the nature of Jake's impairments and the implications for family functioning were significant. For instance, his parents were unable to assuage his anxiety about common everyday events (e.g., brushing past a child in the hallway at school would escalate in his mind to a belief that he actually caused a life-threatening injury) even in the face of contradictory evidence the next day (the child was fine). These patterns and symptoms clearly interfered with daily living. Jake's sleep, his peace of mind, and his family's ability to carry on a normal state of affairs during waking hours was impacted directly by GAD.

Supplementing the interview data, the Parent Report Scale of the Behavioral Assessment System for Children (BASC; C. R. Reynolds & Kamphaus, 1992) was completed at pretreatment, at post-treatment, and at 1 (booster), 3, and 7 years post-treatment. The BASC-2 was used for later administrations (C. R. Reynolds & Kamphaus, 2004). The BASC is a multidimensional scale of behavioral and emotional functioning for children between the ages of 4 and 18 years old. The Parent Report Scale includes items regarding the child's adaptive and problem behaviors. Each of the items consists of four choices: N (the behavior in question never occurs), S (the behavior sometimes occurs), O (the behavior often occurs), and A (the behavior almost always occurs). Administration of the BASC is straightforward and usually takes between 10 and 20 min to complete. In addition to the adaptive scales (e.g., social skills, adaptability, and leadership) and composite scales (e.g., internalizing, externalizing, behavioral symptoms index), the BASC produces scores on the following 11 clinical subscales: Aggression, Anxiety, Attention, Atypical Behaviors, Conduct Problems, Depression, Hyperactivity, Leadership, Social Skills, Somatic Complaints, and Withdrawal.

Based on separate reports completed by each parent, Jake evidenced clinically significant (T -score ≥ 70) symptoms for atypicality ($T = 84$, father) and clinically elevated (T -score = 60-69) levels for anxiety ($T = 65$, father) and somatization ($T = 71$, father). In addition, both parents reported elevated levels for the composite scores for internalizing problems ($T = 72$, father) and the behavioral symptoms index ($T = 79$, father). Both parents reported average ($T = 41$ -59) composite

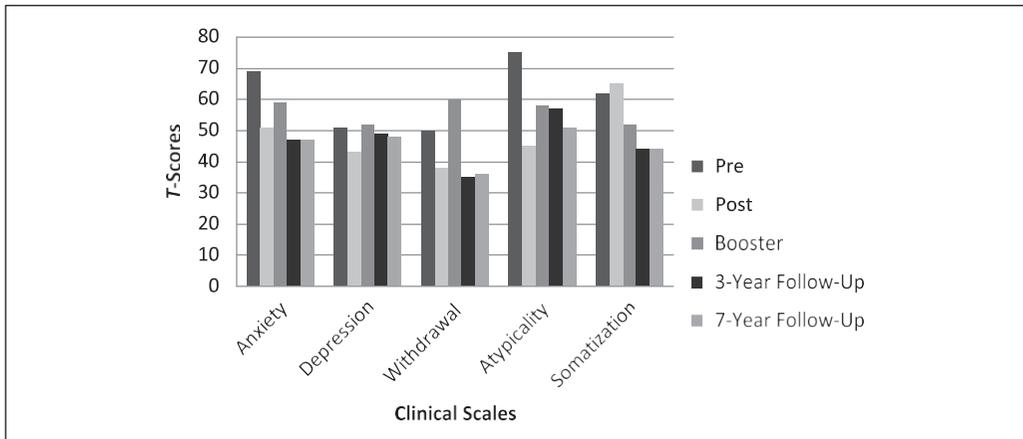


Figure 1. Maternal BASC *T*-scores at five assessment time points

Note: *T*-scores = <60 within normal limits, 60 to 69 at risk, and ≥70 clinically significant.

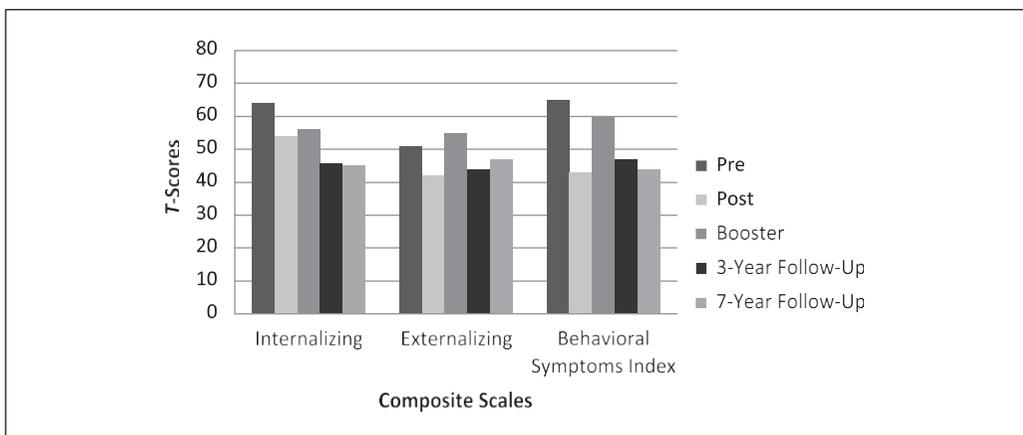


Figure 2. Maternal BASC composite *T*-scores at five assessment time points

Note: *T*-scores = <60 within normal limits, 60 to 69 at risk, and ≥70 clinically significant.

scores for externalizing problems ($T = 59$, father), and the adaptive domains (e.g., social skills) were in the normal range. Although the agreement coefficient between Jake's parents was quite high (.80), suggesting that the profiles were similar in both shape and degree with respect to their observations of Jake's behavior, his parents differed in their reports on several subscales, with his father reporting higher scores overall. Jake's father reported elevated concerns when compared with his mother, particularly in the areas of attention problems ($T = 71$, father; $T = 56$, mother), aggression ($T = 62$, father; $T = 48$, mother), depression ($T = 65$, father; $T = 51$, mother), hyperactivity ($T = 73$, father; $T = 63$, mother), and withdrawal ($T = 66$, father; $T = 50$, mother). See Figures 1 and 2 for maternal BASC ratings. Only maternal ratings are reported in the figures, as paternal BASC scores were obtained only at initial assessment due to Jake's father's work schedule.

Overall, the profiles for the original assessment were consistent with the prominent components of GAD (e.g., rumination, somatic complaints, physiological arousal, and sleep difficulties). The elevations in the Atypicality subscale were also consistent with a child who tended to ruminate about daily hassles and interpersonal exchanges. Despite these clinical elevations, Jake was observed to be a socially adept, competent boy with strengths in leadership and generally well-developed adaptive skills.

6 Case Conceptualization

Given the existing literature on anxiety that supports treatment based on cognitive-behavioral principles, Jake's treatment plan utilized the Coping Cat Program for anxious youth (Kendall et al., 1990). This program was designed to teach patients between the ages of 8 and 13 years coping skills to manage and reduce their anxiety. The clinician gave Jake his own copy of the *Coping Cat Workbook* (Kendall, 1992) to allow him to work at home between sessions. In addition to the specific treatment procedures outlined in the Coping Cat Program, several broad CBT components believed to be necessary for effective intervention were utilized. As outlined by Velting, Setzer, and Albano (2004), the six elements included psychoeducation, somatic symptom identification and management, cognitive restructuring, problem solving, exposure, and relapse prevention. Given Jake's young age, active parental involvement was necessary to help him implement treatment (Velting et al., 2004). To this end, approximately 25% to 50% of in-session treatment time included one or both parents, typically the mother. The work with the parents was designed to identify factors that might be relevant in the maintenance of Jake's anxiety such as inadvertent negative reinforcement of anxious behaviors by providing nurturing attention when Jake was distressed. When anxiety maintaining behaviors were noted, a revised parental management strategy was developed, such as a planned ignoring or differential reinforcement of other (DRO) behavior paradigm. Additional intersession contact via phone or email occurred at the request and consent of the parents to facilitate adherence to and integrity of the treatment plan and the supporting materials.

7 Course of Treatment and Assessment of Progress

Jake's active phase of treatment consisted of 10 sessions over a 4-month period. Each session lasted between 60 and 75 min, and regularly included parent consultation time to develop, implement, and discuss the progress of supportive parenting strategies to treat Jake's anxiety. For instance, we discussed how to reinforce alternative coping strategies during stressful times (around bedtime) and how to avoid the inadvertent negative reinforcement of worry behavior (e.g., planned ignoring). As discussed above, structured and unstructured evaluations were conducted throughout treatment. Adjustments were made when necessary to support the best outcome for Jake and his family. Throughout treatment, there were several phone and email contacts to discuss progress, concerns, or revisions to the treatment plan with Jake and his parents. The majority of these intersession communications involved reassurance or clarification of the treatment guidelines and were psychoeducational in nature.

During the second session, Jake and his parents discussed how they would measure the effectiveness of treatment, and they identified the family's treatment goals as better sleep for Jake, less worry, and an increased willingness to see his friends. Jake was also provided with a Subjective Unit of Distress Scale (SUDS) in the form of a numeric thermometer. He was asked to assess his level of distress (1-4, with higher numbers denoting greater distress) periodically throughout treatment. Jake described each level in his own words (1 = *relaxed, cozy, safe, good*, 4 = *worried, hard to sleep, really bad*). Between the second and third sessions, Jake asked his mother to help him to expand the scale from 1 to 5 to more clearly describe his experiences. Because of his limited reading skills, Jake and his mother adapted the thermometer in light of this developmental concern by adding pictures to this number representation, allowing him to more easily associate each level with a specific event (1 = *deciding what to be for Halloween*, 5 = *concern that he might see the*

school bullies at a local store). The adapted SUDS thermometer gave Jake, the clinician, and his parents a common language to discuss his feelings throughout treatment.

One important component of Jake's treatment was learning to relax. Using the Coping Cat protocol (Kendall et al., 1990) as a guide, the clinician offered examples of how to relax such as pretending to be a robot (tense) or a rag doll (relaxed). During the initial sessions, Jake believed that relaxation required the person to be asleep. Thus, it became necessary to help him modify his assumption to promote the possibility of wakeful relaxation. An opportunity to illustrate this concept happened rather surreptitiously. During one particular session, the clinician observed Jake's interest in a Batman action figure at the clinic and suggested to Jake that Batman was "both strong and relaxed." This phrase appeared to immediately help Jake think of times when he could be strong and relaxed like Batman. In subsequent sessions, Jake was able to call up this image through the use of simple self-reminders (verbally, visually). He also used these reminder techniques in-between sessions, given the apparent efficacy of thinking about or "seeing" the image of Batman (in his mind's eye) during times when he was distressed or anxious. In essence, Batman became his cue to utilize his adaptive coping skills.

There were other adaptations of the Coping Cat program worthy of mention. Very early in treatment, in an effort to better understand Jake's perspective as to whether his anxiety was excessive, the clinician asked Jake, "How much of your brain do you want to devote to worrying" (combined with opposing hand gestures representing space)? That is, just as the Batman theme and the associated cognitive restructuring elements seemed to resonate with Jake ("I can be strong and relaxed like Batman"), he also was able to conceptualize the impairing levels of anxiety in his mind as "taking up too much space." His modification was to purposely limit the amount of space in his mind that his worries occupied. Thus, during sessions when Jake was exposed in vivo to his anxiety symptoms (typically via a verbal cue), he would implement a behavioral procedure (opposing hands closing the space in between) to remind and reinforce the modification (e.g., "I can take deep breaths in and out"). In between sessions, Jake and his mother crafted a book describing these methods of relaxation when he felt anxious or nervous. His mother used a digital camera to take photographs of Jake actually doing the items on his list ("I can take a deep breath in and out," "I can read a story with my dad," "I can think about Batman who is strong and relaxed"). Jake and his mother reported that this book quickly became a favorite bedtime story. Jake also purchased a small, pocket-sized Batman that he carried during stressful times to serve as a tangible reminder of the skills he was learning to cope with his anxiety.

Unfortunately, we were unable to obtain additional BASC scores from Jake's father due to his work schedule. Based on post treatment maternal BASC scores, Jake experienced a substantial reduction in his GAD symptoms. His post treatment anxiety, depression, withdrawal, and atypicality scores were substantially improved and were all within the normal range. While his somatization scores continued to be elevated, Jake and his mother reported significant improvements in his sleep patterns with no disruption in family routines and no tendency for Jake to avoid social activities. At the booster session, approximately 1-year post-treatment, Jake's mother reported that he had recently spent the night at a friend's house and slept with no difficulty. Additional follow-up maternal assessments at 3 and 7 years post-treatment indicated that Jake no longer met the criteria for clinical levels of anxiety. See Figures 1 and 2 for maternal BASC *T*-score summaries across treatment. In addition, Jake's self-report obtained at the 7-year followup indicated symptom experiences that fall within the average range (see Figure 3).

8 Complicating Factors

Perhaps the most significant complicating factors in Jake's active treatment were his age and limited reading skills. Although Jake seemed to enjoy the story of how Scaredy Cat became

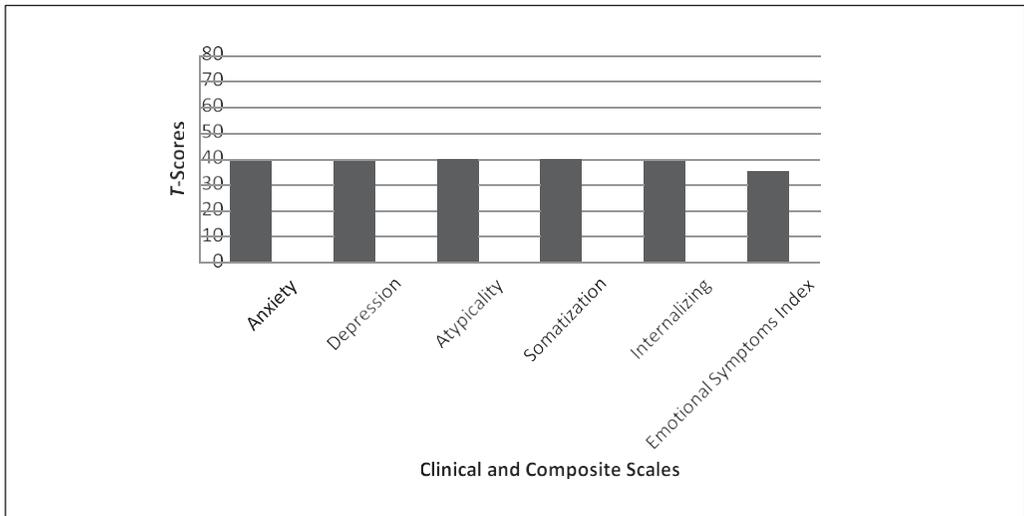


Figure 3. Self-reported BASC T-score at 7-year follow-up

Note: T-scores ≤ 60 within normal limits, 60 to 69 at risk, and ≥ 70 clinically significant.

Coping Cat (Kendall et al., 1990), his young age made the reading and writing portions of this program difficult. These limitations also prevented the administration of baseline and posttreatment self-report assessments. However, by adapting the Coping Cat protocol (Kendall et al., 1990) and the SUDS ratings to match his developmental level, Jake was able to benefit from these intervention elements despite his limited reading ability.

Although Jake was able to revise his tendency to distort or attribute the actions of others to himself, he almost ceased taking responsibility for himself and his actions several weeks after treatment ended, even though this would have been an appropriate attribution. Jake began acting out at school and at home as he struggled to find an appropriate balance between these attribution styles. During this posttreatment period, he often fought with his family and friends, sometimes hitting them. Although challenging for the family, this behavior seemed developmentally appropriate given Jake's young age. Ultimately, the clinician and parents offered consistent messages about finding a balance between personal accountability and excessive self-blame, which proved to be successful.

9 Access and Barriers to Care

Jake was fortunate to have access to psychological treatment through his parents' insurance plan. His parents were willing and able to pay out of pocket for the co-pay and the portion of treatment that was not covered by insurance. Moreover, Jake benefited from the opportunity to work with a clinician experienced in providing treatment specifically for children, which can often be limited in rural areas similar to the area in which Jake and his family reside.

In addition, families may desire reassurance or clarification between sessions, especially at the beginning of treatment. Clinicians should recognize that while this communication may not be reimbursed by many insurance plans, intersession

contact may be critical to the successful treatment for the child. To achieve this type of continuity in light of these barriers, the creative efforts of clinicians and their families are often required.

10 Follow-Up

Jake's mother provided updated information approximately 4 months, 8 months, 3 years, and 7 years after the active phase of treatment. Jake returned for six additional sessions to address a recurrence of anxiety symptoms approximately 2 months after treatment. Jake's primary complaint during the additional treatment trial was a recurrence of chronic, persistent worry. In addition to reinitiating some of the effective techniques from the initial treatment trial (evoking Batman imagery, cognitive restructuring, exposure to worry in session, breathing exercises), Jake was encouraged to create nightly "worry time" (i.e., no more than 1 hr) to help him contain his anxieties. He also constructed a worry box in which he was instructed to place his written fears as they emerged (which were reviewed during face-to-face sessions). He would then bring his written worries to the sessions to create opportunities for exposure, cognitive restructuring, and adaptive coping in real time. The use of previously efficacious behavioral techniques coupled with the worry time interventions were successful in helping Jake to reduce his anxiety to nonclinical levels after six sessions. Jake also returned for one booster session approximately 6 months later to address the emergence of subclinical externalizing symptomatology. Overall, Jake was seen 17 times over a 15-month period. Follow-up maternal (Figure 2) and self-report evaluations (Figure 3) at 3 and 7 years post-treatment indicated that Jake was no longer experiencing clinically elevated symptoms on the BASC. These data suggest that the changes Jake made were durable and that he was able to cope effectively with his concerns over an extended period of time.

Interestingly, at 7 years post-treatment, Jake's mother contacted the clinician to report that although sleep disturbances and rumination had become rare occurrences for Jake overall, he seemed more likely to exhibit these symptoms when he was physically sick (only typical childhood illnesses reported), such that Jake's family felt that these symptoms could predict a coming illness. Although research has documented the comorbidity of GAD and chronic illness in children (Chavira, Garland, Daley, & Hough, 2008), future work investigating the reemergence of anxiety symptoms in concomitance with intermittent illness could be useful in helping families to maintain the long-term remission of anxiety symptoms.

11 Treatment Implications of the Case

As illustrated above, although childhood GAD is a common disorder, each patient is unique. Treatment may be complicated by patient age, family support, or cognitive ability. Based on this case, a CBT treatment protocol appears to be an effective means of providing acute and longterm relief to young children suffering from GAD. It also appears that family-based strategies are a necessary part of treating young children with GAD such that supportive family systems can assist in the recovery of otherwise healthy children. Jake's parents and brother were active and necessary participants in Jake's treatment due to the potentially limiting factor of his age, which could have interfered with the success of treatment without the presence of family involvement between sessions.

12 Recommendations to Clinicians and Students

Based on the existing literature for the treatment of GAD and the experience of working with Jake, we offer four recommendations for clinicians intending to treat young children with GAD. First, clinicians should be well acquainted with the nature of anxiety

in young people and the use of CBT for the treatment of GAD before attempting to treat youngsters with GAD. Second, established measures should be used for assessment, including semistructured interviews (e.g., Kiddie-SADS), parent reports (e.g., BASC), and self-report data (e.g., SUDS). Third, clinicians should remember that most empirically supported treatments for children include significant family involvement (Barrett et al., 1996). Clinician contact with the family provides an opportunity for psychoeducation of the entire family in addition to treatment for the individual child. We encourage clinicians to provide families with a mode of contact between sessions to address any concerns in a timely manner. Last, although the treatment of Jake's anxiety was manualized, adapting the protocol to fit his individual interests and cognitive level (e.g., using Batman as a prototype for "strong and relaxed") may have added generalizability to the treatment outcomes. Encouraging Jake to individualize his treatment helped him to make the coping skills he learned during sessions more personally salient and to translate them to everyday experiences in between sessions. In sum, this study provides evidence to support the effectiveness and long-term durability of family CBT in the treatment of GAD in young children.

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