School-Based Interventions for Anxious Children

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ABSTRACT

Objective: To compare the effectiveness of three school-based interventions for anxious children: group cognitive-behavioral therapy (CBT) for children, group CBT for children plus parent training group, and no-treatment control. **Method:** Students (7–11 years old) in three elementary schools ($N = 453$) were screened using the Multidimensional Anxiety Scale for Children and teacher nomination. Subsequently, 101 identified children and their parents completed the Anxiety Disorders Interview Schedule for *DSM-IV*, Child Version. Children with features or *DSM-IV* diagnoses of separation anxiety disorder, generalized anxiety disorder, and/or social phobia ($n = 61$) were randomized by school to one of three conditions. Active treatments were nine weekly sessions of either group CBT or group CBT plus concurrent parent training. **Results:** Clinician-report, child-report, and parent-report measures of child anxiety demonstrated significant benefits of CBT treatments over the no-treatment control group. Effect size was 0.58 for change in composite clinician severity rating, the primary outcome measure, favoring collapsed CBT conditions compared with control. In addition, several instruments showed significantly greater improvement in child anxiety for group CBT plus parent training over group CBT alone. **Conclusions:** Both active CBT treatments were more effective than the no-treatment control condition in decreasing child anxiety symptoms and associated impairment. When parent training was combined with child group CBT, there were some additional benefits for the children. *J. Am. Acad. Child Adolesc. Psychiatry,* 2005;44(11):1118–1127. **Key Words:** anxiety, cognitive-behavioral therapy, school-based interventions.

It has been more than 10 years since the publication of the first clinical trial demonstrating the efficacy of cognitive-behavioral therapy (CBT) over waitlist control for children with anxiety disorders (Kendall, 1994). Since then, additional randomized clinical trials have shown the superiority of individual CBT over waitlist for children with anxiety disorders (e.g., Barrett et al. 1996; Kendall et al. 1997). Long-term maintenance of anxiety reduction has also been demonstrated (e.g., Barrett et al., 2001; Kendall et al., 2004). As a result, CBT is consistently recommended as a first-line treatment for anxious children (Compton et al., 2004).

CBT research has expanded these findings in a number of key areas: group interventions (Flannery-Schroeder and Kendall, 2000; Manassis et al., 2002; Silverman et al., 1999), the role of parental involvement (Barrett, 1998; Cobham et al., 1998; Mendlowitz et al., 1999; Nauta et al., 2003), and early intervention for children with mild to moderate symptoms (Dadds et al., 1997). In the majority of studies cited above, participants included children with separation anxiety disorder (SAD), generalized anxiety disorder (GAD), and/or social phobia (SP).

Silverman and colleagues (1999) demonstrated the efficacy of group CBT over waitlist control for children with anxiety disorders. Treatment gains were maintained at 3, 6, and 12 months posttreatment. The

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research that followed demonstrated that group CBT was as effective as individual CBT (Flannery-Schroeder and Kendall, 2000; Manassis et al., 2002).

The role of parental involvement when combined with individual CBT was examined by Barrett and colleagues (1996). Both individual CBT and individual CBT plus family anxiety management training (FAM) were superior to waitlist. In addition, individual CBT plus FAM was superior to individual CBT alone; however, at 6-year follow-up, both active treatments were equally efficacious (Barrett et al., 2001). Subsequent research comparing group CBT with group CBT plus a family component indicated marginal but not statistically significant improvement associated with the combined CBT over child-only CBT. Overall, the findings regarding parental involvement have not clearly established the superiority of CBT plus parent training over CBT alone. When the child has an anxious parent, however, the efficacy of CBT appears to be significantly augmented by adding a parent training component that addresses parental anxiety management (Cobham et al. 1998).

Dadds and colleagues (1997, 1999) further expanded the field by examining the benefits of early identification and intervention for anxious children in Australia. Participants with mild to moderate anxiety ($N = 128$) were randomly assigned to either 10 weeks of school-based group CBT or a monitoring condition (i.e., no intervention). Posttreatment, both groups showed improvement, but there was no significant difference between the two outcomes. At 6-month and 2-year follow-ups, benefit was maintained in the treatment group only, with a significantly higher remission rate of baseline primary anxiety diagnoses and significantly lower incidence of new anxiety disorders compared with the control group (Dadds et al., 1999).

The goal of the present study was to expand and build on the early intervention research of Dadds and colleagues (1997, 1999) using the FRIENDS program (Barrett et al., 2000), a manual-based CBT program developed in Australia. Our study was designed to test group CBT in a school setting in the United States and to evaluate the potential benefit of adding a parent training component to the child CBT intervention.

The primary aim was to compare three school-based interventions for anxious children: (1) group CBT for children, (2) group CBT for children plus parent training group, and (3) no-treatment control. The primary hypothesis was that active interventions would be more effective than no-treatment control, as measured by decrease in the severity of anxiety symptoms and remission of current anxiety diagnoses. The secondary aim was to investigate the potential benefits of adding a parent training component to group CBT for anxious children. The present study adapted the FRIENDS manual to include a broader, more intensive parental training component. The secondary hypothesis was that group CBT for children plus parent training group, would be more effective than group CBT for children alone.

METHOD

Participants

Participants included 61 children (40 females and 21 males) 7 to 11 years old (X = 9.0 ± 1.0). Ethnicity was 59 white, one Hispanic/white, and one Asian. Sixty-two percent ($n = 38$) of participants lived with both parents, 33% ($n = 20$) had parents who were divorced, and 5% ($n = 3$) lived with mothers who had never married. Socioeconomic status using the Hollingshead Four Factor Index (Hollingshead, 1975) ranged from 22 to 58, with an average of 40.5 ± 8.4, corresponding to middle-class social strata. Participants were drawn from three elementary schools.

Procedure

The University Institutional Review Board approved this study. Consent forms were sent home with 1,037 second- through fifth-grade students. Seventy-eight percent ($n = 809$) of the consent forms were returned. Among consent forms returned, positive consent was obtained for 61% ($n = 497$) of students and parental consent was declined for 39% ($n = 312$) of students. This relatively low rate of positive consent was largely the result of a paragraph that was required by our Institutional Review Board to be in the consent form. It stated, "In the event that this research activity results in an injury, treatment will be available, including first aid, emergency treatment, and follow-up care as needed. Care for such injuries will be billed in the ordinary manner, to you or your insurance company." We received more than 50 phone calls from parents regarding this statement. After communicating this situation to the Institutional Review Board, the verbiage is no longer required for inclusion in consent forms for studies with minimal potential for injury.

After obtaining written parental consent and written child assent, students participated in a screening for anxiety symptoms. Screening consisted of completion of the Multidimensional Anxiety Scale for Children (MASC; March et al., 1997) and teacher nomination. The MASC was completed at school in small groups with assistance from research staff. Teachers provided written consent for their participation in the study. Teachers nominated the three most anxious children in their classrooms from among those with parental consent.

If MASC Total Anxiety T score was ≥58 and/or the child was nominated by his/her teacher, families were offered the Anxiety Disorders Interview Schedule (ADIS) for *DSM-IV*, Child Version (Silverman and Albano, 1996) interview with a parent about his/her child and ADIS interview with the child. Interviews were administered separately to the parent and to the child by the same