

STUDENTS WITH ANXIETY: IMPLICATIONS FOR PROFESSIONAL SCHOOL COUNSELORS

Anxiety is one of the most pervasive mental health concerns affecting students, yet a significant number of students with anxiety disorders remain underserved. If left untreated, anxiety can hinder students' personal/social, academic, and career development. The purpose of this article is to provide professional school counselors with helpful information about the etiology of anxiety disorders and brief, evidence-based prevention and intervention options. The authors discuss specific recommendations for the identification, assessment, and treatment of anxiety that fit within the unique school environment.

Anxiety is the most commonly diagnosed mental health issue for children and adolescents (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Essau, Conradt, & Petermann, 2002; Muris, Merckelbach, Mayer, & Prins, 2000). The hallmark symptoms of an anxiety disorder are persistent and debilitating fear or worry that impairs a child's functioning (American Psychiatric Association [APA], 2000) and exceeds what is considered developmentally normal (Keeley & Storch, 2009). Experiencing anxiety that is short-lived and representative of developmentally age-appropriate fears is common for children. According to the American Academy of Child and Adolescent Psychiatry (AACAP, 2007), infants have a developmental tendency to be fearful of loud noises and strangers. In early childhood, children may experience considerable distress when separated from a primary caregiver. Toddlers often have fears of the dark, monsters, or animals. Young school-aged children may be fearful of natural disasters or concerned about injury or death. Adolescents may worry about how they are perceived by others, their level of competency in school or other activities, and health concerns (AACAP, 2007).

Excessive fear and worry that meets the clinical criteria for an anxiety disorder is experienced by 10-20% of the general population of children (Dadds, Spence, Holland, Barrett, & Laurens 1997; Muris et al., 2000). Frequently occurring anxiety disorders in youth include phobias, generalized anxiety disorder, and separation anxiety disorder, whereas agoraphobia, posttraumatic

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stress disorder, panic disorder, and obsessive-compulsive disorder are less frequently diagnosed in children and adolescents (Costello et al., 2003).

Anxiety disorders can significantly impair children's social skills, academic success, (Langley, Bergman, McCracken, & Piacentini, 2004; Neil & Christensen, 2009; Wood, 2006) and emotional wellbeing (Ost & Treffers, 2000; Rapee, Schniering, & Hudson, 2009). For example, a child's ability to concentrate on important academic tasks and recall previously learned material may be impaired by physiological arousal, inordinate attention to a perceived threat, and excessive worry (Ma, 1999). An anxious child's ability to do well in school may also be compromised by somatic discomfort such as stomachaches, headaches, and nausea (Dorn et al., 2003; Hughes, Lourea-Waddell, & Kendall, 2008; Van Ameringen, Mancini, & Farvolden, 2003). Somatization can lead to poor school attendance and diminished school performance (Bernstein et al., 1997), which may adversely influence social skill development (Barrett & Heubeck, 2000; La Greca & Harrison, 2005; Langley et al., 2004). Research also indicates that children who report being bullied experience higher levels of anxiety and, conversely, children who experience higher levels of anxiety are more likely to report being bullied (D'Esposito, Blake, & Riccio, 2011; La Greca & Harrison, 2005; Storch & Masia-Warner, 2004). If left untreated, anxiety disorders increase the risk of depression, addictions, and suicidality for children and adolescents (Ost & Treffers, 2000). Sareen et al. (2005), for instance, found that anxiety is the most significant risk factor for suicidal ideation and attempts.

To help address the prevalence of anxiety and its deleterious effect on the academic, personal/social, and career development of students, this article first provides an overview of the etiology of anxiety disorders, including intrapersonal and environmental factors that may impact and/or reinforce symptomology. Second, a table lists

brief assessment instruments that school counselors may use to detect student anxiety and monitor treatment outcomes. Third, the authors discuss responsive services that can be realistically utilized within schools. These include prevention programs, individual and group counseling, play therapy, and computerized Cognitive Behavior Therapy (CBT) intervention programs. The article concludes with specific prevention and early intervention recommendations for professional school counselors.

RISK FACTORS FOR THE DEVELOPMENT OF CHILDHOOD ANXIETY

No single risk factor can universally account for the development of anxiety in children (Wood, McLeod, Sigman, Hwang, & Chu, 2003); however, empirical evidence indicates that several salient intrapersonal and environmental risk factors are associated with the development of clinical anxiety disorders in children and adolescents. Intrapersonal risk factors include behavioral inhibition (Hirshfeld-Becker et al., 2008), heightened physiological responding (Weems, Zakem, Costa, Cannon, & Watts, 2005), negative emotional-

with anxiety disorders in young people include anxious and overprotective parenting (van Brakel, Muris, Bogels, & Thomassen, 2006), mothers with depression (Field, Hernandez-Reif, & Diego, 2006; Pelaez, Field, Pickens, & Hart, 2008), and exposure to domestic violence (Briggs-Gowan et al., 2010; Litrownik, Newton, Hunter, English, & Everson, 2003).

Intrapersonal Risk Factors

Many studies indicated varying degrees of overlap in genetic and environmental contributions to anxiety (Eley & Stevenson, 2000; Legrand, McGue & Iacono, 1999; Thapar & McGuffin, 1995; Warren, Schmitz, & Emde, 1999). Twin studies indicated that 30-50% of the variance in anxiety is due to genetic influences (Clifford, Murray, & Fulker, 1984; Eley & Gregory 2004; Stevenson, Batten, & Cherner 1992; Thapar & McGuffin, 1995). According to Eysenck and Eysenck (1985), neuroticism, the biological temperamental contribution to anxiety, is evidenced in young children as behavioral inhibition, which is defined as a child's consistent tendency to display fear, restraint, or withdrawal from novel stimuli such as unfamiliar people, places, objects, or situations (Mian, Wainwright, Briggs-Gowan & Carter, 2011). Studies during the past 20 years have revealed that behavioral inhibition is a significant risk factor for the development of anxiety (Hirshfeld-Becker et al., 2008).

EXCESSIVE FEAR AND WORRY THAT MEETS THE CLINICAL CRITERIA FOR AN ANXIETY DISORDER IS EXPERIENCED BY 10-20% OF THE GENERAL POPULATION OF CHILDREN.

ity (Carthy, Horesh, Apter & Gross, 2009), emotional dysregulation (Carthy et al., 2009; Farach & Mennin 2007; Suveg & Zeman 2004), limited attention control (Muris, Meesters, & Rempelberg, 2006), and emotional self-efficacy (Suveg & Zeman, 2004). Environmental risk factors associated

Anxiety disorders are often characterized by hyperarousal in response to mildly threatening stimuli (Weems et al., 2005). Research has demonstrated that elevated amygdala responses (Thomas et al., 2001), sympathetic arousal (Beidel, 1991), and cortisol levels (Carrion et al., 2002) are associ-

ated with anxiety disorders in children. The amygdala plays a key role in physiological reactions such as elevated heart rate and the release of stress hormones. In a functional neuroimaging study, Thomas et al. (2001) found that in comparison to children without anxiety, anxious children experienced an exaggerated amygdala response when shown pictures of fearful faces. Findings also indicated a robust correlation between responsiveness of the amygdala and the degree of anxiety symptoms. Weems et al. (2005) found that elevated heart rate in response to threatening visual stimuli was associated with children's self-reports of anxiety. Carrion et al. (2002) found that children with posttraumatic stress disorder (PTSD) experienced elevated cortisol levels, which are associated with behavioral inhibition (Kagan, Reznick, & Snidman, 1988).

Much like behavioral inhibition, negative emotionality is a risk factor for the development of anxiety disorders (Shaw, Keenan, Vondra, Delliquadri, & Giovannelli, 1997). Negative emotionality, often associated with depression and other childhood psychopathology, is characterized by irritability, difficulty being soothed,

maintenance of anxiety disorders in children (Carthy et al., 2009; Suveg & Zeman 2004). Carthy et al. (2009) found that children with anxiety exhibited more intense and frequent emotional responses to mildly threatening stimuli and used less emotional regulation strategies than children who did not have anxiety disorders. Children with anxiety also tended to use anxiety suppressing techniques (Carthy et al., 2009), which diminished outward symptoms of anxiety but did not reduce the internal physiological experience associated with anxious feelings (Gross, 2002). For example, outwardly suppressing feelings of anxiety while taking a test does not actually diminish the experience of the anxious feelings and may increase the sympathetic activation of the cardiovascular system (Gross, 2002). Conversely, cognitive reappraisal that happens earlier in the emotional response process is more likely to transform anxious feelings and reduce physiological responding. Examples of ways for students to manage physiological reactions through Ellis' ABC model of reappraisal techniques are provided in the implications section of this article.

tion bias in that they are hyperattentive to threatening stimuli and have a tendency to show a negatively biased interpretation of seemingly neutral stimulus (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000; Vasey & MacLeod, 2001).

Another factor that is likely to influence emotional regulation is the degree to which a child feels capable of attenuating symptoms of anxiety (Suveg & Zeman, 2004). In a study comparing 26 children ages 8 to 12 years old with anxiety disorders to children without anxiety, Suveg and Zeman (2004) found that anxious children reported lower self-efficacy in regulating their anxiety and sadness. Children with diminished emotion-regulation self-efficacy may be less inclined to actively engage in adaptively managing emotions during anxiety-provoking situations. In fact, evidence suggests that individuals with anxiety have a tendency to suppress emotionally expressive behavior, which is likely to increase sympathetic activation of cardiovascular systems (Gross, 2002). In other words, the suppression of anxious feelings and behaviors does not lessen the internalized physiological experience of those feelings and may lead to diminished self-efficacy in managing emotionally arousing situations.

Environmental Risk Factors

Parenting. Although genetic and personality contributions to anxiety are moderate, environmental factors such as parenting practices also play a significant role in children's manifestations of anxiety (Muris & Broeren, 2009). Children with anxious parents are up to seven times more likely to develop anxiety than children of non-anxious parents (Turner, Beidel, & Costello, 1987). Research indicates that anxious parents are more likely to model interpretation bias (Muris, Steerneman, Merckelbach, & Meesters, 1996) and predict that their children will perceive stimuli to be threatening (Barrett, Rapee, Dadds, & Ryan, 1996). In studies utilizing direct observation and questionnaires,

IF LEFT UNTREATED, ANXIETY DISORDERS INCREASE THE RISK OF DEPRESSION, ADDICTIONS, AND SUICIDALITY FOR CHILDREN AND ADOLESCENTS.

and elevated negative emotional reactivity (Sanson, Hemphill, & Smart, 2004). Research indicates that anxious children demonstrate elevated negative emotional reactivity to stress-producing stimuli and have more difficulty using reappraisal methods to deescalate their emotional response when compared to children who do not have anxiety (Carthy et al., 2009).

Although research is in the early phases, emotional dysregulation, or a combination of heightened emotional responding and difficulty regulating emotional reactions, appears to play a pivotal role in the development and

Self-regulation of attention, or attention control, is the ability to concentrate on a particular task, thoughtfully process an experience, solve a problem, or purposefully shift attention from one stimulus to another. The gradual enhancement of attention regulation abilities throughout childhood and adolescence enables children to better self-regulate their emotions (Rueda, Posner, & Rothbart, 2004). Research reveals that children who struggle with anxiety are less capable of controlling or shifting their attention (Muris et al., 2006). Furthermore, anxious children demonstrate atten-

anxious parents have been shown to be more controlling (van Brakel et al., 2006), more critical (Hudson & Rapee, 2000), and selectively focused on negative outcomes than parents who are not anxious (Barrett, Rapee, Dadds, & Ryan, 1996). Parenting styles of depressed mothers are also considered potential contributors to the development and maintenance of childhood anxiety. Observational studies of depressed mothers' interactions with their children have shown depressed mothers to be withdrawn (Field et al., 2006; Pelaez et al., 2008), less nurturing (Pelaez et al., 2008), and more inconsistent (Gelfand & Teti, 1990) than non-depressed mothers. Rapee (2001) posited that a relationship exists between parents and anxious children that creates a maladaptive pattern in which parents of anxious children attempt to remediate their children's vulnerability by becoming overly involved. Their attempt to reduce their child's anxiety serves to diminish the child's autonomy, sense of self-efficacy, and perceived control over threats while reinforcing avoidance behaviors. Ultimately, the parents' response to their child's high level of arousal reinforces the child's perception that the world is a dangerous place from which the child needs protection (Rapee, 2001). In a recent review of publications over the past decade on parenting practices related to childhood anxiety, controlling parenting behaviors were most consistently linked to childhood anxiety (Wood et al., 2003). School counselors should be aware of this potential dynamic and be mindful not to recreate an interactional pattern that reinforces an anxious child's sense that the world is a scary place and he or she is limited in his or her ability to manage anxious feelings.

Intimate Partner Violence. Exposure to violence in childhood is associated with a wide range of developmental concerns that include but are not limited to anxiety disorders. Edleson (1999) reviewed 31 empirical studies that explored the relationship between exposure to intimate partner violence

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(IPV) and adjustment concerns for child-witnesses. This review revealed that, across studies exploring problems associated with exposure to IPV, findings consistently showed that child-witnesses exhibited anxiety and symptoms of posttraumatic stress disorder. In an attempt to examine the relationship between anxious, depressed, and aggressive problem behaviors and exposure to IPV, 682 children (ages 4 to 6 years old) and their mothers completed a battery of assessments that revealed that exposure to violence between intimate partners in the home was associated with symptoms of anxiety and depression and aggressive behavior problems (Litrownik et al., 2003). In a more recent study of 213 children 2 to 4 years old, Briggs-Gowan et al. (2010) found that exposure to violence was associated with an increased risk of separation anxiety and posttraumatic stress disorder.

ASSESSING FOR ANXIETY IN SCHOOLS

Anxiety disorders can often go unnoticed and the concomitant problems associated with student anxiety can easily get misinterpreted as a host of unrelated learning issues (e.g., hostility, poor performance, hyperactivity). As such, the authors recommend that professional school counselors utilize brief screening tests that can quickly identify students who are at risk of experiencing anxiety-related symptoms. Also, as is best practice in school counseling, interventions should include an assessment component to

determine the potential effectiveness of the interventions used. Information about commonly used measures for the assessment of anxiety symptoms is provided in Table 1.

SCHOOL-BASED PREVENTION AND INTERVENTIONS FOR STUDENTS WITH ANXIETY

Prevention Programs

The American School Counseling Association (ASCA) states that a vital element of a comprehensive school counseling program is the delivery of school-wide prevention programs that are comprehensive, developmentally appropriate, aimed at enhancing student achievement, and grounded in data that indicates a need for services (ASCA, 2005). Fortunately, research indicates that school-wide anxiety prevention programs are effective in reducing anxiety symptoms among students. The FRIENDS program is an evidenced-based, cognitive behavior therapy (CBT) prevention program offered through classroom guidance curriculums aimed at the prevention of anxiety symptoms (Barrett, Webster, Turner, & May, 2003). This manualized CBT prevention program, which is widely endorsed by the World Health Organization (2004), is an adaptation of the Coping Cat Curriculum created by Kendall (1994). Comparisons of pre- and post-test scores on anxiety revealed that children who participated

TABLE 1 BRIEF ANXIETY ASSESSMENTS THAT CAN BE USED BY SCHOOL COUNSELORS

Anxiety Assessment	Age in Years	Taken by	Completed in Minutes	Available
Beck Anxiety Inventory for Youth (BYI)	7-18	Student Parent Counselor	5-10	http://www.pearsonclinical.co.uk/Psychology/ChildMentalHealth/ChildMentalHealth/BeckYouthInventories-SecondEditionForChildrenandAdolescents(BYI-II)/BeckYouthInventories-SecondEditionForChildrenandAdolescents(BYI-II).aspx
Multidimensional Anxiety Scale for Children (MASC)	8-19	Parent Student	15	http://www.mhs.com/product.aspx?gr=edu&prod=masc2&id=overview
Revised Children's Manifest Anxiety Scale (RCMAS-2)	6-9	Student	10	http://www.proedinc.com/customer/ProductView.aspx?ID=1759
Self-Report for Childhood Anxiety Related Emotional Disorders (SCARED)	8-18	Parent Student	5	http://psychiatry.pitt.edu/sites/default/files/Documents/assessments/SCARED%20Child.pdf FREE
Social Anxiety Scale-Child Adolescent version (LSAS-CA)	8-14	Parent Student Counselor	20-30	Available by request from Carrie Masia-Warner, NYU Child Study Center, 215 Lexington Avenue, 13th Floor, New York, NY 10016 USA, carrie.masia@med.nyu.edu
Social Phobia and Anxiety Inventory for Children (SPAI-C)	8-14	Student	20-30	http://www.mhs.com/product.aspx?gr=edu&prod=spaic&id=overview
The Spence Children's Anxiety Scale	8-14	Parent Student	10	http://www.scaswebsite.com/index.php?p=1_6 FREE
Behavioral Assessment System for Children, Second Addition (BASC 2)	6-21	Parent Teacher Student	10-20	http://www.pearsonassessments.com/HAIWEB/Cultures/en-us/Productdetail.htm?Pid=PAa30000
The Child Behavior Checklist (CBCL)	6-18	Parent Teacher Student	15	http://www.aseba.org/

in the FRIENDS program exhibited significantly fewer anxiety symptoms than children in the control group at completion of the intervention (Barret & Turner, 2001; Lowry-Webster, Barrett, & Dadds, 2001) and at 12-month follow-up (Essau, Conradt, Sasagawa, & Ollendick, 2011). Results from these studies indicate that the FRIENDS school-wide prevention program is an effective approach to reducing anxiety symptoms experienced by children.

Individual Counseling

Cognitive behavioral therapy (CBT) for children and adolescents experiencing anxiety typically addresses the relationship between thoughts, feelings, behaviors, and physiological symptoms of anxiety; learning ways of reacting that lead to more desirable outcomes; instruction and practice of progressive muscle relaxation, guided imagery, and deep breathing; changing negative self-talk; cognitive restructur-

ing; exposure; assertiveness training; and problem-solving techniques. CBT strategies may include helping children with anxiety learn to identify and understand emotions, recognize potential triggers that may initiate negative emotions, and identify the type of regulation style they typically utilize to cope with those emotional reactions so antecedent responses can be developed, rehearsed, and improved (Carthy et al., 2009). Research shows that

anxious individuals have a tendency to experience emotions more quickly and intensely in the emotion-generation and regulation process (Mennin, Turk, Heimberg, & Carmin, 2004); therefore, an effective approach may be to help anxious children learn to develop a tolerance for emotional discomfort and to reframe emotional reactions from being undesirable and in need of being controlled to being a source of information that can help them interpret and make decisions (Decker, Turk, Hess, & Murray, 2008).

Research on the effectiveness of CBT with children with anxiety was initially sparked by Kendall's (1994) examination of the effectiveness of the Coping Cat Curriculum with 47 children (ages 9 to 13 years old) with an anxiety diagnosis who participated in either a 16-session CBT Coping Cat intervention or a waitlist control condition. Findings from pre- and post-treatment diagnostic evaluations revealed that 64% children who participated in the Coping Cat intervention no longer met diagnostic criteria for anxiety after a 1-year follow-up. In a follow-up study of 94 children (ages 9 to 13 years old) with an anxiety diagnosis, Kendall et al. (1997) found that 50% of the children who participated in the CBT Coping Cat program no longer met the diagnostic criteria for anxiety at the time of post-treatment evaluation and at a 1-year follow-up. A review of evidence-based treatments shows that at least 25 randomized control intervention studies have demonstrated that CBT is an efficacious intervention for decreasing a variety of anxiety disorders in children and adolescents (see Silverman, Pina, & Viswesvaran, 2008).

Although limited in nature, research also indicates that the academic performance and social development of anxious youth can be enhanced through CBT interventions. For example, Wood (2006) explored the effects of a CBT intervention on academic performance and social functioning for 40 children aged 6 to 13 years old. Findings revealed that children who

experienced a decrease in anxiety also demonstrated improvement in their school performance and social development (2006).

Related to improved academic performance, Ramirez and Beilock (2011) found that having ninth-grade students write about their test anxiety for 10 minutes immediately before taking final exams significantly improved test scores compared to control groups. Furthermore, habitually test-anxious students (high-test-anxious) in the expressive writing group significantly outperformed the high-test-anxious control group. The high-test-anxious expressive writing group also performed at or above the low-test-anxious students, suggesting that high-test-anxious students benefit most from the expressive writing intervention (Ramirez & Beilock).

ENVIRONMENTAL FACTORS SUCH AS PARENTING PRACTICES ALSO PLAY A SIGNIFICANT ROLE IN CHILDREN'S MANIFESTATIONS OF ANXIETY.

Group Counseling

In the school setting, group cognitive behavioral therapy (GCBT) is likely to be the treatment of choice for ameliorating childhood anxiety because it is evidence based and is a more efficient treatment modality than individual counseling. Furthermore, group counseling that is based on clearly evidenced school and community needs is deemed an essential element of comprehensive school counseling programs (ASCA, 2008). Pre- and post-test comparison studies consistently have shown GCBT to be effective in reducing the anxiety symptoms of children in treatment interventions in comparison to those in control or waitlist conditions (Barrett, 1998; Cobham, Dadds, & Spence, 1998). GCBT interventions that include some aspect of family involvement also have been shown to be helpful in reducing anxiety symptoms (Barrett et al., 1996). Many GCBT interventions can easily be adapted to include family

members and primary caregivers of children with anxiety.

Group Play Therapy Interventions

Emotional regulation and CBT strategies may be difficult to teach to young children. Instead, utilizing play therapy interventions may be more appropriate to help children who are preoperational in their cognitive development. Research with preschool-age and school-age children has shown a positive relationship between play, emotion regulation, and emotional competence (Lindsey & Colwell, 2003; Russ & Schafer, 2006).

Intervention studies have shown that play can reduce anxiety in young children (Baggerly & Jenkins, 2009; Shen, 2002; Wettig, Coleman, & Geider, 2011). For example, Shen (2002) investigated the potential effectiveness of

play therapy group on reducing levels of anxiety and depression for elementary-age children in Taiwan who experienced an earthquake in 1999. Upon completion of the intervention, the experimental group scored significantly lower than the control group on self-reported anxiety. Baggerly and Jenkins (2009) explored the effects of a play therapy group for young children who were homeless. Statistical analysis revealed that the play therapy group had a moderate effect in reducing anxiety.

Computerized Cognitive Behavioral Interventions

Computerized CBT (CCBT) interventions for anxiety may enhance the efficiency and accessibility of mental health services to students with anxiety. Such interventions may help school counselors reach youth who have been identified with anxiety but choose not to participate in group counseling, are not appropriate for

TABLE 2 SCHOOL-BASED INTERVENTIONS FOR CHILDHOOD ANXIETY

Intervention	Description	Age in Years	Information Available
FRIENDS	10-week CBT intervention 2 booster sessions offered at 1 and 3 month follow-up 4 supplemental sessions offered for parents Facilitator manual and workbook for children	7 to 16	An order form for the FRIENDS curriculum is available on the final page of the Introduction to Friends handbook (Barrett, Webster, Turner, & May, 2003) which can be found at http://www.friendsinfo.net/downloads/friendsintro.pdf
Coping Cat	16-session CBT intervention Facilitator manual and workbook for children	6 to 13	A helpful review of the content, sequence, implementation considerations, and videos of the Coping Cat program and the FEAR plan is provided by Podell et al. (2010).
Cool Teens	12-session computer-delivered interactive intervention	adolescents	Cool Teens can be purchased at the Center for Emotional Health, http://www.centreforemotionalth.com.au/pages/resources-products.aspx
Camp Cope-a-Lot	12-session computer-assisted intervention	7 to 13	Camp Cope-a-Lot can be purchased at http://cope-a-lot.com/instruction.htm .
Brave Program	10 on-line sessions	7 to 18	More information about registering for the Brave Program can be found at http://brave.psy.uq.edu.au/index.html?site=public&page=about .

HAVING NINTH-GRADE STUDENTS WRITE ABOUT THEIR TEST ANXIETY FOR 10 MINUTES IMMEDIATELY BEFORE TAKING FINAL EXAMS SIGNIFICANTLY IMPROVED TEST SCORES COMPARED TO CONTROL GROUPS.

group counseling, or need support in addition to group counseling or school-wide guidance curriculums aimed at preventing or reducing anxiety symptoms. The following CCBT interventions may be helpful to school counselors: Cool Teens, Camp Cope-a-Lot, and the Brave Program.

A recent study of 43 adolescents with an anxiety diagnosis who were assigned to either the Cool Teens intervention or a waitlist revealed that those teens who participated in the intervention experienced a greater reduction in their anxiety symptoms in comparison to teens on the waitlist

(Wuthrich et al., 2006). Khanna and Kendall (2010) studied the effectiveness of the Camp Cope-a-Lot intervention for 49 children (ages 7 to 13 years old) who were randomly assigned to Camp Cope-A-Lot, individual CBT, or computer-assisted education and support. Their findings revealed that at post-intervention and a 3-month follow-up, children who participated in Camp Cope-A-Lot demonstrated greater improvements and reductions in anxiety diagnoses than children in the computer-assisted education group and similar improvements and reductions in diagnoses to children who

received individual CBT counseling sessions. March, Spence, and Donovan (2009) examined the potential effectiveness of the Brave Program with a sample of 73 children with anxiety diagnoses (ages 7 to 12 years old) who were randomly assigned to the Brave Program condition or no treatment condition. Post-treatment assessments revealed that children in the treatment condition experienced a greater reduction in the severity of their anxiety symptoms in comparison to children in the no treatment condition. However, there were no significant differences between the groups in terms of a reduction in the number of anxiety diagnoses at post-treatment.

CCBT programs are cost-effective, convenient, interactive, and accessible to youth who may not be willing or able to engage in face-to-face counseling. Although CCBT interventions have shown to be effective in treating adults with anxiety, research on

CCBT programs for anxious youth is still burgeoning. Fortunately, this new research indicates that CCBT has promise as an anxiety-reducing intervention for children. Specific information about school-based interventions that can be used to address childhood anxiety is provided in Table 2.

COUNSELING IMPLICATIONS

Based on the literature review, the authors make the following recommendations to enhance the responsive services provided for students who have anxiety disorders.

1. School-wide anxiety reduction programs should be initiated at the beginning of each academic year to increase all students' ability to recognize symptoms of anxiety and learn coping mechanisms.

2. Students who exhibit frequent somatic complaints, poor attendance, poor academic performance (uncharacteristic of ability), hostility and irritability, hyperactivity, tearfulness, sensitivity, and persistent isolation from other students should be screened with one of the aforementioned brief instruments to determine if significant anxiety symptoms are present.

3. Students who meet criteria for having anxiety-related issues should be carefully screened to determine if they could learn from a group setting. Students who exhibit symptoms of social anxiety, for instance, may not be the best candidates for group until they can develop confidence in their coping skills (Curtis, Kimball, & Stroup, 2004). Students who are deemed too socially anxious for groups could be encouraged to use computerized anxiety reduction programs to enhance their coping skills.

4. Regardless of age and grade, students should be educated about how sugar and caffeine can exacerbate anxiety.

5. In concert with guardian collaboration, students should be encouraged to possibly reduce or eliminate fear-

provoking or violent TV programs, movies, or video games. This could also include limiting exposure to traumatic news events (Curtis, Garrett, Forst, & Looney, 2006).

6. Specifically for high-test-anxious students, writing about their fears and concerns for ten minutes immediately prior to taking exams could reduce excessive worry, which hinders academic performance (Ramirez & Beilock, 2011). As such, identifying high-test-anxious students early in the academic year would be helpful and allow educators to arrange accommodations for the expressive writing intervention.

COMPUTERIZED CBT INTERVENTIONS FOR ANXIETY . . . MAY HELP SCHOOL COUNSELORS REACH YOUTH WHO HAVE BEEN IDENTIFIED WITH ANXIETY BUT CHOOSE NOT TO PARTICIPATE IN GROUP COUNSELING, ARE NOT APPROPRIATE FOR GROUP COUNSELING, OR NEED ADDITIONAL SUPPORT.

7. Whether in group or individual counseling, CBT is an effective evidence-based treatment option for anxious students. Although myriad versions of CBT are used to treat anxiety, most programs contain the following three components: (a) education about the nature of stress and anxiety and how it affects emotions, thoughts, behavior, and physiology; (b) coping skills that are taught and practiced; and (c) encouragement and reinforcement of students practicing facing fearful situations (e.g., asking questions in class, giving a speech) while using coping skills.

Coping skills can include a cadre of cognitive and behavioral strategies. Christophersen and Mortweet (2001) had students move or dance as robots (stiff, tight, constrained) and then as ragdolls (loose, relaxed) to demonstrate the contrast between feeling tense and relaxed. They also used a feeling-face chart to help students identify the range of emotions they experience and to normalize the existence of such emotions (Christo-

phersen & Mortweet, 2001). Once students are able to identify feeling words and when/how they experience them, school counselors may introduce how the students' thoughts increase the intensity of emotions. School counselors may introduce Ellis's ABC model (Ellis & Harper, 1975) and explain how having thoughts (B) about what happens (A) and about themselves, results in increased anxiety (C). For example, thinking about how classmates will laugh at them (B) when they give a class presentation (A) results in increased feelings of anxiety (C). Students are then instructed to de-

velop alternative ways to think about giving a class presentation that will not increase anxiety. Similarly, younger students may be taught the concept of "stinking thinking" and the connection between negative thoughts and emotions (Altiero, 2006). Counselors may use visual aids such as a volcano or thermometer to demonstrate how negative thoughts increase the "temperature" of their emotions, such as in anxiety or anger, and the importance of recognizing the negative thoughts early in order to reduce anxiety, anger, or sadness.

Once students become comfortable recognizing and replacing unproductive thoughts and behaviors, school counselors may use the game "Red Light, Green Light" to help students monitor when they need to stop and think (red light) about their thoughts and choices before proceeding (green light) with actions that are unhelpful. Actions may include replacing negative coping statements with positive affirmations, such as "I think I can" from *The Little Engine that Could*

(Piper, 1930), or calming words. School counselors also may consider using bibliotherapy to demonstrate how characters in stories work through anxiety and increase confidence. An example of this is Henkes's (2000) book, *Wemberly Worried*, and other resources from stressfreakids.com. When working with adolescents, counselors may have them choose their favorite music to create personal theme songs that inspire relaxation, motivation, and hope. Students who express themselves in writing or art may benefit from journal activities to monitor the events, thoughts, and resulting emotions they are experiencing, or by drawing, coloring, or painting with colors and images that depict what they are feeling.

tice taking deep breaths and watch the teddy bear move outward from their bodies. This will help students practice taking deeper breaths than the more common shallow breaths found in the upper chest. One elementary counselor noticed positive results when teaching breathing exercises that had students inhale as if smelling flowers or fresh baked cookies and exhale as if blowing out a candle (Van Horne, 2012). School counselors may teach guided imagery by first having students look at peaceful images (e.g., outdoor scenery) and then have students imagine what they would enjoy doing in those scenes. Or, school counselors may have students create their own images of a relaxing or safe space where they can retreat or have a “mental vacation.” Integrated with

anxiety, and uncertainty about future aspirations. Despite a wealth of research on evidence-based interventions and prevention programs, a significant number of youth who struggle with anxiety do not receive mental health services (Essau, 2005) because of cost, time constraints, and limited access to available services (Barrett & Pahl, 2006). If left untreated, childhood anxiety can lead to personal/social and academic problems (Feehan, McGee, & Williams, 1993; King & Ollendick, 1989; Mychailyszyn, Mendez, & Kendall, 2010; Van Amerigen et al., 2003) that impede a child's ability to be successful in school and beyond. For these reasons, the U.S. federal government (Mental Health Commission, 2003) is calling on schools as the primary source of mental health interventions for children and adolescents (Miller, 2008).

Professional school counselors must remain diligent in their leadership and advocacy roles for creating and implementing effective prevention and intervention strategies in the school environment for students experiencing anxiety. Through comprehensive developmental programs, school counselors can implement responsive services that address the needs of students who experience anxiety and its deleterious effects. This includes advocating and collaborating with student support personnel, parents, and mental health professionals in the community. Parent and teacher education on the affects of anxiety disorders on student learning can facilitate the development of classroom and home modifications conducive to alleviating overwhelming anxiety. Also, it is imperative that school counselors assess the degree of debilitation experienced by a student due to anxiety issues and conduct internal and external referral procedures for more intense, long-term treatment services as needed (ASCA, 2009). School counselors who are knowledgeable of the research on best practices that have relevance to the profession will be better able to facilitate the removal of barriers to student learning while creating opportunities for healthy growth and development for all students. ■

SOMATIC MANAGEMENT TECHNIQUES, OR RELAXATION TECHNIQUES, ARE ANOTHER TOOL TO MANAGE PHYSIOLOGICAL AROUSAL AND COUNTER ANXIOUS RESPONDING RELATED TO DISTRESSING THOUGHTS AND FEELINGS.

When using counselor directives, or homework assignments, school counselors should consider students' age and maturity, and assess their level of understanding the directives. School counselors may use worksheets for students to practice skills on their own and incorporate into their daily lives with the help of their family and friends, when possible. For younger students, assigning one skill task per week is more useful for reinforcing learning techniques, rather than addressing multiple skills,

Somatic management techniques, or relaxation techniques, are another tool to manage physiological arousal and counter anxious responding related to distressing thoughts and feelings. Specific techniques include practicing deep breathing, guided imagery, and progressive muscle relaxation. One example of practicing deep breathing is having students place a teddy bear on their abdomens and have them prac-

deep breathing, students may practice imagining their relaxing scene as soon as symptoms of anxiety emerge. School counselors also may teach students progressive muscle relaxation and have students audiotape themselves reading a script that instructs them to breathe, tense, and relax different muscle groups. Primary caregivers or parents should also be included in learning somatic management techniques to model the relaxation skills and help their children practice at home (Simpson, Suarez, & Connolly, 2012).

CONCLUSION

Students have identified multiple stressors that can contribute to heightened anxiety in their interactions at school. These include but are not limited to fear of failure, school phobia, difficulty in peer and adult interactions, fear of violence and/or bullying, separation

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