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Assessing and Treating Child Anxiety in Schools

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Abstract

Anxiety disorders in youth are common and, if left untreated, can lead to a variety of negative sequelae. Randomized clinical trials have demonstrated that cognitive-behavioral therapy (CBT) is an efficacious treatment for anxiety disorders in youth with preliminary evidence showing that CBT can be successfully transported into schools. The present article provides (a) a discussion of the inherent challenges and advantages of implementing CBT in the school setting, (b) methods used to identify anxious youth, and (c) key components of CBT for anxious youth with an emphasis on adaptation and application in the school environment. Future research directions are discussed. The successful integration of a flexible CBT approach into the domain of school mental health would be a favorable step toward effective dissemination and would ensure the enduring provision of evidence-based practice to children and adolescents struggling with anxiety.

Anxiety disorders are common in youth, both in 12-month prevalence estimates from the general population (Kessler, Chui, Demler, & Walters, 2005) and across the lifespan (28.8%; Kessler, Berglund, Demler, Jin, & Walters, 2005). Research indicates that 10 to 20% of children in the general population and primary care settings report distressing levels of anxiety (Chavira, Stein, Bailey, & Stein, 2004; Costello, Mustillo, Keeler, & Angold, 2004). The present paper focuses on three of the most prevalent anxiety disorders in youth: (a) separation anxiety disorder (SAD), (b) generalized anxiety disorder (GAD), and (c) social phobia (SoP). SAD is characterized by inappropriate and excessive anxiety regarding separation from home/caretakers. GAD is characterized by excessive and persistent anxiety and worry across a number of domains (e.g., school, health of loved ones) that is difficult to control and is associated with physical symptoms (e.g., muscle tension). SoP is characterized by a marked and persistent fear of performance or social situations due to social evaluation.

SAD, GAD, and SoP are typically treated similarly and researched collectively in youth (e.g., Crawley, Beidas, Benjamin, Martin, & Kendall, 2008; Walkup et al., 2008). They are highly comorbid with one another (Kendall et al., 2010) and have been conceptualized as sharing an underlying anxiety construct (e.g., Pine & Grun, 1998). Anxious children commonly avoid age-appropriate situations and social interactions necessary for healthy development. Difficulties in social relations are common (e.g., Verduin & Kendall, 2008), as

are impairments in school functioning (e.g., Mychailyszyn, Mendez, & Kendall, 2010). Untreated anxiety symptoms worsen over time and can be associated with a host of negative sequelae, including later anxiety, depression (e.g., Angold, Costello, & Erkanli, 1999), suicidal attempts and ideation (e.g., Rudd, Joiner, & Rumzek, 2004), and substance use (e.g., Lopez, Turner, & Saavedra, 2005). The early identification and treatment of anxiety disorders in youth is critically important for improving current functioning and protecting long-term health.

Randomized clinical trials (RCTs) have demonstrated the efficacy of cognitive-behavioral therapy (CBT) for anxiety-disordered youth. The *Coping Cat* program (Kendall & Hedtke, 2006a; 2006b), provides an illustrative example of a 16-session manualized CBT program for anxious youth. The first eight sessions focus on psychoeducation and skill acquisition whereas the last eight sessions focus on exposing the child to anxiety provoking situations while using the previously learned skills. The initial RCT found that 64% of youth treated with the *Coping Cat* no longer presented with their baseline principal anxiety disorder at posttreatment and gains were maintained at one-year and follow-up (Kendall, 1994). A second larger RCT (Kendall et al., 1997) obtained similar results, with a 7.4-year follow-up finding that the majority of successfully treated children demonstrated maintenance of gains and reduced substance use compared to youth who were not successfully treated (Kendall, Safford, Flannery-Schroeder, & Webb, 2004). A third RCT (Kendall et al., 2008) compared individual CBT (ICBT), family CBT (FCBT), and an active family-based education/support/attention (FESA) condition, with significantly more children in the CBT conditions than the FESA condition no longer meeting diagnostic criteria at posttreatment. The relative and combined efficacy of CBT and sertraline was examined in a large multisite RCT (Walkup et al., 2008) among 488 children with SAD, GAD, and/or SoP, with results suggesting that the combined treatment, and each of the monotherapies, can be successful in reducing distressing anxiety in youth. Overall, these and similar studies document the efficacy of CBT for anxiety-disordered youth. When judged according to the criteria for an empirically supported treatment (EST; Chambless & Hollon, 1998), the literature provides such an endorsement (e.g. Silverman, Pina, & Viswesvaran, 2008).

Efforts have been made to examine how ESTs can be successfully implemented in non-research settings, such as schools (Owens & Murphy, 2004). Issues of transportability, or the degree to which ESTs work when implemented in community contexts (Schoenwald & Hoagwood, 2001), have been raised. The achievement of transportability requires a “bridging of the gap,” also termed “translating science into practice” (Chorpita, 2003). This effort entails a move from “efficacy” to “effectiveness” (Schoenwald & Hoagwood, 2001) or from “research therapy” to “clinic therapy” (Weisz et al., 1995). The former (in each case) often tests the intervention with homogeneous (though complex) samples and clinicians well-trained in the use of manual-based treatment. The latter evaluates applications of efficacious treatments in community settings where such resources are commonly lacking.

The last 15 years have seen an increase in the number of transportability efforts devoted to investigating the effectiveness of CBT delivery in the school setting (e.g., *Cool Kids* program, Mifsud & Rapee, 2005) and results suggest promising results for the transportability of CBT to school settings. An early study, based on an Australian

modification of the *Coping Cat* delivered by clinical psychologists in schools, found that youth in the intervention group significantly differed from those in the control group at 6-month follow-up, as youth in the intervention group continued to improve after posttreatment whereas those in the control group lost previously made gains (Dadds, Spence, Holland, Barrett, & Laurens, 1997). Other investigations have examined who can deliver CBT for anxiety; studies have reported that interventions led by teachers and school nurses showed comparable reductions in anxiety when compared to interventions led by psychologists (Barrett & Turner, 2001; Stallard et al., 2005). Additionally, intervention protocols specifically tailored for the treatment of particular anxiety disorders within the school setting have been developed. For example, an intervention for adolescents with SoP in the school setting found that, by posttreatment, 59% of youth treated with CBT compared to 0% in an attention-control group no longer met diagnostic criteria for SoP (Warner, Fisher, Shrout, Rathor, & Klein, 2007). These results provide encouraging evidence that CBT can feasibly be delivered in schools with promising results, though recent reviews of the literature indicate that greater research attention to school-based CBT is warranted (Silverman et al., 2008).

The School Context

The dissemination of ESTs within school systems would represent a considerable step forward in the provision of mental health services to youth. However, obstacles exist (Owens & Murphy, 2004; Weisz et al., 1995) and difficult questions must be addressed. For instance, Schoenwald and Hoagwood (2001) have asked: What is the intervention? Who can implement it? Under what circumstances? And to what effect? These are challenging questions for researchers and school mental health workers alike and have yet to be sufficiently answered.

On the other hand, numerous advantages make schools an ideal setting for addressing the mental health needs of children and adolescents. First and foremost, schools are the most youth-accessible location because this is where children spend large portions of their time. From an ecological contextual perspective (Bronfenbrenner, 1979), schools constitute an important part of a child's microsystem, serving as one of the most proximal environmental influences in a youth's life. As such, the school setting provides the opportunity to maximize access to youth. When schools provide mental health services they help to remove common obstacles that can otherwise prevent youth from receiving care.

Schools are a primary setting in which youth display impairment (Ginsburg, Becker, Kingery, & Nichols, 2008). For anxious youth, many of the situations that cause disorder-related interference are interwoven within the school experience. For instance, anxious youth may be apprehensive about separating from parents to attend school, concerned about social interactions among peers, and/or worried about academic evaluation or performance (McLoone, Hudson, & Rapee, 2006). School-based interventions are thus uniquely poised to enhance generalizability by encouraging practice and fostering growth in the very situations that reflect difficulty. Additionally, schools are often comprised of diverse populations with heterogeneous presenting difficulties. These factors contribute to schools having "ecological

validity” (Owens & Murphy, 2004) that allows treatment benefits to be realized in the environment that is both clinically and practically meaningful.

Among children identified with mental health problems, only 20 to 50% access services, a large portion of which is provided by schools (Farmer, Burns, Phillips, Angold, & Costello, 2003). As such, the naturalistic setting of schools may have the capacity to reduce the stigma that can accompany mental health treatment in the community (Storch & Crisp, 2004). Such a benefit can increase access to care, as some research suggests that youth are more likely to utilize school-based services than those that are offered through traditional mental health clinics (Anglin, Naylor, & Kaplan, 1996).

Assessment of Anxiety in Youth

The gold-standard of assessment is a multimethod, multi-informant approach (i.e., the collection of information from a variety of individuals and in a variety of modalities). This approach permits a thorough evaluation of presenting symptoms and resulting impairment.

Interviews

Interviews are the most common method for assessing childhood disorders in general and anxiety specifically, ranging in format from unstructured to highly structured. Where possible, the structured or semi-structured diagnostic interview is recommended. In the school setting, however, a thorough diagnostic interview, such as the Anxiety Disorders Interview Schedule for Children–Child and Parent Versions for DSM-IV (ADIS-C/P; Silverman & Albano, 1997), may not be feasible. In such cases, the use of psychometrically sound self-report questionnaires and/or teacher/parent rating scales may be a valuable initial screen to assess distressing levels of anxiety and other emotional and behavioral difficulties.

Child Self-Report Measures

Self-report inventories can be a cost-effective tool for measuring anxiety, allowing respondents to endorse anxiety symptoms quickly and discretely with less concern about another individual’s immediate judgment. A drawback to questionnaires is that they are insufficient on their own to determine diagnoses, though the extensive samples on which measures are normed provides a backdrop against which to determine if a child is experiencing developmentally typical or problematic levels of anxiety. Commonly used anxiety-specific questionnaires include the Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings, & Conners, 1997), the Spence Children’s Anxiety Scale (SCAS; Spence, 1998), and the Revised Children’s Manifest Anxiety Scale (RCMAS-2; Reynolds & Richmond, 1997). A more general assessment measure – the Behavior Assessment Scale for Children-2nd edition (BASC-2; Reynolds & Kamphaus, 2004), is also frequently used in school settings, as it assesses comorbid conditions in addition to anxiety, as well as social and adaptive domain skills. When judged against normative data provided by scale developers, these measures can be very informative. However, interpretation of self-reports from children requires caution: such measures may not capture a child’s idiosyncratic concerns, younger children may not be able to understand

the questions or their corresponding response scales, and anxious children may respond in a socially desirable manner due to fear of negative evaluation.

Parent and Teacher Rating Scales

The impact of a child's anxiety can also be assessed by gathering the perspectives of caregivers and teachers. Examples include: the Child Anxiety Impact Scale-Parent Version (CAIS-P; Langley, Bergman, McCracken, & Piacentini, 2004), a useful measure of anxiety's influence on functioning (Langley et al., 2004); the Behavior Assessment Scale for Children-2nd edition (BASC-2; Reynolds & Kamphaus, 2004), a broad-ranging parent- and teacher-report measure for rating youth behaviors and emotions; the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001), a parent rating scale of behavioral problems and social competence; and the Teacher Report Form (TRF; Achenbach & Rescorla, 2001), an analogue to the CBCL allowing teacher-assessment of the child's classroom functioning. The perspective of an adult (parent, teacher) who has had extensive experience with the child can be very informative. Nevertheless, interpretation of these measures also requires some caution. Parents may not be fully aware of the extent of their child's anxiety, as observable anxiety symptoms may occur outside of parents' visibility, such as at school or when interacting with peers (Comer & Kendall, 2004). Parents may under-report due to lack of awareness of their child's symptoms or by providing socially desirable answers. Conversely, parents who are prone to anxiety themselves may over-report their child's anxiety symptoms (see Frick, Silverthorn, & Evans, 1994). Teacher ratings can be discrepant from parent and child reports, with teachers reporting fewer internalizing symptoms than youth and their parents do (e.g., Verhulst & Akkerhuis, 1989) as the associated distress and impairment may be less readily observed in classroom settings.

Behavioral Observations

Behavioral observation, conducted throughout the assessment process, provides very useful information. An interviewer, for example, will have a meaningful amount of time to observe the child first hand. School staff, following training, are poised to gather this type of data given that behavioral observations are easily gathered in the school setting. Parent and teacher observations of the child's behavior in various contexts may be helpful, though they may be limited by observer bias and may be impacted by a lack of training regarding anxiety.

Though time consuming, the structured diagnostic interview provides valuable information for the identification of an anxiety disorder in youth. Given that no single assessment tool captures all facets of the child experience of anxiety, we recommend a multi-method, multi-informant approach.

Treating Youth Anxiety

As stated earlier, the *Coping Cat* (Kendall & Hedtke, 2006a; 2006b) will be the illustrative program for child anxiety. The *Coping Cat* blends cognitive and behavioral strategies to help youth cope with anxiety. The 16-session *Coping Cat* treatment (14 sessions with the youth and two with the parents; parents can also be included in the exposure tasks) is guided by a

therapist manual (Kendall & Hedtke, 2006a) and uses a child workbook (Kendall & Hedtke, 2006b). The goal is not to “cure” anxiety but rather to teach youth adaptive ways to manage it. The therapist serves as a “coach” who guides the youth to develop skills to manage anxiety and in the practice of the use of these skills. The therapist “normalizes” the experience of anxiety, emphasizing that everyone experiences anxiety at times, but noting that some individuals experience it too often or too intensely.

The *Coping Cat* is divided into two sections: (a) psychoeducation and (b) exposure to anxiety-provoking situations. During psychoeducation (i.e. the first eight sessions), youth learn how to identify and cope with their anxiety. To assist in learning, youth are taught the FEAR plan, an acronym summarizing the different strategies involved in the management of anxiety. The “F” step (i.e. **F** Feeling frightened?) focuses on identifying somatic reactions to anxiety. Youth learn to recognize when they are experiencing anxiety by using their own body reactions as cues. For instance, a racing heart does not mean that one is having a heart attack, but it can signal the presence of anxious arousal. Following the “F” step, youth are taught relaxation strategies to reduce somatic distress, such as diaphragmatic breathing and progressive muscle relaxation. The “E” step (i.e. **E** Expecting bad things to happen?) involves the identification of cognitions (expectations) that contribute to anxiety. Youth are taught to evaluate expectations and beliefs, challenge unhelpful ones, and generate adaptive “coping” thoughts. In the “A” step (i.e. **A** Attitudes and actions that can help), youth learn to problem-solve and think of alternative ways to handle anxiety-provoking situations. Finally, youth engage in the “R” step (i.e. **R** Results and rewards) during which they evaluate their attempts at coping and reward themselves for effort.

The FEAR plan is brought to life and applied during the second half of the program. Youth (with coaching from the therapist) develop a fear hierarchy (or fear ladder) on which they list anxiety-provoking situations from least to most anxiety-provoking. These situations are individualized to each child and serve as the basis for their “challenges” (i.e. exposure tasks). In a gradual progression (sessions 10–15), youth face their fears. During each challenge, youth use the FEAR plan. The goal of the challenges is for youth to experience success and mastery in facing their fears and managing their anxiety. Youth learn that they can survive feared situations despite anxious expectations and that their anxiety level decreases over time. Challenges most often take the form of *in vivo* exposure tasks, which involve live situations and interactions, such as reading aloud in front of a group of people. Challenges can also take the form of imaginal exposure tasks, which involve the child imagining a feared situation until the anxiety related to the situation decreases. In session 16, the *Coping Cat* concludes with the youth “showing off” what they’ve learned in treatment via self-made ‘commercials.’

Adapting CBT for use in School Settings

The demonstrated efficacy of the *Coping Cat* relies on studies of its application in clinical service-providing settings, so some modifications may be needed for implementation in a school setting. These modifications are suggested based on our experiences (Beidas, Edmunds, & Kendall, 2010), but they nevertheless require and merit research evaluation. Our work involved the transportation of the treatment into the schools and other settings for

delivery by guidance counselors, school social workers, and school psychologists. Our suggested adaptations focus on treatment features (e.g., scheduling sessions) rather than treatment content (e.g., FEAR plan) and emphasize “flexible” but faithful (Kendall & Beidas, 2007; Kendall, Gosch, Furr & Sood, 2008) application of the *Coping Cat*. We view schools as an ideal setting for transportation of CBT, though empirical evaluations in school settings are needed.

Treatment scheduling

Adaptations to treatment duration may be needed in school settings. In our work, most school staff who provided CBT to anxious youth in the school setting have stated that it was difficult to arrange to have regular 50-minute weekly sessions. Rather, they reported that 30 minutes, within the routine school schedule, was an amount of time they could devote to a treatment session. To adapt to such time constraints, it may be wise to schedule sessions more than once a week, dividing a session into two shorter sessions. If restricted to once a week, we suggest that during psychoeducation, service providers pick only one activity from the manual to engage in during the session. For example, when addressing “feelings” in the second session, therapists could select a game of feelings charades or creating a feelings collage, depending on which would be expected to be the most appealing to the youth.

Another concern for implementation in schools had to do with caseload. Some therapists noted that it would be difficult to work with an individual youth for 16 sessions. Although not yet evaluated fully, an 8-session version of the *Coping Cat* is in development (Kendall, Crawley, Benjamin, & Mauro, 2009). Given its briefer duration, we anticipate that this version will be less cumbersome and more easily transported to the school setting. Within the 8-session *Coping Cat*, psychoeducation is delivered within the first four sessions and exposure tasks are completed during the second half of treatment (sessions 4–8).

Parental involvement

Parents are, to varying degrees, involved in their child’s treatment for anxiety. Nevertheless, their involvement warrants further attention when CBT is provided in schools. When CBT is provided in a clinic, it is the parent(s) who generally take the actions necessary to procure treatment (i.e., calling the clinic, completing intake, bringing the child for assessment), and thus there is access to parental information to guide the assessment. When CBT is provided in schools, parental information (including consent) may be need to be gathered.

When a child receives treatment in a school setting, the lack of parents’ physical presence may be an issue. Although the role of parents in individual CBT for anxious youth has been inconsistent (see Barmish & Kendall, 2005), the gathering of data from parents when they bring a child for a weekly sessions provides access for quick check-ins and information gathering. Parents may need to be called, or communicated with via email, to assess the child’s progress and needs during treatment.

Two sessions of the *Coping Cat* explicitly call for parental consultation (i.e., Session 4 and 9). In our experience, if a school provider foregoes these parent sessions, important details regarding the treatment are not communicated. For example, one school staff had difficulty with a client completing therapy homework because the parent was not aware of the

assignments. Once the school staff member consulted with the parents, the problem was remedied. Accordingly, we do *not* recommend forgoing the parental consultation sessions. If it is impossible for parents to attend two sessions, we recommend at least one in-person parent session and one phone consultation. We also recommend that the parents be provided with a copy of the *Parent Companion* (Kendall, Podell, & Gosch, 2010) so that they can be informed about their child's treatment.

School staff as treatment providers

Treating extremely anxious (e.g. vomiting due to anxiety) or avoidant (e.g. anxious school refusal) children has also been raised as a concern during times when we have worked with school staff who were implementing the *Coping Cat*. Counselors stated that they lacked the time and resources to provide the needed level of care. Perhaps the solution lies within "stepped care," such that youth with more severe anxiety can be referred to an outpatient clinic specializing in CBT to provide the adequate dosage of care.

Additional concerns included (a) not having enough time to reduce the child's anxiety before returning to the classroom, and (b) the logistics of conducting exposure tasks in schools. It is recommended that anxious youth stay in contact with the feared situation until their anxiety rating (i.e., subjective units of distress [SUDS]), comes down by approximately 50%. A helpful suggestion is to save 5–8 minutes at the end of a session to conclude with a pleasant activity so that the child is not returning to the classroom in a high state of distress. Other possibilities include scheduling longer sessions for the exposure tasks or scheduling exposure tasks for after-school. When considering logistics in the school setting, we suggest being as creative as possible while remaining faithful to treatment principles (see Kendall et al., 2005). Our experience is that, after problem-solving difficulties around conducting exposures in the school-setting, school staff have been successful and effective in implementing the *Coping Cat* treatment.

Computer-Assisted CBT

The advent of computer-assisted CBT provides a promising innovation to facilitate the dissemination and sustainability of ESTs in schools. Given the structured and sequential nature of CBT, these treatments are readily translated into engaging computer programs (Selmi, Klein, Greist, Sorrell, & Erdman, 1990). Computer-assisted CBT has advantages including a user-friendly format for youth and school staff, built-in rewards (e.g., video game time), and video modeling of key treatment components and essential skills. Furthermore, computer programs may increase the transportability of efficacious treatment in a cost-effective manner (Greist, 1998; Kenardy, McCafferty, & Rosa, 2003).

Kendall and Khanna (2008a) developed "Camp Cope-A-Lot" (CCAL), a computer-based CBT for youth anxiety modeled on the empirically-supported *Coping Cat*. CCAL can be used in school and community settings where clinicians (e.g., school psychologists, guidance counselors, social workers) implement the treatment with identified anxious youth. As in the *Coping Cat*, the first half of the program consists of skill-building and the second half focuses on exposure to anxiety-provoking stimuli. Service providers (a.k.a. "coaches") assist youth with the acquisition of skills and reinforce their use during exposure tasks.

CCAL remains faithful to the tenets of CBT, facilitating active youth participation in treatment (i.e., practicing relaxation skills and cognitive restructuring, creating a hierarchy of feared stimuli, facing anxiety-provoking stimuli). Findings from a recent RCT (Khanna & Kendall, in review) support the feasibility, acceptability, and efficacy of the CCAL program; anxious youth receiving CCAL administered by community mental health practitioners with no prior training in CBT for child anxiety evidenced significantly better gains than youth receiving a computer-assisted education/support/attention control condition. Computer-assisted CBT programs, such as CCAL, offer an important tool to disseminate empirically supported treatments in the school setting, though further research is needed to explore the bounds of this possibility.

Future Directions

Just as the expanding ubiquity of computers offers exciting opportunities to extend CBT services to youth in schools, so too can it provide the chance for community practitioners to receive training in the delivery of CBT (e.g., CBT4CBT; Kendall & Khanna, 2008b). The development of such innovative treatment and training practices reflect recognition of the many demands placed on school staff, and strive to help ease such burdens by enhancing the accessibility of vital services. Social system changes are needed to equip schools with the resources necessary to meet the mental health needs of their youth populations. The methods described in this paper provide an illustrative guide to the manner in which a flexible CBT approach can begin to be implemented within school systems. A successful integration of this and similar interventions into the field of school mental health would be a favorable step toward effective dissemination, and would ensure the enduring provision of evidence-based practice to children and adolescents struggling with anxiety.

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