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Anxiety and Behavior: Brief Cognitive Behavioral Therapy in School With a Ten-Year-Old Boy Using the Coping Cat Program

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Anxiety and Behavior: Brief Cognitive Behavioral Therapy in School
With a Ten-Year-Old Boy Using the *Coping Cat* Program

A Project Presented to the
Graduate Faculty of
Minnesota State University Moorhead

By

Sarah Jean Bernhardt

In Partial Fulfillment of the
Requirements for the Degree of
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Examining Committee:	Dr. Margaret Potter, Chair Dr. Olivia Melroe Dr. Mary Dosch

Abstract

The prevalence of anxiety in school-age children is on the rise. Schools offer a unique opportunity to identify children who struggle with symptoms of anxiety and to provide interventions to reduce anxiety. This project evaluated the results of providing the *Coping Cat* cognitive behavioral program in a public elementary school with a fourth-grade student named Dawson (a pseudonym) with a history of behavioral problems and a diagnosis of Generalized Anxiety Disorder (GAD) and Attention Deficit Hyperactivity Disorder (ADHD). Dawson completed 8 sessions (on 7 days) of the 16-session curriculum of *Coping Cat* in the school setting at a rate of approximately two sessions per week. Despite receiving only 8 of the 16 sessions of the program and with no parent involvement, the Dawson demonstrated improvement in the behaviors measured (e.g., aggression, keeping hands to self, blurting). Results support the use of a brief version of *Coping Cat* as an effective program for anxiety reduction that may feasibly be implemented in the school setting. Discussion includes implications for application of school-based intervention using cognitive behavioral strategies to reduce anxiety symptoms.

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CHAPTER I

INTRODUCTION

In May of 2018, I completed a 100+ hour school psychology practicum working under the supervision of a school psychologist. At the beginning of my practicum, I expressed to my supervisor my interest in working with a student diagnosed with anxiety. My supervisor consulted with a special education teacher in one of his schools who referred a 4th grade student. The teacher suspected that the child's problem behaviors were related to high levels of anxiety and requested he receive an intervention targeting anxiety. The child, Dawson (a pseudonym), demonstrated problem behaviors at school such as being verbally and physically aggressive toward peers and teachers, talking out of turn in class, inability to pay attention to lessons and directions, work completion difficulties, and talking during teacher instruction periods. Dawson was diagnosed with Generalized Anxiety Disorder (GAD), Attention Deficit Hyperactivity Disorder (ADHD), and Oppositional Defiant Disorder (ODD) by an outside mental health provider from a local health network.

Dawson qualified for Special Education services under the category of Specific Learning Disabilities with a secondary disability category of Speech/Language Impairments, but his special education teacher reported his primary difficulties were in the area of social and emotional functioning. He had an Individual Education Plan (IEP) in place, which is a legal document written by school staff outlining the modifications

and/or accommodations Dawson needed to make academic progress. The IEP also defines goals and methods to monitor progress toward goals. According to Dawson's IEP, he spent less than 40% of his school day in the general education environment because the special education classroom had been determined to be the least restrictive environment for him to receive appropriate instruction for his needs. He received all academic instruction in the resource room with a special education teacher except for social studies. Dawson's progress toward appropriate behaviors in school was monitored using a daily behavior rating checklist which he filled out with his teacher or paraprofessional at the end of each school day. His special education teacher noted that she felt his anxiety prevented him from making expected progress in academic subjects as well as in social skills development.

Dawson's primary teacher, his special education teacher, requested intervention with Dawson focus on reducing his anxiety, and together we identified anxiety as an area in need of targeted intervention. The special education teacher, general education teacher, and gym teacher all voiced concerns that they could predict problem behaviors based on observing Dawson's anxiety symptoms. For example, if he became anxious after an interaction with a peer, he might express complaints of stomach aches or "shaky" feelings and would often become verbally and physically aggressive with peers and defiant toward teachers immediately after making such statements.

A literature review follows that will provide background information on the increasing prevalence of and characteristics correlated with anxiety disorders in children, including demonstration of problematic behaviors. Some common treatment

approaches and an examination of the effectiveness and feasibility of intervention using brief cognitive-behavioral therapy for reducing symptoms of anxiety in the school setting will be discussed. Evidence in support of brief cognitive behavioral therapy using the *Coping Cat* (Kendall & Hedtke, 2006) manual-based program for the treatment of anxiety will also be presented. When I used the *Coping Cat* program with Dawson, problem behaviors the school was working to decrease did appear to decrease with treatment. I will share data showing Dawson's improvement in target behaviors during and after intervention using *Coping Cat* and a discussion of implications regarding the utility and feasibility of school-based interventions for reducing anxiety.

CHAPTER II

LITERATURE REVIEW

The U.S. Public Health Service (2000) projected a steady increase in the prevalence of anxiety in our nation's student populations for the foreseeable future. In the nearly two decades since that prediction was released, there have been calls for a broader understanding of unmet emotional needs in students and claims of a rising mental health crisis in American schools (The White House, 2013; von der Embse, 2018). The National Alliance on Mental Illness (2018) stated that more than half of all people who will experience mental illness in their lifetime begin having symptoms by age fourteen, but only half of those who suffer from mental illness get treatment, so it is up to schools to identify early warning signs and provide access to effective interventions.

Mental illness is known to be stigmatizing while most people with mental illness who receive appropriate treatment are no more dangerous than the rest of the population (Rueve & Welton, 2008). Untreated mental illness in teenagers, although it is not a known cause of school violence, has been correlated with increased threats of violence in schools in the U.S. and abroad (Oksanen, Kaltiala-Heino, Holkeri, & Lindberg, 2015; Thompson & Alvarez, 2013). Many authors in the fields of both mental health and education point to the alarming trends of swelling mental health problems in young people and have called for a broad focus on the way we address (or do not address) child mental health problems like anxiety disorders in education settings (Greene, 2014,

Greene, 2016, Kauffman & Badar, 2018, Minahan & Rappaport, 2017, Wehry, Beesdo-Baum, Hennelly, Connolly, & Strawn, 2015). Kauffman and Bader (2018) estimated that of the 75 million people under the age of 18 in the United States, approximately 3.5 million need help for serious mental health problems, but fewer than a million students are identified and qualified for special education services in the emotional disturbance category (the special education category most appropriate for a student whose primary disability is mental health problems). Although mental health services are often available outside the school setting, special education is the only mental health service most students with mental health problems get. Schools are one place where it might be most feasible to both identify and treat anxiety in children and adolescents, and thus potentially improve outcomes for society.

Adolescence and childhood have been found to be the “core risk phase for the development of anxiety symptoms and syndromes” (Beesdo et al., 2011), but there is some good news regarding anxiety disorders in our nation’s youth. Anxiety disorders in adolescence have been found to be less persistent than in adults, and to have a more episodic nature, which means it might be present and problematic for young people sometimes but not all the time (Burstein, Beesdo-Baum, He, & Merikangas, 2014; Wehry et al., 2015). It appears likely in the best interest of individuals suffering with anxiety disorders, as well as that of society at large, to correctly diagnose and treat anxiety in children and adolescents as early and as effectively as possible.

Research suggests anxiety disorders often begin in childhood and are more likely to persist throughout the lifespan when left untreated (Wehry et al., 2015). Diagnosis of

Generalized Anxiety Disorder (GAD) using the criteria set forth by the American Psychiatric Association (2013) in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-V) requires, among other characteristics of pathological anxiety, that a person experience excessive worry or uncontrollability of worry most days for a period of six months, but it has been suggested that strict application of the current APA standard by diagnosticians does not allow identification of many individuals who are suffering functional impairment and experiencing symptoms similar to those who do meet diagnostic criteria, due to the episodic nature of anxiety in young people and other factors (Burstein et al., 2014).

Anxiety: Prevalence and Problems

Bandelow and Michaelis (2015) looked at pathological or problematic anxiety among people and found that recent estimates concluded anxiety is expected to occur in 33.7% of the population over the course of a lifetime. In the general population, the likelihood of experiencing an anxiety disorder varies by age and gender; for people ages 18-64 prevalence has been estimated at 40.4% for women and 26.4% for men, and for those ages 13-17 at 38.3% for young women and 26.8% for young men (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012a). Anxiety disorders are the most common mental health problem to occur in childhood and are associated with failure to make expected progress in schools, functional impairments, and co-occurring mental health disorders (Wehry et al., 2015). The American Psychiatric Association (2013) warns that many anxiety disorders start in childhood and are likely to continue into adulthood if untreated, but research has shown that a majority of children who would

qualify for an anxiety diagnosis are not getting treatment (Greene, 2014; Kaufmann & Bader 2018; Smith, 2018). One reason youth do not get treatment is the fact that what anxiety looks like varies in young people and changes over time (Beesdo-Baum et al., 2011), and there is debate over the diagnostic criteria used to identify specific types of anxiety disorders like GAD (Kessler et al., 2012b) because symptoms can fluctuate in ways that might make it difficult to correctly diagnose and treat.

Diagnosis of Anxiety Disorders

Anxiety disorders include generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), panic disorder, posttraumatic stress disorder (PTSD), separation anxiety, social anxiety (also called social phobia), selective mutism, agoraphobia, and specific phobias, and all of them often co-occur with other mental health disorders (American Psychiatric Association, 2013, Anxiety Disorders Association of America, 2018). Anxiety disorders are the most common mental illness found in children, and among them the six most common to occur in childhood are GAD, separation anxiety disorder, selective mutism, specific phobia, panic disorder, and social anxiety disorder (Smith, 2018, Wehry et al., 2015).

The tool used most often by clinicians to diagnose mental health disorders is the DSM-5 (American Psychiatric Association, 2013; Mayo Clinic, 2018). According to the DSM-5, anxiety disorders are those mental health disorders that “share features of excessive fear and anxiety and related behavioral disturbances” that are not attributable to a medical condition, another mental health disorder such as schizophrenia, or substance use (American Psychiatric Association, 2013, p. 189).

The DSM-5 (American Psychiatric Association, 2013) directs diagnosis of Generalized Anxiety Disorder (GAD) in children when symptoms of anxiety and worry have (a) occurred more days than not for at least six months regarding multiple life activities such as school performance; (b) the person finds the worry difficult to control; (c) the worry causes impairment or distress in important areas of functioning (such as socially or school); and (d) the worry is associated with at least one of the following:

- Restlessness or feeling very on edge
- Being easily fatigued
- Difficulty concentrating or “drawing a blank”
- Irritability
- Muscle tension
- Sleep disturbance (p. 222)

Symptoms of anxiety disorders tend to fluctuate around the diagnostic criteria threshold for those with anxiety disorders. Issues with recall, or how well patients remember and report symptoms over time, can make diagnosis difficult and limit one’s access to treatment (Kessler et al., 2012b). Those who seek help from a clinician for clinically significant worry that otherwise aligns with GAD symptomology are likely to be diagnosed with an anxiety disorder that is not otherwise specified if their symptoms have not been present for the requisite six months (Comer, Pincus, & Hofmann, 2012), which could potentially delay appropriate treatment.

Anxiety in Children and Adolescents

Anxiety is protective and adaptive in people because it can enhance performance, reduce risk of injury, promote avoidance of danger, and help with goal attainment (Kendall, Furr, Podell, 2010; Kodish, Rockhill, & Varley, 2011). Typical anxiety can be described as the brain's response to danger, whereas pathological anxiety or an anxiety disorder can be "characterized by persisting or extensive degrees of anxiety and avoidance associated with subjective distress or impairment" (Beesdo, Knappe, & Pine, 2009, p. 2).

Left untreated, anxiety disorders, or pathological anxiety, can have seriously damaging long-term consequences. Swan and Kendall (2016) reported anxiety has negative effects on children's long-term academic, occupational, family, social, and legal functioning. As adults, children with untreated anxiety are less likely to attain independence and more likely to experience decreased life satisfaction. Conway, Swendsen, Husky, He, and Merikangas (2016) studied 10,123 adolescents and found significantly higher rates of alcohol and drug abuse were reported among youth with a history of mental disorders, and among those, young people were most likely to abuse alcohol and drugs when a prior history of anxiety disorders (17.3% and 20%, respectively) or behavior disorders (15.6% and 24%, respectively) was present. Youth with anxiety disorders are also more likely than youth without anxiety disorders to self-report suicidal ideation (O'Neil, Rodriguez, & Kendall, 2014).

The rates of anxiety disorders have been found to be much higher in children who also have other mental health problems (for example ADHD) than in the general

population, a phenomenon known as comorbidity, or multiple simultaneously occurring mental health conditions (American Psychiatric Association, 2013; Chavira, Stein, Bailey, & Stein, 2004). Children with both an anxiety disorder and ADHD are known to have higher rates of other disorders such as sleep problems and rage episodes that can temporarily reduce one's ability to think and function typically (Hansen, Skirbekk, Oerbeck, Wentzel-Larsen, & Kristensen, 2014; Peterman, Carper, & Kendall, 2015). For example, sleep problems on their own have been shown to lead to cognitive impairment and impaired performance on neurocognitive testing (Beebe, 2011; Kendall & Chansky, 1991). Anxiety has also been linked with social maladjustment (Chansky & Kendall, 1997) and rage associated with anxiety has been associated with higher levels of functional impairment (Johnco et al., 2015). Education professionals might benefit from considering the potential educational impact for a student with comorbid disorders (for example a combination of anxiety, ADHD, and sleep problems) and how an array of disorders might play out in school for a child who is expected to cope with symptoms in socially appropriate ways while also being expected to strive to achieve grade level skills in academics.

While symptoms can be diagnosed as a manifestation of separate disorders, schools are teaching and serving a whole child. In a child with anxiety and comorbid disorders, anxiety might be the most helpful place to start. Anxiety disorders have been found to be responsive to therapeutic interventions and treating anxiety can improve comorbid conditions as well anxiety symptoms (Kendall, Furr, & Podell, 2010). Early treatment of anxiety disorders is associated with reduction in anxiety related problems

like sleeplessness and rage as well as reducing primary anxiety symptoms (Johnco et al., 2015; Wehry et al., 2015).

Treatment Options for Anxiety

Commonly used treatment interventions for anxiety include the use of psychiatric medication and psychotherapy (Bystritsky, Khalsa, Cameron, & Schiffman, 2013). The most frequently used medications to treat anxiety disorders in children are known as selective serotonin reuptake inhibitors, or SSRI medications. The only SSRI medications approved by the FDA to treat anxiety in children are sertraline (Zoloft), fluoxetine (Prozac), and fluvoxamine (Luvox) (Kodish et al., 2011). Although the benefit of receiving medication is commonly considered by medical professionals to outweigh the risks, unwanted side effects can occur with medication use, including increased risk of suicide (Bridge et al., 2007, U.S. Food and Drug Administration, 2018).

Medication is often a first-line intervention for a majority of mental illnesses, but it is not recommended to be used as the only intervention for the treatment of anxiety disorders (Bystritsky et al., 2013). In a study of children with anxiety disorders, those who received cognitive-behavioral therapy (CBT), a form of psychotherapy, demonstrated more improvement (60%) than a group of children who only received medication (55%), but the combination of both medication and CBT demonstrated the best treatment outcomes (Bystritsky et al., 2013, Walkup et al., 2008). Bystritsky et al. (2013) described the two most common approaches to treatment of anxiety disorders as beginning with either medication or cognitive behavioral therapy (CBT), then proceeding to add the other treatment intervention (for example adding CBT if medication alone does

not resolve symptoms or adding medication if CBT alone does not resolve symptoms) if symptom relief is not satisfactory following a single intervention.

Standard CBT interventions are typically comprised of 11-18 weekly sessions by trained therapists and include the challenging of negative or catastrophic thinking and graduated exposure to feared or anxiety-producing stimuli (Öst & Ollendick, 2017). The latest incarnation of CBT is known as BIC, an acronym that stands for brief, intensive, and concentrated cognitive behavioral treatments. Öst & Ollendick, defined brief as interventions that use a reduced number of sessions compared to standard CBT treatments, concentrated as interventions that utilize more than one session per week over a fairly short time period, and intensive as those interventions that qualify as both brief and concentrated. An example of a BIC would be using a treatment designed to be implemented once per week over 16 weeks at a rate of two sessions per week over 4 weeks. When shortening cognitive behavioral interventions for anxiety, Öst & Ollendick, reported the most important elements to retain are cognitive restructuring, or the challenging of catastrophic thinking, and graduated exposure, such as exposing the person to the feared, anxiety-producing stimuli using either real life, imaginal, or virtual reality enactments.

BIC interventions represent a paradigm shift in the delivery of services for youth with anxiety disorders. In the review by Öst & Ollendick (2017), researchers measured anxiety before and after treatment with BIC using ongoing clinical measures of anxiety such as evaluations by independent assessors using clinical ratings scales, a behavioral approach test, or a self-rating scale of anxiety. The mean number of days for BIC

treatment was 16.4 days. The means reported for number of sessions was 4.2, total number of hours of BIC treatment 7.0, and intensity was 4.3 hours per week. The study found that while both BIC (64%) and CBT (63%) were significantly more effective than placebo (35%) in the treatment of anxiety, there was no significant difference between CBT and BIC. This suggests that short, intensive, concentrated treatment using cognitive behavioral interventions with students suffering from anxiety might be an efficient and feasible way for schools to provide students access to evidence-based treatment for anxiety disorders in schools.

Assessing Anxiety and Response to Anxiety Intervention in Children

Outcomes of interventions designed to reduce anxiety can be assessed in multiple ways. To evaluate effectiveness of an intervention, baseline data should be collected prior to implementation of the intervention and continue to be collected and evaluated both during and after the intervention implementation (Burns, Riley-Tillman, Rathvon, 2017). Podell, Mychailyszyn, Edmunds, Puleo, and Kendall (2010) used the Clinical Global Impression – Severity Improvement Scales (CGI-I) in combination with other measurement tools to collect data for baseline and progress monitoring before and during implementation of a manual-based CBT therapy for anxiety. The CGI-I is a clinical rating scale that allows scoring of anxiety symptoms on a scale of 1-7, with 1 being very much improved and 7 being very much worse. The CGI-I is considered effective for measuring anxiety but can only be administered, scored, and interpreted by doctoral level mental health professionals. Podell et al. (2010) used the Multidimensional Anxiety Scale for Children (MASC) to collect baseline and outcome data. The MASC is a 39-item self-

report scale in which items are rated on a 4-point scale (0 = never true for me, 4 = always true for me) to measure anxious symptoms in youth ages 8-19. A notable feature of the MASC (now available in a second edition known as MASC-2) is that it has been tested in both schools and clinical applications, and can be used to assess anxiety in young people by professionals with a Master's degree in a field related to the purpose of the assessment (such as school psychology) who have training on ethical scoring, administration, and interpretation can use the instrument (MHS Assessments, 2018). Another option for measuring anxiety is an instrument known as Revised Children's Manifest Anxiety Scale-Second Edition or (RCMAS-2), which is designed to be quick (e.g. less than fifteen minutes to administer) and can be repeated frequently for progress monitoring AD treatment (Reynolds & Richmond, 2008). The CGI-I and MASC measures are useful for measuring anxiety before and after a clinical intervention but would not be practical for monitoring daily progress in the school setting.

Daily behavior rating (DBR) forms are a commonly used way to monitor behaviors in school because they are quick and relatively easy. Daily behavior ratings, also known as direct behavior ratings, are a worksheet or form with a list of target behaviors that are rated on a numerical scale at a regular interval, such as hourly, daily or weekly that have been shown to be a valid way to monitor progress for both academic and behavioral interventions (Ecklund & Kilgus, 2018). According to Chafouleas, Riley-Tillman, and Sugai (2008), DBRs are sensitive to change and teachers find them acceptable, feasible to use with available resources, and familiar, although the authors caution DBR data should be used in combination with other data sources and a

convergence of data (or several sources of data pointing to similar results) should be obtained before using DBR data to make important decisions. Smith, Eklund, and Kilgus (2018) provided further evidence that DBR forms provide both high social validity (as in they were acceptable to teachers) and accurate recording of data, as well as being sensitive to change over time when used to monitor progress for academic engagement and disruptive behaviors. Balmer (2017) used daily behavior ratings to monitor progress while using a brief version of the *Coping Cat* intervention to reduce anxiety symptoms in an adolescent in a school setting. In Balmer's study both the teacher and the student separately rated the student's performance of target behaviors on a DBR form at the end of each class period, and both the interrater reliability (how close their ratings were to one another) and the change in ratings was measured over time.

Barriers to Anxiety Treatment

Salloum, Johnco, Lewin, McBride, and Storch (2016) studied 100 children aged 7-13 with anxiety disorders (and their parents) to learn about barriers to anxiety treatment for those who were diagnosed with an anxiety disorder. They found the most common barrier (66%) to obtaining treatment for anxiety is not knowing where or to whom to go for help. Parental stress and problems with homework completion due to time spent involved in treatment (such as being out of the classroom or spending time attending therapy appointments after school) were barriers for parents and children, respectively. For those who did not complete treatment once beginning to access services for anxiety, the top reasons given for dropping out were the stigma of being a mental health patient, concerns about confidentiality, and cost for care.

Kendall, Hudson, Choudhury, Webb, and Pimentel (2005) found that parental involvement in treatment is preferable and an indicator of improved treatment outcomes for children with anxiety. In contrast, Öst, and Ollendick (2017) found that those who had low parental involvement in treatment for anxiety (defined as parents were informed and gave consent for treatment but did not participate) demonstrated significantly higher effect size (or amount of improvement) than those with high parental involvement. These authors suggested this seemingly puzzling finding of more improvement in children with low parental involvement might be related to parents potentially providing children with so much “safety” that children with anxiety do not develop the skill needed to master fears in the presence of parent protection. Breinholst, Esbjørn, Reinholdt-Dunne, and Stallard (2012) found parental involvement, although generally considered preferable, is not essential for treatment to work. Schools offer an environment for treatment that allows for parental involvement but does not require it, which might make it the optimal access point for treatment of anxiety disorders in young people.

Common School-based Interventions for Anxiety

School-based service delivery can address anxiety by providing assessment (Fletcher, 2014) and access to psychological interventions (Weeks, Hill, & Owen, 2017). The most common psychological interventions used in school and educational psychology are solution focused approaches, person/client centered, and cognitive behavioral therapy, also known as CBT (Pugh, 2010).

Solution-focused approaches are a type of psychotherapy which prioritizes the present situation, rather than any past problems or trauma, and uses goals and strengths-

based planning in a coaching-type style of psychological support to create solutions as opposed to focusing on deep-rooted causes of problems (Iveson, 2002). Person/client centered approaches also promote a focus on the current situation/issue/problem, but specify positive value is placed on expression of feelings, focus on the individual's progress and ability to make choices, and authority roles in the therapy relationship are devalued (Gondek et al., 2017). Traditional cognitive-behavioral therapies (CBT) are designed to change one's thoughts about something that triggers fear or anxiety by teaching the client to notice what they are thinking and feeling when the stimulus or trigger occurs, thereby allowing use of coping skills such as positive self-talk, relaxation, and self-reinforcement (McKinnon et al., 2018). CBT is considered well-supported evidence-based practice for the treatment of anxiety and other disorders (Flannery-Schroeder & Kendall, 2000; McKinnon et al., 2018; Pugh, 2010).

Studies comparing effectiveness of the different approaches seem to indicate that people who receive some form of evidence-based therapy are better off than those who do not get help. Both solution-focused and person/client centered therapies have been shown effective in helping people with mental health problems and can be used alone or in combination with other therapy formats (Cepeda & Davenport, 2006). Boyer, Geurts, Prins, and Oord (2016) compared the use of cognitive behavior therapy and solution-focused therapy in adolescents with ADHD and found that while both therapies were associated with large effect sizes (as in both therapies significantly improved symptoms), there was not a significant difference based on which of the two approaches were used.

Manual-based therapies are therapies designed with a step-by-step printed guide a therapist can work through with a client in a way that is similar to the way a teacher moves students through published math or reading curriculums, with a manual for the teacher and a workbook of lessons for the learner. Smith et al., (2017) looked at the use of a manual-based form of CBT therapy in different settings and concluded that using a manual-based format might increase treatment integrity (administering the therapy as it was designed to be administered) and reduce the variability of treatment in different settings. Beidas, Benjamin, Puleo, Edmunds, and Kendall (2010) found that for younger children, therapists should consider “flexibility within fidelity” when using a manual-based CBT program, using adaptations such as use of play and age appropriate relaxation techniques to effectively communicate the content of CBT. Reigada, Fisher, Cutler, and Warner (2008) found that CBT therapy adapted from the evidence-based manual therapy known as *Coping Cat* (Kendall, Kane, Howard, & Siqueland, 1990; Kendall, 1992 & 1994; Kendall et al., 1997) can be an effective intervention for children with non-medical somatic symptoms of anxiety (like stomach aches and headaches without a known medical cause).

Coping Cat: A Cognitive Behavioral Treatment Option

Coping Cat is a 16-week, manual-based CBT treatment designed for children ages 7-13 first published in 1990 and updated in subsequent versions (Kendall & Hedtke, 2006a & 2006b; Kendall et al., 1990). The *Coping Cat* manual was designed to increase the likelihood that essential elements of clinical CBT were delivered with fidelity, so children with anxiety would be more likely to get the benefits of CBT therapy that were

found in research studies using CBT interventions for anxiety (Kendall et al., 1990; Kendall, 1992).

The *Coping Cat* program had the top rating (1) in 2018 from the California Evidence-based Clearinghouse for Child Welfare (an agency funded by the California Department of Social Services Office of Child Abuse Prevention) and was cited by the agency as being well-supported by research. Therapists can implement the program with an individual client or in group sessions with 4-5 participants. The essential components of the program (Kendall & Hedtke, 2006b) are described by the authors as follows:

- Psychoeducation: children and families learn about how anxiety develops and is maintained and treated.
- Exposure tasks: the child has a chance to experience the feared situation and get through it using coping skills.
- Somatic management: the child learns relaxation techniques to help with the bodily sensations and experiences associated with anxiety.
- Cognitive restructuring: using the FEAR acronym, which stands for feeling frightened, expecting bad things, attitudes and actions that will help, and results and rewards, the child learns to become aware of anxiety and make choices about how to handle it.
- Problem solving: the child learns to call to mind specific actions for dealing with problems that trigger anxiety (p. iii.)

Kendall (1994) evaluated the effectiveness of *Coping Cat* for reducing symptoms of anxiety in children in a controlled trial with 47 children diagnosed with anxiety aged 9-13. Kendall hypothesized that children with anxiety who were treated with CBT would demonstrate improvement in anxiety more than children with anxiety who were assigned to the waitlist condition (that is, children who did not receive treatment until 8 weeks after the first group of participants began therapy). Treatment effects were measured using child and parent questionnaires and structured interviews

with the children and were shown to be significantly better than outcomes for those assigned to the waitlist condition. Sixty-four percent of the children treated with CBT no longer qualified for a diagnosis of anxiety disorder after the treatment; one child from the waitlist group no longer qualified for a diagnosis of anxiety disorder after an 8-week control. It was deemed unethical to withhold treatment for the children assigned to the waitlist condition for the full 16-weeks of the study. Kendall also demonstrated the treatment benefits were maintained over time by examining follow-up data collected one year after the end of the study.

In a follow-up study, Kendall and Southam-Gerow (1996) looked at 36 of the participants from the 1994 study to assess whether the gains were maintained long-term, and again found treatment gains were maintained over time (measured 2-5 years after treatment). In 1997, Kendall et al., published a replication of the original study of the *Coping Cat* CBT program with 94 children diagnosed with anxiety ages 9-13 years, and again showed significant gains in children treated (50% did not qualify for a diagnosis of anxiety disorder (posttreatment) and those assigned to an 8-week waitlist condition. Gains were again found to be retained after a period of one year (1997). Kendall, Safford, Flannery-Schroeder, and Webb (2004) did a follow-up on this second study with 86 young people (91% of the original sample) and found that 81% of the sample no longer met diagnostic criteria for anxiety as measured 5.5-9.3 years posttreatment. Kendall, Hudson, Gosch, Flannery-Schroeder, and Suveg, (2008) found *Coping Cat* was effective in reducing anxiety symptoms in children ages 7-14. Suveg, et. al., (2009) found that treating the children with *Coping Cat* was also effective in reducing

externalizing behaviors according to teacher and parents reports. *Coping Cat* was even more effective when used with an added emphasis on the also providing education and support to the family, which resulted in improvement in both parent and teacher reports of problem behaviors and adaptive behaviors in students post treatment that was sustained a year later, with no difference in effectiveness between genders. Keeton, et. al. (2013) found evidence that treating a child who has anxiety with the *Coping Cat* program can improve family functionality. With evidence that *Coping Cat* worked, it was time to see how it stacked up to the first-line approach of using medication to relieve anxiety symptoms.

Kendall and colleagues (Walkup et al., 2008) went on to compare results of receiving the *Coping Cat* treatment to receiving the *Coping Cat* program, the medication Zoloft, or both to a placebo in 488 children with anxiety disorders. They found the *Coping Cat* treatment results were comparable to treatment with Zoloft; receiving both in combination was most efficacious. Results were reported in terms of percentages of each group that were very much or much improved: 80.7% for the combined therapy, 59.7% for *Coping Cat*, 54.9% for Zoloft alone, and 23.7% for the placebo group.

Further research on the *Coping Cat* program demonstrated that it remains beneficial when delivered in various settings (Smith et al., 2017) and when implemented with value placed on “flexibility within fidelity” rather than strict adherence to the program as it is written, with an intent to allow therapists to individualize the program as appropriate in practice (Beidas, Benjamin, Puleo,

Edmunds, & Kendall, 2010; Podell, Mychailyszyn, Edmunds, Puleo, & Kendall, 2010). Michael, Payne, and Albright (2012) adapted the program for use with a 6-year-old boy with GAD by adapting for needs for reading and writing sections (the therapist did the reading and writing) and teaching the child to be “strong and relaxed like Batman” as a strategy to communicate relaxation techniques in a way that resonated with the boy. The boy’s mother reported at 3- and 7-years post-treatment the child no longer met criteria for an anxiety disorder. The program has been shown effective for treating anxiety in students with various other diagnoses such as autism (McNally, Keehn, Lincoln, Brown, & Chavira, 2013) and has demonstrated symptom reduction in disorders comorbid with anxiety such as ADHD and depression (Hudson, Krain, & Kendall, 2001). *Coping Cat* has also been shown to provide long-term protection from suicidality in youth (Wolk, Kendall, & Beidas, 2015).

In a meta-analysis of 63 studies conducted in 11 countries, a majority of which were done in the United States, Mychailyszyn, Brodman, Read, and Kendall (2012) found that school-based anxiety interventions (such as *Coping Cat* delivered in school) demonstrated significantly better outcomes on student anxiety symptoms than did control groups of those who did not receive an intervention, and that increased durations, as in longer, more resource intensive versions, of anxiety interventions did not correlate with better outcomes. Beidas, Mychailyszyn, Podell, and Kendall (2012) described how a brief cognitive-behavioral therapy (BCBT) version of *Coping Cat* (8 sessions) was used with a 7-year-old boy to reduce anxiety and suggested that the brief

format might be ideal for reducing barriers to treatment access by allowing efficient anxiety treatment in schools.

In 2013, Crawley et al., published results of a study of an 8-session BCBT version of *Coping Cat* for ages 6-13 and found the shortened version of the program was feasible and beneficial. The researchers pointed out that delivering BCBT is more practicable in community settings than in clinical settings because it requires fewer sessions. A single therapist must spend less time being trained on how to deliver the sessions and is able to treat twice as many children in the same amount of time when the number of sessions is reduced from 16 to 8. BCBT reduces the resources and family commitment necessary to treat a child, such as transportation costs, the time and effort involved, and the cost of the treatment, all of which are known reasons sometimes children drop out of treatment before it is complete. The study offered that a school-based program could circumvent these barriers to treatment and provide access to anxious and at-risk youth who are currently underserved.

Summary

Children are suffering from mental illness in the form of anxiety disorders at alarming rates and anxiety impacts student rates of externalizing and adaptive behaviors. Treatments exist that work to improve symptoms and lead to better long-term outcomes for children with anxiety disorders, but not all children who might benefit from treatment are able to get help. Cognitive behavioral therapy using a manualized format helps deliver treatment that has been shown to improve anxiety symptoms in children, even when used in a shortened form. One cognitive behavioral

therapy option is *Coping Cat* (Kendall & Hedke, 2006a). The program is designed to be used to reduce problematic levels of anxiety in children ages 7-13 by providing psychoeducation to the child and the child's family and implementing exposure tasks with the child. *Coping Cat* has been shown to be an evidence-based practice with established long-term treatment benefits (Kendall, 1994; Kendall & Southam-Gerow, 1996; Kendall et al., 1997; Kendall et al., 2004). The *Coping Cat* manual-based CBT program has been shown to improve outcomes for children with anxiety disorders and improve family functionality (Keeton et al., 2013). *Coping Cat* has been shown to provide long-term protection from negative outcomes for those who suffer from anxiety disorders (Wolk et al., 2015). Practitioners have been encouraged to adapt the program as needed in practical application (Beidas, et al, 2010, Michael et al., 2012; Podell et al., 2010), and brief version of *Coping Cat* was shown to be feasible and beneficial for use in the school setting (Crawley et al., 2013). A brief version of *Coping Cat* has also been shown to be an effective and appropriate option for treating anxiety in children in schools (Beidas et al., 2012; Crawley, et al, 2013).

Purpose

The purpose of this study was to examine whether receiving a BCBT in the form of the *Coping Cat* program in the school setting would reduce problem behaviors as measured by daily behavior ratings in a student diagnosed with ADHD, ODD, and a Generalized Anxiety Disorder who was taking Zoloft.

CHAPTER III

METHOD

Participant

The participant in this study was a white male who was a fourth-grade student in a public Midwestern elementary school, which served 170 students grades 3-5. His pseudonym for this study was Dawson. The school population was 2% Asian, 9% African American, 5% Hispanic, 4% Native American, 1% Pacific Islander, 1% Unknown, 79% White. Dawson was qualified for special education under the primary disability category of Specific Learning Disability (SLD), with a secondary disability categorization of Speech Language Impairments.

Dawson had transferred to his current school this year with an IEP under SLD, and his family was planning to move him to another school next year. Teacher interviews indicated significant behavior problems, and it was discussed among school staff whether to complete additional assessment for the purpose of potentially changing his disability category, but it was decided to focus instead on helping him make as much progress as possible during the year he was in the present school.

Dawson was diagnosed by a clinical practitioner outside of the school district with ADHD, Generalized Anxiety Disorder (GAD), and Oppositional Defiant Disorder. His mother reported he took the medication Zoloft for anxiety. Dawson also took melatonin as needed for insomnia. Dawson struggled to make academic progress in school as well

as to interact appropriately in social situations. According to Dawson's teacher, he continued to take the medication Zoloft for anxiety at the same dose for the duration of this study. He occasionally visited with the school counselor as needed when problem behaviors prompted teachers to send him to the counselor's office, but this was not a regularly scheduled appointment. Dawson's problem behaviors included restlessness, complaints of stomach aches and "shaking feelings," sleeplessness, hitting others, swearing or using inappropriate language with peers and adults in school and at home, and persistent difficulties forming positive peer relationships.

Dawson's current IEP had him spending less than 40% of the school day in the general ed classroom. He had self-regulation and self-management strategies written into his IEP, which essentially assigned his paraprofessional the task of modeling and shaping appropriate behaviors and self-regulation strategies one-on-one throughout the day. Dawson received individualized interventions for academic concerns in math, reading, and writing in the resource room with a special education teacher who specialized in students with emotional and/or behavioral concerns. He spent approximately 90 minutes in the general education classroom per day, in only one academic subject (social studies), with the rest of the time spent with peers in gym, library, music, recess, and lunch, with one-on-one paraprofessional support across all settings. Dawson's IEP stated he required support from adults to problem solve, discuss appropriate behaviors, work through academic work, and attend to whole group classroom lessons appropriately. His teacher reported that Dawson functioned across all areas of academics at approximately the level expected of a student at the beginning of second grade. His IEP specified that an adult

was required for proximity control, to give cues, provide supervision, monitor anxiety levels, give calming strategies, and to redirect during incidents of physical and verbal aggression toward peers and adults. His IEP stated he required one-on-one para support across all school settings including academics, resource room, specials such as music, physical education, art, library, and field trips, but at the time of the study this was often not available due to staffing shortages.

Materials

Coping Cat Manuals

The materials used for this intervention included the *Coping Cat Cognitive Behavioral Therapy for Anxious Children: Therapist Manual*, 3rd Edition (Kendall & Hedtke, 2006a) and *Coping Cat Workbook*, 2nd Edition (Kendall & Hedtke, 2006b), and the *Coping Cat Parent Manual* (Kendall, Podell, Gosch, 2010). All three are published by Workbook Publishing and the *Coping Cat Cognitive Behavioral Therapy for Anxious Children: Therapist Manual* was developed and evaluated using several research grants from the National Institute of Mental Health (Kendall & Hedtke, 2006a). The *Coping Cat* program provides 16 sessions designed to be used once weekly for 16 weeks. Lessons 1-3, 6-8, and 10-11 were implemented as designed. Lessons 4 and 9 are intended to be sessions with the parents and were not used but were printed and sent home. The remaining sessions were not used.

Student Workbook

The Coping Cat Student Workbook includes 16 individual lessons. Sessions 4 and 9 are parent sessions and were not used, but materials were printed and sent home. The

rest of the sessions 1-3, 5-8, and 10-16) are conducted one-on-one between the therapist and the child. The sessions we completed were 1-3, 6-8, and 10-11.

Reinforcers

Various tangible reinforcers, including small toys and snacks each valued at \$1 or less, were used as rewards along with no-cost positive reinforcement strategies, such as positive praise and extra gym time. Elmer's school glue, borax, lotion, and orange acrylic paint were used to make sensory slime for Dawson to take home after the last session.

Daily Behavior Ratings

Progress was monitored using a daily behavior rating form that the school had been using to track Dawson's progress on target behaviors since January 2nd of 2018 (Appendix A). Data were collected using daily behavior ratings across five behaviors, which were in use prior to the beginning of this study and remained in use after the intervention until the last day of the school year. Daily behaviors were rated in each of the five categories using a scale of 1-3, with 3 being the most desirable rating. Ratings were defined as (1) I had a tough day, I need to work harder to make my day better tomorrow; (2) I needed a few reminders, but I was able to get myself back on track; (3) I did this perfectly and I did not need any reminders. I had a ROCKSTAR day!!

Dawson's daily behavior checklist included five target (desired) behaviors. The five behaviors listed on the daily behavior checklist were (1) I kept my hands, feet, and objects to myself. I played safe at recess and wasn't too rough; (2) I spoke in a kind voice to everyone. I wasn't mean to anyone. I didn't use swear words; (3) I paid

attention to all lessons and directions. If I needed help, I raised my hand. I stayed on task. I did not blurt; (4) I turned in all of my homework and class assignments that were due; (5) I controlled my talking by: not talking during instruction; raising my hand to ask a question; speaking softly or whispering; being quiet when asked; not talking in the halls.

The daily behavior rating form included a few sections that were not used during the data collected for this study. The unused portions of the form included a place to write a goal for the next week, a space for teacher comments, and a section to reflect on and rate the week by checking one of three sentences: (1) I had a great week! (2) My week was good, but I can do better; (3) I had a tough week. I will do better next week!

Procedure

Based on data collected from observations and interviews, as well as on discussions and consideration of various anxiety interventions that might be administered in the school setting, the *Coping Cat* (Kendall & Hedtke, 2006b) program was selected as the intervention most likely to be effective for Dawson. *Coping Cat* was designed to be implemented with 1 session per week for 16 weeks. Due to time constraints of the practicum, the program was implemented immediately on a schedule of two sessions per week in an effort to provide Dawson as many sessions as possible.

Dawson completed sessions 1-3, 6-8, and 10-11 (10 and 11 both on the last day) with me. Parent sessions were printed out and sent home with Dawson in lieu of completing those sessions with a parent. Session five required the use of a relaxation

compact disc and was omitted due to references in research literature that sessions focused on psychoeducation and exposure are most essential (Crawley et al., 2013).

Session 1 was an introduction and focused on building rapport between the Dawson and me. I introduced the concepts of thoughts and feelings and how they differ, and also introduced the Show That I Can (S.T.I.C.) tasks. S.T.I.C. tasks are an assignment that is to be sent home with the child after each session and that encourages the child to use the skill they worked on in the session. When S.T.I.C. tasks are completed and returned at the next session, the child earns a reward. I sent the S.T.I.C. homework with Dawson after the first session, but he lost it and I had to replace it for him. For all subsequent sessions I kept the S.T.I.C. homework in his classroom and we worked on it there together. Session 2 focused on Dawson learning to recognize feelings in himself and others, identifying some “scary” or anxiety-provoking situations Dawson had experienced, such as an older kid being mean to him or being afraid of the dark, and labeling those situations on a ladder as “easy,” “medium,” or “challenging.” These situations were used in later sessions to inform exposure tasks and exercises.

Lesson 3 taught Dawson about physical reactions to fear or anxiety. Dawson drew on a diagram of a human body where he experienced a “funny feeling” when he felt worried, such as a “shaky” feeling in his legs and a headache. Session 3 ended with introduction of the F of the *Coping Cat* F.E.A.R. acronym, which stands for Feeling frightened. In lieu of Session 4, copies of psychoeducational materials for Dawson’s mother were printed and sent home. As noted above, we did not do Session 5.

In session 6 I introduced the E of the F.E.A.R. acronym, which stands for Expecting bad things to happen. The session focused on teaching Dawson to think about the thoughts that precede feelings of anxiety using cartoons. The cartoons have a bubble overhead where Dawson could write what the subject in the picture is thinking. The cartoons demonstrated how different people can be thinking different things but look the same. The session also encouraged Dawson to notice the thought that comes before the feeling and then the action that follows. For example, Dawson drew in two thought boxes for a boy who is ice skating. Dawson wrote in one that the boy had to go to the bathroom and in the other he is thinking about a joke, then labeled the feeling and action that he thought would follow each thought. For the thinking he had to go to the bathroom, Dawson labeled the feelings nervous and worried and the action that would follow as leaving the rink. For thinking about a joke, Dawson thought the boy would feel funny and his action would be to laugh. The session ends with a role-play exercise in which Dawson told about a situation in which he felt a little nervous or scared. We used imagination to role play the situation and practice thinking about self-talk.

At the beginning of Session 7 on 04/24/18, Dawson had not completed his S.T.I.C. task from the previous session and did not remember to think about it as I had requested. When I arrived, his teacher did not want me to bring my prize basket in because he was “having a bad day” and “hadn’t earned anything good.” I agreed to leave it behind her desk but insisted if he did earn a reward in our time together, I would let him choose a prize because I felt our time needed to be handled separately from the rest of his day to be effective. His teacher agreed. Dawson hesitated to engage at first

but then did talk with me. He did not want to focus on the session and had his head down on his hands. He said, “I just want to go home.” I told him I could tell from his body he was feeling sad, and maybe nervous or scared. I mentioned I could tell he was sad because his head was down, he was sitting on his hands, and his feet were moving on the floor. I demonstrated with my own body what I was seeing him do and told him it looked to me like something was on his mind that didn’t feel good. He told me about an incident in gym class that morning in detail. He said a boy said, “hey dummy!” to him, and that made him feel “mad.” He said the boy pushed him on the way out of gym, and then he felt “really mad.”

Session 7 introduced the A for Attitudes and actions that can help! part of the F.E.A.R. acronym. The session dealt with deciding what to do when Dawson noticed feelings of worry or anxiety. Dawson talked about feeling nervous when a boy comes into class and thinking the boy won’t like him. We talked about how thinking the boy is mean or doesn’t like Dawson is Expecting bad things to happen like in *Coping Cat*. We discussed some Attitudes or actions that could help would be saying hi, making a joke, talking to the new student, or playing football. We got back into the session 7 in the workbook by talking about what happened in the context of the F.E.A.R. framework. He identified that when the boy said he was a dummy and pushed him, he felt “shaky” and “scared” and thought that “maybe I’m just stupid and everybody hates me.” We talked about a different thought he might have that would have helped him feel better, a prompt to consider the A of the F.E.A.R. acronym, Attitudes and actions that could help. We discussed it at length, and it took a few minutes for him to come up with, but

Dawson did eventually identify that he could have thought about being good at football and bowling, and his family loves him, and he has friends. He said he felt better and could cope with the rest of the school day. I gave him a prize at the end.

In Session 8 I introduced the R for Results and rewards to finish teaching the F.E.A.R. acronym. Dawson listed some small, inexpensive rewards that might feel good as a prize such as candy, toys, and breaks (to be used later as reinforcement for using the F.E.A.R. acronym when anxious in later sessions). Dawson tore out the “Feelings Barometer” from the workbook, which is a circle with pictures of the *Coping Cat* cartoon character with different feelings (very happy, happy, ok, not sure, bothered, unhappy, very unhappy). Dawson and I together cut out a card with the F.E.A.R. acronym for Dawson to take with him as a reminder of the steps and to show his mom. Dawson also chose Wolverine as a “coping character,” a character who would handle an anxious situation well that Dawson planned to think of and emulate when he felt worried. We did not do the second parent session, session 9, but I did again send home the psychoeducational material from *The Coping Cat Parent Companion*.

Sessions 11-16 are exposure tasks and are all about practicing the skills learned (such as identifying thoughts and feelings, noticing physical symptoms of anxiety, and using the F.E.A.R. acronym to deal with anxious feelings), but we were only able to do Sessions 10 and 11. Session 11 started with imagining a situation Dawson identified in Session 2 as “easy.” I encouraged Dawson to process through the situation using skills learned in the *Coping Cat* program (identify feelings, notice fear, thinking of attitudes and actions that can help, reward oneself for successfully coping with anxiety). I asked

Dawson to give himself a rating on a scale of 0-8 for how nervous he expected to feel next time he used the plan he made in the session for coping with the “easy” situation, with zero being very relaxed and 8 being very worried. Dawson was asked to rate how he would feel the next time he got in trouble with his special education teacher. Dawson rated his level of anxiety as a 2 and wrote that instead of thinking he might get kicked out of school he could think maybe it will be fine, and he can try to help by saying “sorry.” In Session 11 we repeated the same session format as session 10 but thought about how he would deal with it if a peer gave him a mean look at recess. Dawson worked through the F.E.A.R. acronym, saying first he would think “nobody likes me” and expect the kid to be mean, but then he could think “maybe the boy wants to play with me” instead, and maybe the reward would be getting a new friend. He rated his anxiety about facing this situation again in the future at a zero. Because it was our last session, we reviewed the meaning of each letter of the F.E.A.R. acronym again then made slime in Dawson’s favorite color (orange) together and said goodbye.

The procedures used were those prescribed by the *Coping Cat* program, as detailed in program workbook, with some exceptions that made use of the authors’ recommendation to allow for “flexibility within fidelity” (Kendall & Hedtke, 2006b). As writing was a stressor and an area of academic concern for Dawson, I gave him the choice to write or to have me scribe for him, and he chose to have me write as he dictated answers approximately half the time. Dawson did not complete the S.T.I.C. tasks outside of sessions, so we typically began each session by talking about and completing the S.T.I.C. task worksheet together. There was one day (during Session 6) when he refused

to do the S.T.I.C. task. His teacher reported he had been having a “rough day,” and we decided to just skip the S.T.I.C. task for that day and move on to get through the session. The *Coping Cat* program calls for a schedule of delayed reinforcement using rewards for S.T.I.C. task completion, but because Dawson’s motivation to complete work in school was already problematic, I allowed him to choose one or two rewards from a prize box at the end of each session contingent on his participation. He received one or more rewards after each of the eight sessions.

The first five sessions were conducted in a corner of the special education resource room with other students and a special education teacher in other areas of the room. The remaining three sessions were conducted in an empty classroom to reduce distractions and increase privacy, which was of concern during exposure sessions.

Dawson’s behaviors were rated across five target behaviors on a scale of 1-3. Daily behavior ratings were completed by Dawson’s special education teacher or a paraprofessional at the end of each school day with Dawson present, and thus data was supplied by different people on different days. The adult who made the rating discussed the rationale for the ratings with Dawson to make sure he understood each rating, such as getting a 2 rather than a 3 for Kind Voice due to yelling or swearing in school. The ratings were entered using one sheet for each week with ratings recorded each day Dawson attended school. The sheets were collected at the end of each week and placed in a progress monitoring binder in the special education classroom.

CHAPTER IV

RESULTS

Progress monitoring data was collected by referencing the daily behavior rating system that had been in place for Dawson since the beginning of the semester. The independent variable was the intervention (the *Coping Cat* program) and the dependent variable was Dawson's behavior, as measured by daily behavior ratings (Appendix A).

Average Behavior Ratings

A mean of ratings collected from before, during, and after the intervention were analyzed using comparison of means, variability of ranges, and analysis of step changes in level and percentages of ratings (see Table 1 means and ranges). Figures 1-6 were used for visual analysis of level changes.

Table 1 shows Dawson's mean behavior ratings during baseline (N = 45 days), treatment (N = 15 days), and post-intervention (N = 19 days) phases of the *Coping Cat* intervention on a scale of 1-3. Definitions of values for each number on the scale were 1= I had a tough day, I need to work harder to make my day better tomorrow; 2= I needed a few reminders, but I was able to get myself back on track; 3= I did this perfectly and I did not need any reminders. I had a ROCKSTAR day!!

Table 1*Dawson's Daily Behavior Ratings Before, During, and After Coping Cat*

Target Behavior	<u>Baseline</u> N = 45 days		<u>Treatment</u> N = 15 days		<u>Post-Intervention</u> N = 19 days	
	Mean	Range	Mean	Range	Mean	Range
1. Hands to Self	2.56	1-3	2.67	1-3	3.00	3-3
2. Kind Voice	2.40	1-3	2.87	1-3	2.79	2-3
3. On Task	2.82	1-3	2.67	2-3	2.84	2-3
4. Turned in Assignments	2.96	2-3	2.87	2-3	2.95	2-3
5. Controlled Talking	2.62	2-3	2.67	1-3	2.89	2-3

The range of baseline data compared to the range in post-intervention data demonstrated a decrease in variability for Hands To Self, Kind Voice, and On Task, with a range of 1-3 before the intervention to all 3s after the intervention for Hands to Self, and from a range of 1-3 before intervention to a range of 2-3 after intervention for both Kind Voice and On Task. The percentage of days with ratings of a 1 also demonstrate improvement with the intervention. Hands To Self was rated at a 1 15.56% of days during baseline, 13.33% during intervention, and zero post-intervention. For Kind Voice, the percentage of days when Dawson was rated 1 during baseline was 15.56%, dropped to 0.06% during the intervention, and to zero post-intervention. Dawson's On Task, Turned in Assignments, and Controlled Talking ratings were 1 essentially zero percent of the time across baseline, treatment, and post-intervention phases.

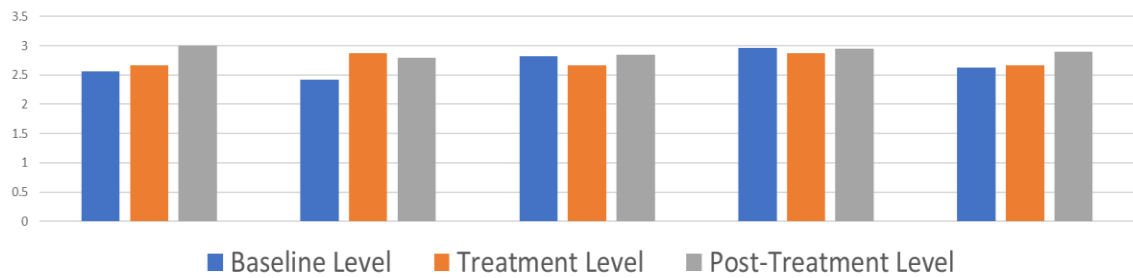


Figure 1. Mean rating by target behavior within phase

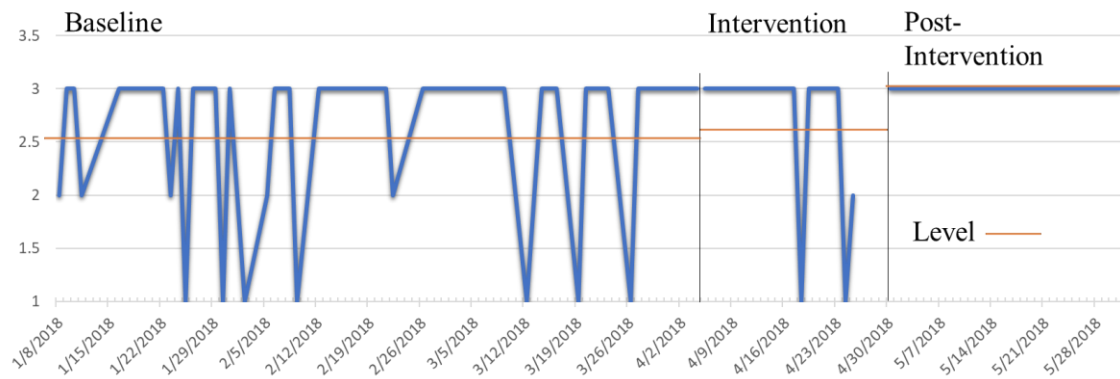


Figure 2. DBR data ratings of the target behavior Hands To Self for each school day for Baseline, Intervention, and Post-Intervention

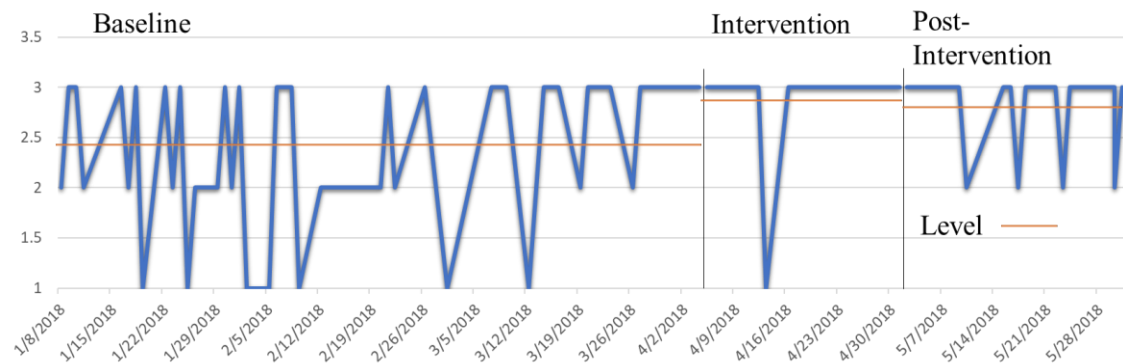


Figure 3. DBR data ratings of the target behavior Kind Voice for each school day for Baseline, Intervention, and Post-Intervention

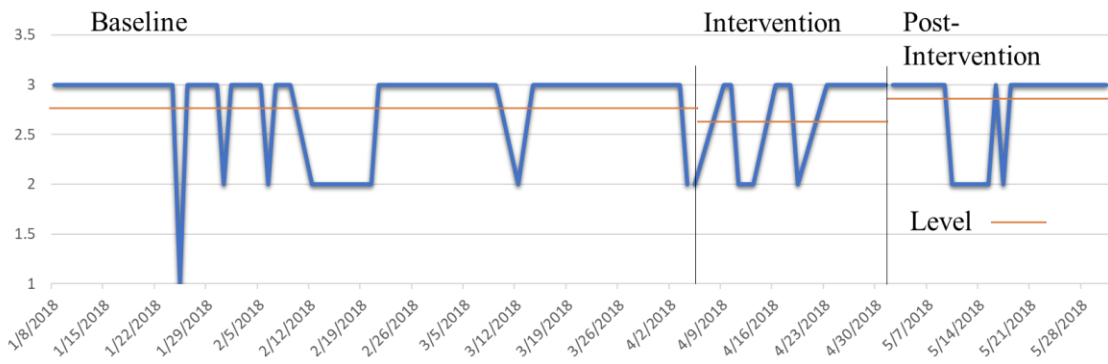


Figure 4. DBR data ratings of the target behavior On Task for each school day for Baseline, Intervention, and Post-Intervention

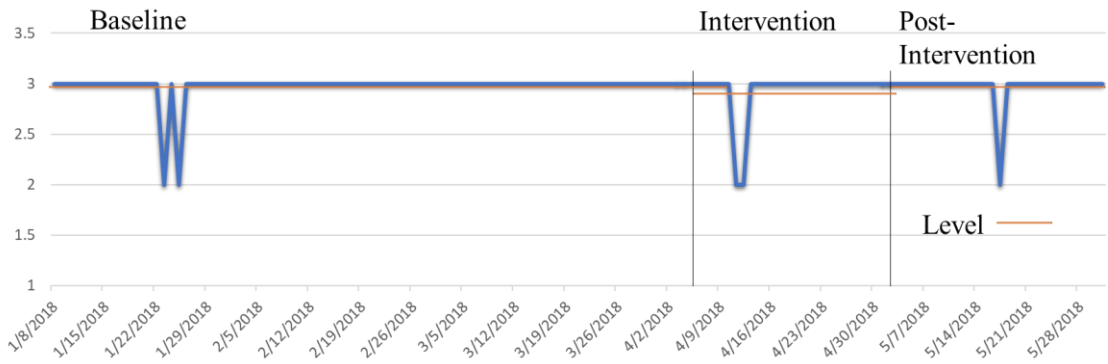


Figure 5. DBR data ratings of the target behavior Turned In Assignments for each school day for Baseline, Intervention, and Post-Intervention

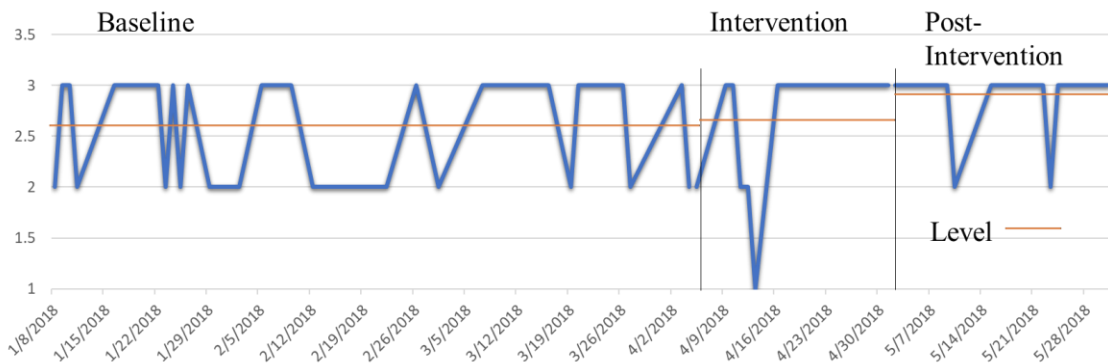


Figure 6. DBR data ratings of the target behavior Controlled Talking for each school day for Baseline, Intervention, and Post-Intervention

Figures 1-6 were used for visual analysis of level and step changes between phases. Analysis of the data was conducted using a comparison of means. Dawson's mean ratings for "Hands to Self," "Kind Voice," and "Controlled Talking" demonstrated improvement from baseline to treatment and continued to improve after the intervention ended. His mean rating for "On task" dropped slightly during the treatment phase then returned to near baseline level in the reversal phase. His ratings for "Turned in Assignments" also dropped slightly during the treatment phase, then returned to near baseline levels after the intervention ended.

An encouraging element of study results was in the qualitative data collected during Lesson 7 on 4/24/18. On that day Dawson told me about an incident he experienced in gym. A peer said, "hey dummy!" to Dawson, and he explained that it made him feel mad. He said the boy then pushed him on their way out of gym, and then Dawson felt "really mad". We talked about what happened in the context of the F.E.A.R. framework. Dawson identified that when the boy said he was a dummy, he felt "shaky" and "scared" and thought that "maybe I'm just stupid and everybody hates me." We talked about how those thoughts related to the Feeling Frightened and Expecting Bad Things to Happen concepts from the *Coping Cat* program, and about a different thought he might have that would have helped him feel better, which correlates with the Attitudes and Actions that can help step of the *Coping Cat* program. We discussed it at length, and it was hard for him to come up with, but Dawson did eventually identify that he could have thought about that he is good at football and bowling and his family loves him and he has friends. We talked about how the Results and Rewards of the situation might be

that after he thought about it, he didn't feel mad anymore and could still have a good day the rest of the day.

Although he earned a rating of 2 for Hands to Self in the conflict with a peer, Dawson demonstrated his ability to use the skills he learned in the Coping Cat program to deal effectively with a stressor, recover from a setback, and earned ratings of 3 in all other categories for the day. Prior to the intervention when he earned a 1 for Hands to Self, Dawson often also earned lower scores in Kind Voice, On-Task, and/or Controlled Talking. After the event on 4/24/18, Dawson earned ratings of 3 every day for the rest of the school year in the category of Hands to Self. In the data collected after the intervention, Dawson's ratings in all categories did not go below a 2.

Social Validity Interviews

Social validity was assessed via interview with both Dawson and his special education teacher. When asked what he thought of the sessions using the *Coping Cat* program, Dawson claimed the treatment "helped." When I asked Dawson to explain what he learned to his teacher, he showed her a FEAR card he made and was able to correctly explain the steps and how one can use them when one feels scared and "shaky" to "think different thoughts that might end up with a better result." When asked if he thought he would use the F.E.A.R. acronym in the future, he responded "yes, definitely." At the last session, after we made slime and said goodbye, Dawson gave me a big hug and said he was going to miss our time together.

Dawson's special education teacher said she thought the program was "appropriate and helpful" for Dawson, saying it was "right up his alley." She also said

she would like to see more interventions like this done by school psychologists in the schools.

CHAPTER V

DISCUSSION

This project examined the use of a brief version of CBT therapy using a manual-based intervention program called *Coping Cat* with a 10-year-old boy in an elementary school. The goal of the intervention was to reduce anxiety as measured by daily behavior ratings in the areas of using a kind voice, keeping hands to self, using a kind voice, staying on task, turning in assignments, and controlled talking. Results indicated improvement in the mean behavior ratings of keeping hands to self, using a kind voice, and controlled talking. The ratings for staying on task and turning in assignments did not demonstrate meaningful change.

Limitations

The raters who supplied data were different people on different days, typically either Dawson's paraprofessional or special education teacher. There were two days when a "0" rating was entered, which was incorrect as the scale was set at 1-3. After discussion and consultation with Dawson's teacher, those data points were calculated as 1 because they resulted from behaviors (such as hitting a peer at recess and repeatedly using swear words in school toward adults) that should have been rated a 1 according to the scale. Preintervention training for all raters might have improved the validity of the data collected (Burns, Riley-Tillman, Rathvon, 2017).

Other methods of data collection such as anxiety specific measurement tools before and after treatment could potentially have provided a clearer picture of where Dawson's externalizing, internalizing, and adaptive behaviors were rated and whether measurement demonstrated clinical or at-risk levels of behavior problems on a norm-referenced and standardized instrument before and after intervention, but such measures were beyond the scope of this project. Although daily behavior rating data is commonly used in schools, if I were to repeat this study, I would consider using a standardized instrument which measures anxiety symptoms to monitor progress in addition to daily behavior ratings. According to the DSM-5 (American Psychiatric Association, 2013), anxiety symptoms include restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbance. If I were to repeat the study, I would want to design a DBR form to more directly reflect each of these anxiety symptoms.

I did not do integrity checks during the intervention phase of this study, which I regret. Assessment of treatment integrity during the treatment phase would improve internal validity (Burns, Riley-Tillman, Rathvon, 2017), which is the ability to trust that the administration of the *Coping Cat* intervention aligned consistently with the way the treatment is intended to be administered by the authors and on which studies of the program showing it was effective were based. I was unable to find an integrity checklist provided by the authors, so if I were to repeat the intervention, I would request assistance from the special education teacher or another school psychologist to observe sessions and monitor treatment integrity using a checklist procedure or simply comparing procedures used to those describes in the *Coping Cat* manual. Although delivering the intervention

the way it is designed is important, Beidas et al. (2010) suggested therapists should consider “flexibility within fidelity” when using a manual-based CBT program, adapting elements as needed to effectively communicate the content of the *Coping Cat* program, and that is what I did with Dawson.

It is possible that the improvements noted in the data reflect a general pattern of behavioral improvement for Dawson that resulted from his current education programming or some other confounding factor rather than the *Coping Cat* intervention. To make a stronger case for whether the *Coping Cat* program is effective for students with anxiety disorders, I would have needed a control group of students with diagnosed anxiety disorders, such as using a group placed in a waitlist condition like Kendall (1994) did. I would possibly prefer children without comorbid conditions because they might further confound the data results. I would consider using multiple treatment conditions such as no treatment, treatment with medication, treatment with *Coping Cat*, treatment with *Coping Cat* and medication to try and provide some clarification about which treatment condition seems to work best.

After the conclusion of my work with Dawson, I learned of a published version of *Coping Cat* by Kendall, Rinad, Beidas, Mauro (2013) which condensed the 16-session version into 8 sessions. If I were to do the intervention again in a short timeframe, I would most likely prefer to use the version condensed by the authors because that would remove the burden of choosing what to prioritize, and because the author’s version would be more likely to have been evaluated for effectiveness prior to publication. I would also use the training videos provided by the publisher to increase fidelity of the intervention.

Final Summary

Coping Cat was designed to reduce problematic anxiety in children ages 7-13, like Dawson. The results appear to support the conclusion that Dawson's problem behaviors of not keeping his hands to himself, not using a kind voice, and controlling his talking were improved with the brief *Coping Cat* CBT treatment. The data does not clearly indicate whether the other problem behaviors improved significantly with treatment. It is possible the behaviors that appear to show gains from treatment might have improved due to other factors, such as nicer weather in springtime, or events outside of school. It is also possible the intervention did cause improvement in some of Dawson's behaviors but not in other areas. The target behaviors of Kind Voice, Hands to Self, and Controlled Talking might have been related to Dawson's ADHD or ODD rather than his anxiety but might also have improved due to anxiety treatment. The behaviors that did not show change or improvement were Turned in Assignments and On Task, respectively. These behaviors might have been unaffected by treatment, have been unrelated to Dawson's anxiety at the outset, might require more intensive treatment to show change, or might have been as well supported as possible in Dawson's current programming.

The results of this intervention appear to support the use of BIC interventions in the school setting to reduce anxiety and problem behaviors associated with anxiety. The *Coping Cat* program can be used by anyone. It might be more effective if student anxiety were measured with an instrument that specifically measures anxiety, such as the MASC-2 (MHS Assessments, 2018), which could be administered and scored by a professional

with a Master's degree in a related field (such as school psychology) who has training on ethical scoring, administration, and interpretation of assessment results. Assessing specific anxiety symptoms would allow a school to use a BIC form of *Coping Cat* only on those students who have a documented need for anxiety coping skills and follow up anxiety assessment would allow for comparison of symptoms before and after the intervention. Crawley et al. (2013) found that an 8-session version of *Coping Cat* can benefit students, eliminate common barriers to treatment, and could be provided in schools. The findings of this study suggest the use of a brief version of *Coping Cat* in the school setting to treat anxiety might reduce somatic anxiety symptoms such as shaky hands and stomach aches (Reigada et al., 2008) as well as improve externalizing behaviors such as keeping Hands to Self, a Kind Voice, and Controlling Talking.

It is not possible to say with absolute certainty that *Coping Cat* intervention caused the improvements noted in Dawson's mean scores, however the data does appear to show a positive relationship between the intervention and improved ratings. Horner et al. (2005) reported three demonstrations of change in the predicted direction support the conclusion that the dependent variables, in this case the ratings of problem behaviors related to anxiety, were influenced or changed by the independent variable, here the implementation of a brief version of the *Coping Cat* intervention.

The results of this study do support that it is possible to provide anxiety treatment using BCBT in the school setting. Brief cognitive behavioral treatments are beneficial and can be as effective as regular CBT treatment interventions (Öst & Ollendick, 2017). Information from the literature review supports the conclusion that providing BCBT

treatment in schools using a manualized program like *Coping Cat* can help overcome barriers to treatment and provide children with evidence-based therapy. More research is needed on using *Coping Cat* with children with anxiety disorders in schools to understand how often we might expect the *Coping Cat* intervention to be effective in improving behaviors when used in a brief form.

In spite of limitations and things I would do differently if I were to do the intervention in the future, the suggestion from the data that the intervention might have helped Dawson decrease anxiety symptoms and function more appropriately in school is gratifying. The most encouraging element was the qualitative data collected on 4/24/18, when Dawson demonstrated use of the skills he learned in the *Coping Cat* intervention to deal more effectively with a stressor and to recover from a setback. The apparent success of using *Coping Cat* for a student with anxiety and behavior problems in schools is inspiring. Due to all I learned in the process of this project as well as the experience of seeing Dawson improve during and after intervention, I will consider anxiety reduction strategies as an important element of educational programming for students with anxiety and behavior problems in the future.

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APPENDIX A

Behavior Checklist

The behaviors that are listed below are behaviors that I can control. When I show the appropriate behavior my classmates feel good about being my friend, my teacher feels good about my decisions, but most importantly...I feel good about myself!

Directions: At the end of the day you will evaluate your behavior.

3. I did this perfectly and I did not need any reminders. I had a ROCKSTAR day!!

2. I needed a few reminders, but I was able to get myself back on track.

1. I had a tough day, I need to work harder to make my day better tomorrow.

	Monday	Tuesday	Wednesday	Thursday	Friday
1. I kept my hands, feet and objects to myself. I played safe at recess and wasn't too rough.					
2. I spoke in a kind voice to everyone. I wasn't mean to anyone. I didn't use swear words.					
3. I paid attention to all lessons and directions. If I needed help I raised my hand. I stayed on task. I did not blurt.					
4. I turned in all of my homework and class assignments that were due.					
5. I controlled my talking by: Not talking during instruction; Raising my hand to ask a question; Speaking softly or whispering; Being quiet when asked; Not talking in the halls.					

My thoughts about my week (Reflection)

_____ I had a great week!

_____ My week was good, but I can do better.

_____ I had a tough week. I will do better next week!

Next week, my behavior goal is:

Teacher Comments
