Evaluating the FRIENDS Program: A Cognitive-Behavioral Group Treatment for Anxious Children and Their Parents
Alison L. Shortt *, Paula M. Barrett *, Tara L. Fox *
* Department of Applied Psychology, Griffith University.
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Griffith University

Conducted the 1st randomized clinical trial evaluating the efficacy of the FRIENDS program, a family-based group cognitive–behavioral treatment (FGCBT) for anxious children. Children (n = 71) ranging from 6 to 10 years of age who fulfilled diagnostic criteria for separation anxiety (SAD), generalized anxiety disorder (GAD), or social phobia (SOP) were randomly allocated to FRIENDS or to a 10-week wait-list control group. The effectiveness of the intervention was evaluated at posttreatment and 12-month follow-up. Results indicated that 69% of children who completed FGCBT were diagnosis-free, compared to 6% of children completing the wait-list condition. At 12-month follow-up, 68% of children were diagnosis-free. Beneficial treatment effects were also evident on the self-report measures completed by the children and their mothers. Parents and children reported high treatment satisfaction. Results suggest that FRIENDS is an effective treatment for clinically anxious children. Limitations of this study and directions for future research are discussed.

There is increasing data to suggest that psychosocial treatments are effective for anxiety disorders in children. A number of published studies provide evidence that individual cognitive-behavioral treatment (CBT) is more effective than a wait-list condition for reducing anxiety (Barrett, Dadds, & Rapee, 1996; Kendall, 1994; Kendall, Flannery-Schroeder, Panicelli-Mindel, Southam-Gerow, Henin, & Warman, 1997; King et al., 1998; Last, Hansen, & Franco, 1998). There are also a small but growing number of studies examining the impact of incorporating parents in the therapeutic process. Involving parents may be important because factors such as high parental control, parental anxiety, and parental reinforcement of avoidant coping strategies have been implicated in the maintenance of anxiety in children (Barrett, Dadds, & Ryan, 1996; Cobham, Dadds, & Spence, 1998; Rapee, 1997; Siqueland, Kendall, & Steinberg, 1996).

Howard and Kendall (1996) were the first to evaluate the effectiveness of a cognitive–behavioral family intervention. Using a multiple baseline design, they studied six clinically anxious children ages 9 to 13 years. Four children showed positive changes in diagnostic status, standardized parent- and teacher-report measures, and parent and child reports on specific measures of coping at posttreatment. These positive results were replicated in the first randomized, controlled trial of CBT plus parent training by Barrett and colleagues (1996). Barrett et al. randomly assigned 79 children (ages 7 to 14 years) to either a child-only CBT, a child CBT plus family anxiety management training (CBT+FAM), or a wait-list control group. The family intervention involved three phases: (a) parent skills for managing child distress and avoidance, (b) parent skills for managing their own anxiety, and (c) parental communication and problems skills. At posttreatment, 61% of children in the CBT group no longer met a Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev.; American Psychiatric Association, 1987) diagnosis compared with 88% in the combined treatment and less than 30% in the wait-list control group. At 12-month follow-up, the relative superiority of the CBT+FAM was maintained. Interestingly, an investigation of age effects on treatment outcome revealed that younger children (7 to 10 years of age) who completed the CBT+FAM were more likely to be diagnosis-free than children who completed CBT alone. This effect was observed at posttreatment and at 12-month follow-up. A long-term follow-up, conducted 5 to 7 years after completion of treatment, was conducted with 52 children from the original study (Barrett, Duffy, & Dadds, in press). Eighty-seven percent of children no longer fulfilled diagnostic criteria for any anxiety disorder. In the long term, individual CBT and CBT+FAM were equally effective, with 87% in the CBT group and 86% in the CBT+FAM group diagnosis-free.

Cobham et al. (1998) examined the role of parental anxiety in treatment outcome and tested whether training parents to better manage their own anxiety would alleviate poorer treatment outcome. Sixty-seven children
ages 7 to 14 years were divided into two groups: child anxiety only and child + parent anxiety. Children from both groups were randomly assigned to either the child-only CBT or the child CBT plus parental-anxiety management (CBT+PAM). Results indicated that high parental anxiety was a risk factor for poorer treatment outcomes for anxious children. Of the children who received child-only CBT, 82% of children in the child anxiety only group were diagnosed-free at posttreatment, compared to 39% of children in the child plus parental anxiety group. In the CBT+PAM condition, 80% of the child anxiety only group and 77% of the child + parent anxiety group were diagnosis-free. Therefore, the inclusion of CBT+PAM increased the efficacy of child CBT, but only for children with anxious parents. At 12-month follow-up, children without anxious parents were more likely to remain diagnosis-free. However, the differential treatment effects for CBT+PAM and child-only CBT were no longer statistically significant.

There is increasing interest in the efficacy of using CBT in a group format. Group-format CBT has the advantages of increasing opportunities for positive modeling, normalization, and reinforcement (Albano, Marten, Holt, Heimberg, & Barlow, 1995; Heimberg et al., 1990; Heimberg, Salzman, Holt, & Blendell, 1993). Although group-format treatment for anxiety in children has been used for some time (e.g., Kondas, 1967; Ritter, 1968), it is only recently that group cognitive–behavioral treatment (GCBT) has been investigated in controlled clinical trials.

Barrett (1998) conducted the first study into the efficacy of GCBT. Sixty anxious children ages 7 to 14 years were randomly assigned to three treatment conditions: GCBT, GCBT plus family management (GCBT+FAM), and wait-list (WL). Children in the GCBT worked through the Coping Koala Group workbook (Barrett, 1995), which was an Australian adaptation of Kendall’s Coping Cat workbook (1990). At posttreatment, both treatments were superior to the WL, although there was no significant difference between GCBT and GCBT+FAM. At posttreatment, 65% of children in the GCBT were diagnosis-free compared to 25% of diagnosis-free children in the wait-list control group. At 12-month follow-up, 65% of children in the GCBT+FAM condition were diagnosis-free, compared to 85% of children in the GCBT condition. In summary, it appeared that group-format CBT was effective for treating childhood anxiety disorders, but the findings were mixed for including parents.

Silverman, Kurtines, Ginsburg, Weems, Lumpkin, and Carmichael (1999) completed a second randomized clinical trial of GCBT with 56 children ages 6 to 16 years (M = 9.96 years). Consistent with the results obtained by Barrett (1998), Silverman et al. found that 64% of the children in the GCBT were free of their primary diagnosis at posttreatment, compared with 13% in the wait-list condition. Similar improvements were observed for clinicians’ ratings of severity and on child and parent self-report measures. These gains were maintained at 3-, 6-, and 12-month follow-up.

Mendelowitz, Manassis, Bradley, Scapillato, Miezitis, and Shaw (1999) examined the effect of cognitive–behavioral group intervention on anxiety and coping strategies in anxious children and the effect of parental involvement on treatment outcomes. Sixty-two families with children ages 7 to 12 years were assigned randomly to one of three 12-week treatment conditions: parent and child intervention, child-only intervention, and parent-only intervention. The wait-list group consisted of children who waited 2 to 6 months for treatment. At posttreatment, children reported fewer symptoms of anxiety. Families in the parent and child intervention group reported using more active coping than families in the parent-only or child-only group. This study supports previous research suggesting that GCBT is effective. However, it is limited by lack of a diagnostic interview at posttreatment and by lack of follow-up data.

The present study was designed to evaluate the efficacy of the FRIENDS program for children (Barrett, Lowry-Webster, & Turner, 2000a, 2000b, 2000c). FRIENDS is a family-based group cognitive behavioral treatment (FGCBT) for clinically anxious children. The program name FRIENDS is an acronym for the strategies taught: F—Feeling Worried; R—Relax and feel good; I—Inner thoughts; E—Explore plans; N—Nice work so reward yourself; D—Don’t forget to practice; and S—Stay calm, you know how to cope now. The idea of an acronym to help children remember the strategies taught came from the Coping Cat program, which uses the FEAR acronym (Kendall, 1990). The FRIENDS program also encourages children to (a) think of their body as their friend because it tells them when they are feeling worried or nervous by giving them clues; (b) be their own friend and reward themselves when they try hard; (c) make friends, so that they can build their social support networks; and finally (d) talk to their friends when they are in difficult or worrying situations.

Although retaining the core components of CBT for childhood anxiety (exposure, relaxation, cognitive strategies, and contingency management), the FRIENDS program has a number of unique features. First, in recognition of the developmental needs of children at different ages (Kendall, 1994; Barrett, 2000), FRIENDS has two parallel forms: one for children (ages 6 to 11 years) and the other for youth (ages 12 to 16 years). Second, it incorporates a family-skills component, which includes cognitive restructuring for parents and partner-support training and encourages families to build supportive social networks. Parents and children are also encouraged to practice the skills learned in FRIENDS as a family, on a daily basis. These strategies are taught in addition to training parents in appropriate use of reinforcement strategies (Barrett,
EVALUATION OF FRIENDS

The FRIENDS program from the perspective of the par-

problems (Rapee & Sanderson, 1998; Wells, 1997).

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2000f) is a family and peer group intervention. The

Material

Treatment Materials

The FRIENDS program (Barrett, Lowry-Webster, & Turner, 2000a, 2000b, 2000c, 2000d, 2000e, 2000f) is a family and peer group intervention. The program originated with the development of the

Coping Koala Group Workbook (Barrett, 1995), which was an Australian adaptation of Kendall’s Coping Cat Workbook (Kendall, 1990). The FRIENDS program was developed based on feedback from parents and children who participated in Barrett’s (1998) initial group treatment study. It was specifically designed for school-age children in Aus-

talia, and since its release approximately 7,000 chil-

children’s workbooks have been sold in Australia (S.

May, personal communication, October 26, 2000). FRIENDS has also been translated and is being used by therapists and researchers in Holland, Germany, Belgium, Portugal, and the United States. A number of controlled treatment and prevention trials using FRIENDS are currently underway.

The FRIENDS program consists of 10 weekly ses-

sessions and 2 booster sessions, which are conducted 1

month and 3 months following completion of treat-

ment. The booster sessions provide additional oppor-

unities for children to practice the skills learned in

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tion of these skills to help them cope with situations

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ties that therapists need to implement in each session.

Children work through a workbook, and parents have

a booklet detailing the strategies discussed in each

parent session. The manuals permit flexible imple-

mentation to allow for family individuality and the

needs of any specific group. The FRIENDS program

also incorporates a family skills component, which is

designed to run in a group format for approximately 6

hr. It can be divided into four 1½-hr parent sessions

or 10 sessions (each approximately 40 min) with con-

tent matched to what the children’s sessions cover

each week. The later format was used in this study.

First, parents are taught to recognize and deal appro-

priately with their own anxiety. Second, parents are

trained in reinforcement strategies, including praise

and tangible rewards for gradually facing feared situa-

tions. Planned ignoring is used as a method for deal-

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techniques to challenge unhelpful thoughts. Fourth,

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ner support, and problem-solving skills. Finally, we

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network among parents. Group processes included

normalization of anxiety experiences, group exposure

through discussion and role-plays of common threat-

ening experiences, and peer learning through discus-

sion of success and difficulties. A detailed description

of the content of the parent sessions and parental par-

ticipation activities is provided in Table 1.

Method

Participants

Seventy-one anxious children ages 6½ to 10 years

participated in the study. The mean age of the entire

sample was 7.85 years. Twenty-nine of the participants

were male (M = 7.48 years, SD = 1.24) and 42 were fe-

male (M = 8.10 years, SD = 1.32). Of these participants,

92% identified themselves as Australian, 7% as Euro-

pean, and 1% as Asian. Children with one or more anxi-

disorders were referred from child mental health

centers (16%) or school guidance officers and parents

(84%) following media advertisements. To maximize

the number of participants available for treatment anal-

yses (posttreatment vs. post wait-list), participants

were randomly assigned to either the FGCBT or the

WL condition with an assignment ratio of 3 to 1 (treat-

ment to control). There were 54 children in the treat-

ment group and 17 children in the wait-list.

Only children with a principal diagnosis of GAD (n = 42), SAD (n = 19), or SOP (n = 10) were included in

this study. The majority of children (72%) had comorbid anxiety disorders. Thirty-eight percent were

comorbid with specific phobia, 20% with GAD, 16% with SAD, 13% with SOP, 3% with dysthymia, and 1% with major depression. All children with intellectual or

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tions about their accomplishments. These procedures have been used in treatments with adults with anxiety problems (Rapee & Sanderson, 1998; Wells, 1997).

This study aimed to (a) investigate the influence of treatment on diagnostic status and child and parent self-report measures and (b) examine the acceptability of the FRIENDS program from the perspective of the par-

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Diagnosis and Severity Ratings

Children’s diagnostic status was determined using the Diagnostic Interview Schedule for Children, Adolescents and Parents (DISCAP; Holland & Dadds, 1995). This interview was administered conjointly to the child’s parents. There were no cases of disagreement between parents. The diagnostic categories of the DISCAP correspond to those used in the Diagnostic and Statistical Manual of Mental Disorders (4th ed. [DSM–IV]; American Psychiatric Association, 1994), and it has good reliability and discriminative validity with anxious children (Johnson, Barrett, Dadds, Fox, & Shortt, 1999). The DISCAP uses a severity ratings

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We were unable to use the Anxiety Disorders Interview Schedule (ADIS) as in our previous research because we wanted DSM–IV criteria, and the ADIS–IV: Parent Version (Silverman & Albano, 1996) was not available when data collection commenced.
scale of 1 (low severity) to 6 (high severity), and a rating of 3 or above is considered to be in the clinical range. Clinicians’ severity ratings are based on parents’ ratings of severity; how much the anxiety interferes with home, school, and peer relationship functioning; and the child’s level of distress. To ensure reliability of diagnoses, a clinician blind to the original interviewer’s diagnoses reviewed 25% of the videotaped interviews and made a diagnosis. In case of disagreement, the two clinicians reviewed the videotape together, discussed the case, and assigned a consensus diagnosis for research purposes. The overall kappa agreement for the presence of any anxiety disorder was .95, and the kappas for specific anxiety disorder diagnoses were .74 for GAD, .65 for SOP, and .79 for SAD. More details of the diagnostic reliability procedures and results can be found in Johnson et al. (1999). At posttreatment and follow-up, diagnostic interviews were conducted by psychologists naive to the child’s treatment condition or diagnostic status. Pre- and posttreatment interviews were conducted in person, whereas interviews were administered over the phone at follow-up.

Child and Parent Self-Report Measures

The Revised Children’s Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) measures a child’s trait anxiety. The total anxiety score was used as the child completed anxiety measure. The RCMAS has high internal consistency, moderate retest reliability ($r = .68$; Reynolds & Richmond, 1985), and reasonable construct validity (RCMAS correlated .85 with the State-Trait Anxiety Inventory for children, Trait Anxiety Subscale). Mothers and fathers completed the Child Behavior Checklist (CBCL; Achenbach, 1991), which was used to evaluate statistically significant change in children’s internalizing problems. The CBCL was also used to evaluate clinically significant change using normative comparison (Kendall & Grove, 1988). The CBCL has high retest reliability, interparent agreement, and validity (Achenbach, 1991).

Treatment Satisfaction

At completion of treatment, children and parents completed questionnaires indicating their level of satisfaction with the FRIENDS program. These questionnaires were completed anonymously by 45 of the 60 (75%) families who completed treatment. Children were asked to rate how much they would use the skills (not at all, sometimes, or often) and how enjoyable the FRIENDS program was (boring, OK, or fun). Parents were asked to rate how useful each skill was for their child on a 5-point scale, ranging from 1 (not useful) to 5 (very useful). Parents were also asked to indicate the usefulness of the parent session component using the same 5-point scale. Parents were asked to give an overall evaluation of the program, ranging from 1 (poor) to 10 (excellent), and to indicate whether they would recommend the program to others, ranging from 1 (not recommend) to 10 (highly recommend).

Procedure

Following referral, parents were contacted, and an intake appointment was arranged. At this appointment, parents completed a diagnostic interview, and the child completed the RCMAS. Informed consent was obtained in writing after all participating family members had been informed of what the research would involve and their rights during the study. Parents were provided self-report measures and asked to return them either at a later appointment or by post. Following this, families were assigned to either FGCBT ($n = 54$) or a 10-week WL condition ($n = 17$). Sixteen children completed the WL condition, and 15 of these 16 children met criteria for a DSM–IV anxiety disorder at post-wait assessment. These children were offered a place in a treatment group and were assessed at posttreatment and at follow-up.

A total of 10 treatment groups were run using the child version of FRIENDS. There were between 5 and 13 children in each group. Each session began with a 10-min conjoint meeting with children and parents. During this time, session content was outlined, homework activities were reviewed, and children and individual families’ progress was monitored. Next, the children’s session was conducted for 50 to 60 min. Parents were invited back into the room at the end of the child session, and families spent 5 min discussing ideas for practicing the FRIENDS strategies at home over the coming week. Following this, a session for parents was conducted for 30 to 40 min. At least one parent from each family was required to attend each parent session. In the majority of cases (75%), mothers attended the parents group. In 25% of families, both parents attended. Because work or other commitments prevented both parents from attending sessions in many cases, the therapists emphasized the importance of discussing session content with partners who were unable to attend. The program also emphasized that the coping strategies taught needed to be practiced as a family on a daily basis. Children could miss up to two sessions, provided missed sessions were caught up individually with the therapist before the next group session. These “catch up” sessions followed the same format as the group sessions, and no extra time was spent on individual issues. Six of the families who completed treatment (11%) missed one session, which was caught up indi-
individual. Two families missed two sessions, and no family missed more than two sessions.

All treatment sessions were videotaped, and a double treatment integrity check was conducted to ensure adherence to the treatment manuals. Twenty-five percent of the tapes were randomly selected and observed by two independent clinicians. The tapes were rated using a checklist to indicate compliance with the manual content for each session. The integrity checks showed 95% and 97% concordance between session and manual content. Interrater agreement on session content was high (kappa, 96% agreement).

Therapists

All groups were conducted by two clinical masters trained doctoral candidates. Dr. Barrett trained the therapists in how to treat groups using the FRIENDS program. In addition, she conducted ongoing supervision sessions (1 hr a week) to address difficulties in implementing the program.

Results

Pretreatment

Table 2 displays sociodemographic and diagnostic information for families in the treatment and WL groups at pretreatment. T tests and chi-square tests were performed to ensure that the groups were comparable. No significant differences were found on any of the sociodemographic or pretreatment outcome measures.

No significant differences were found between the proportion of children with GAD, SAD, or SOP in the FGCBT and WL group, $\chi^2 (2, N = 71) = 2.95, n.s.$ Similarly, no significant differences were found between the proportion of children with comorbid specific phobia, GAD, SAD, or SOP, or any comorbid disorder, $\chi^2 (2, N = 71) = 2.97, n.s.$ No significant difference in type of primary diagnosis (GAD, SAD, or SOP), presence of comorbid disorders, or severity of diagnosis was found for sex or age of child.

Six families did not complete treatment, and one family dropped out of the WL group. Consequently, 90% completed the conditions (FGCBT and WL) and 10% did not. T tests and chi-square comparisons were used to test for pretreatment differences between treatment completers and noncompleters. A significant difference was found for fathers’ age, $t(57) = –2.51, p < .05$. The fathers of noncompleters were younger ($M = 33.8$ years) than the fathers of completers ($M = 39.6$ years). No significant differences were found on any other sociodemographic or outcome measures.

Posttreatment

According to parents’ DISCAP report, 69% ($n = 33$) of children who completed the FGCBT were diagnosis-free at posttreatment, compared to 6% ($n = 1$) of children at post-wait in the WL condition. This difference was statistically significant, $\chi^2(1, N = 64) = 18.82, p < .001$. At posttreatment, seven children in the FGCBT were diagnosed with GAD, five with specific phobia,

| Table 2. Sociodemographic and Diagnostic Information for FGCBT and WL Group |
|---------------------------------|-----------------|-----------------|
| Age                             | 7.83 years (1.33)| 7.88 years (1.32)|
| Percentage of girls            | 57              | 65              |
| Age of mother                   | 36.63 (4.70)    | 36.06 (3.15)    |
| Mother’s occupation             | 6.41 (3.49)     | 7.06 (2.97)     |
| Age of father                   | 39.25 (5.38)    | 38.62 (4.56)    |
| Father’s occupation             | 3.39 (1.73)     | 3.62 (1.71)     |
| Percent primary diagnosis GAD   | 61              | 53              |
| Percent primary diagnosis SAD   | 22              | 41              |
| Percent primary diagnosis phobia| 17              | 6               |
| Severity rating for primary diagnosis | 4.76 (0.93) | 4.65 (0.93)   |
| Percent comorbid specific phobia| 17              | 29              |
| Percent comorbid GAD            | 15              | 18              |
| Percent comorbid SAD            | 11              | 18              |
| RCMAS (total anxiety score)     | 13.65 (6.57)    | 11.00 (6.32)    |
| CBCL internalizing T score (mother) | 68.57 (6.70) | 66.47 (8.55) |
| CBCL internalizing T score (father) | 62.98 (8.26) | 66.11 (6.90) |

Note: FGCBT = family-based group cognitive behavioral treatment; WL = wait list; GAD = generalized anxiety disorder; SAD = separation anxiety disorder; RCMAS = Revised Children’s Manifest Anxiety Scale; CBCL = Child Behavior Checklist.

$^a n = 54$, $^b n = 17$. $^c$Occupation = 1 (high skilled) to 10 (low skilled). $^d$Severity rating = 1 (low) to 6 (high). (Rating of 3 or greater considered clinically significant.)
two with SOP, and one with SAD. With regard to comorbidity, 63% \((n = 10)\) of children in the WL group were diagnosed with comorbid disorders post-wait, compared to 10% \((n = 5)\) of children in the posttreatment condition. This difference was statistically significant, \(\chi^2(1, N = 64) = 18.14, p < .001\). Intent to treat analyses were also conducted using pretreatment measures as substitutes for noncompleters missing data at post.\(^2\) Compared to children in the WL group, children assigned to the treatment group (complete and noncompleters) were less likely to receive a diagnosis at post assessment. \(\chi^2(1, N = 71) = 15.80, p < .001\).

Chi-square analyses were used to examine the effects of sex, comorbid status, and group size \((5 \text{ to } 8 \text{ children})\) on treatment outcome at posttreatment, using rates of being diagnosis free as the dependent measure. No significant effects for gender, \(\chi^2(1, N = 48) = 0.62, ns\), group size, \(\chi^2(1, N = 48) = 1.37, ns\), or comorbid status, \(\chi^2(1, N = 48) = 3.26, ns\), were detected. Chi-square analyses were also used to determine whether type of diagnosis at posttreatment (GAD, SAD, SOP) was associated with differential treatment effects. No significant difference was found between the diagnostic groups at posttreatment, \(\chi^2(2, N = 48) = 0.90, ns\), with 71% of the GAD group, 73% of the SAD group, and 56% of the SOP group diagnosis-free.

Condition \(\times\) Time \(\times\) Moderator analyses of variance (ANOVM) revealed no interactions that would indicate a moderating role for age, sex, or comorbid status on clinicians’ severity ratings or the self-report measures. ANOVA of clinicians’ severity ratings revealed a significant main effect for time, \(F(1, 62) = 84.21, p < .001\), \(\eta^2 = 0.58\), power = 1.00, treatment condition, \(F(1, 62) = 21.48, p < .001\), \(\eta^2 = 0.26\), power = 1.00, and a significant Time \(\times\) Condition interaction, \(F(1, 62) = 52.42, p < .001\), \(\eta^2 = 0.46\), power = 1.00. Simple effect analyses indicated a significant reduction in severity ratings in the FGCBT condition, \(t(62) = 6.51, p < .001\), from pre- \((M = 4.77, SD = .13)\) to posttreatment \((M = 1.06, SD = .24)\). In comparison, children in the WL group showed no significant change from pre- \((M = 4.56, SD = .23)\) to post-wait \((M = 4.13, SD = .41)\).

The means and standard deviations for the self-report measures are presented in Table 3. The 2 (condition: FGCBT vs. WL) \(\times\) 2 (time: pre- vs. post-) repeated measures ANOVA on the RCMAS revealed a significant \(F(1, 56) = 5.94, p < .05\), \(\eta^2 = 0.10\), power = .67. Simple effect analyses to examine the Time \(\times\) Condition interaction indicated that children in the FGCBT showed a significant reduction in internalizing symptoms from pre- \((M = 13.21)\) to post- \((M = 8.62)\), compared to those in the WL group whose scores did not change significantly. Unfortunately, there was a low return rate of parents’ CBCLs at post-wait—only 9 of the 16 families who completed the WL condition returned their questionnaires. A repeated measures ANOVA on the fathers’ CBCL internalizing scale found a significant effect for time only, \(F(1, 29) = 5.63, p < .05\), \(\eta^2 = 0.16\), power = .63. Participants in both the FGCBT and WL groups reported a reduction in internalizing symptoms from pre- to post-. Analysis of mothers’ CBCL internalizing scale revealed a significant main effect for time, \(F(1, 47) = 15.33, p < .001\), \(\eta^2 = 0.25\), power = .97, and a significant Time \(\times\) Condition interaction, \(F(1, 47) = 11.59, p < .001\), \(\eta^2 = 0.20\), power = .92. Simple effect analyses to examine the Time \(\times\) Condition interaction, indicated that children in the FGCBT showed a significant reduction in internalizing symptoms from pre- \((M = 58.38)\) to post- \((M = 58.38)\), \(t(45) = 8.74, p < .001\).

The CBCL was used to evaluate clinically significant change using normative comparison (Kendall & Grove, 1988). Of the 48 children who completed treatment, 20 had t scores in the clinical range \((t\) scores of 70 or above), 23 scored in the borderline range \((t\) scores of 60 or above), and 4 were in the normal range on the internalizing scale of mothers’ CBCL at pretreatment. One family did not return their CBCL. At posttreatment, 8 children moved from the clinical to nonclinical range, 10 children moved from the borderline to nonclinical range, and 9 children moved from the clinical to borderline range. Unfortunately, 3 children moved from the borderline range at pretreatment to the clinical range posttreatment. Ten children remained in the borderline range, and 3 of these 10 children dropped out of treatment prematurely. Three children remained in the clinical range at posttreatment. Only 1 of these children had completed treatment; the other 2 had dropped out of treatment prematurely. There was missing CBCL data for five families at posttreatment. Of the 17 children assigned to the WL condition, 6 were in the clinical range on mother’s CBCL internalizing scale, 6 were in the borderline range, 3 were in the normal range, and 2 families failed to return their questionnaires at pretreatment. Post-wait, 4 children remained in the clinical range, 3 remained in the borderline range, and 2 remained in the nonclinical range. Seven families did not return their CBCL post-wait, and 1 family dropped out of the WL condition. A chi-square indicated that a greater proportion of children in FGCBT showed clinically significant improvement from pre- to posttreatment than children in the WL condition, \(\chi^2(1) = 16.62, p < .001\).
Treatment Maintenance (12-Month Follow-Up)

Follow-up data from the treated cases \( (n = 48) \) and the WL cases after they were treated \( (n = 15) \) were pooled.\(^3\) Follow-up data were available for 47 of the 63 (75%) families who completed treatment. The DISCAP interview with parent(s) found that 32 of the 47 treatment completers (68%) were diagnosis-free. However, 2 children had subclinical symptoms of GAD, and 1 had subclinical SOP. Chi-square analyses found no effects for sex, \( \chi^2 (1) = 0.34, \) ns, or pretreatment diagnosis, \( \chi^2 (2) = 1.25, \) ns, on diagnostic status at 12-month follow-up.

Repeated measures ANOVAs were used to examine the durability of treatment effects from posttreatment to follow-up. On clinicians’ severity ratings, no significant effect for time was found, \( F(1, 46) = 0.02, \) ns, indicating that severity ratings at follow-up \( (M = 1.11, SD = .24) \) were similar to ratings given at posttreatment \( (M = 1.06, SD = .26) \). Similarly, no significant time effects were detected on the mother’s internalizing CBCL scores, \( F(1, 31) = 2.46, \) ns. However, a significant time effect was found on the child’s internalizing CBCL scores, \( F(1, 31) = 9.22, p < .01, \eta^2 = 0.23, \) power = .84, and the fathers’ internalizing CBCL scores, \( F(1, 21) = 11.26, p < .01, \eta^2 = 0.36, \) power = .89. Fathers’ CBCL scores at 12-month follow-up \( (M = 52.86) \) were significantly lower than scores at posttreatment \( (M = 58.10) \). Similarly, children’s RCMAS scores at 12-month follow-up \( (M = 6.97) \) were significantly lower than at posttreatment \( (M = 9.13) \). With regard to clinically significant change, only 1 child remained in the clinical range on the CBCL internalizing scale at follow-up.

With regard to the analyses previously discussed, attendance rates at the booster sessions were very low. Only four families in this study attended both sessions. Consequently, there was insufficient power to analyze differential treatment effects for booster attenders and nonattenders at 12-month follow-up.

Treatment Satisfaction

The FRIENDS program received positive evaluations from parents and children alike. On a 10-point scale, the parents’ mean overall evaluation of the program was 9.07 \( (SD = 1.04) \). The mean rating of parents’ recommendations of the program to others was 9.48 \( (SD = .88) \). According to child reports, 44% of children would “often” use the FRIENDS strategies and 56% would “sometimes” use the strategies. With regard to how enjoyable FRIENDS was, 83% of children rated the program as “fun” and 17% rated the program as “OK.” Parents’ ratings of how useful each skill was to their child are displayed in Table 4. Parents rated all the skills taught in the child sessions of FRIENDS as useful for their child; however, “rewards for approach behavior” was identified as the most useful. Table 5 shows parents’ ratings of the content of the parent sessions. Parents rated all the strategies taught in the parent sessions and the participation of other parents as useful. The cognitive strategies (identifying self-talk, challenging self-talk, and helpful thinking) were rated as the most important skills for parents.

Discussion

The main aim of this study was to evaluate the efficacy of the FRIENDS program. On the diagnostic measures, the results suggested that anxious children who completed FRIENDS showed greater improvement than children in the WL group, suggesting a treatment

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\(^3\)This pooling strategy has been used in previous studies (Kendall, 1994; Kendall et al., 1997; Silverman et al., 1999). Separate analyses that did not involve pooling were conducted and yielded the same pattern of results.

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### Table 3. CBCL and RCMAS Scores for the FGCBT and WL Group at Pretreatment, Posttreatment/Post-Wait, and 12-Month Follow-Up

<table>
<thead>
<tr>
<th>Condition</th>
<th>CBCL Internalizing T Score</th>
<th>RCMAS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
</tr>
<tr>
<td>Pretreatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FGCBT</td>
<td>69.53 (n = 53)</td>
<td>1.11</td>
</tr>
<tr>
<td>WL</td>
<td>67.56 (n = 15)</td>
<td>2.34</td>
</tr>
<tr>
<td>Posttreatment/post-wait</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FGCBT</td>
<td>58.38 (n = 46)</td>
<td>1.34</td>
</tr>
<tr>
<td>WL</td>
<td>66.78 (n = 9)</td>
<td>2.83</td>
</tr>
<tr>
<td>12-month follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FGCBT and WL combined</td>
<td>54.39 (n = 32)</td>
<td>2.68</td>
</tr>
</tbody>
</table>

Note: CBCL = Child Behavior Checklist; RCMAS = Revised Children’s Manifest Anxiety Scale; FGCBT = family-based group cognitive behavioral treatment; WL = wait list.
effect rather than a time effect: 69% of children who completed FGCBT were diagnosis-free, compared to 6% of children in the WL condition. Similar improvement was observed for clinicians’ ratings of severity. As expected, there was evidence that these improvements were maintained at 12-month follow-up: 68% of children were diagnosis-free at follow-up. These improvement rates were comparable with the results of other GCBT trials (Barrett, 1998; Silverman et al., 1999). Attrition from the assigned conditions was only 10% (6 of 54 families assigned to treatment, 1 of 17 families assigned to WL). Previous clinical trials report noncompletion rates ranging from 17% to 27% (Barrett, 1998; Kendall, 1994; Kendall et al., 1997; Silverman et al., 1999).

Favorable treatment effects were also found on the self-report measures. Significant Time × Condition interactions were detected on the RCMAS and mothers’ CBCL internalizing scale. The fathers’ CBCL measure showed a significant effect for time only with children in both the treatment and WL conditions showing a reduction in internalizing symptoms from pre- to posttreatment/post-wait. The failure to find a significant Condition × Time interaction on this measure may be due to insufficient power given the low return rate of fathers’ questionnaires. The low return rate of questionnaires post-wait may be explained in part, by WL families starting treatment within a week of their post-wait assessment and not having sufficient time to complete and return the CBCL. Future studies may benefit from offering incentives for the return of questionnaire measures or by making acceptance into a free treatment contingent on the return of questionnaires.

Before speculating on our findings and why the treatment appeared to work, it is important to consider the limitations of this study and how future research might...

Table 4. Parents Final Evaluation of FRIENDS (N = 45)

<table>
<thead>
<tr>
<th>Skills Taught in FRIENDS Sessions</th>
<th>Ratings by Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Rewarding brave behavior</td>
<td>4.50</td>
</tr>
<tr>
<td>Thinking in more helpful ways</td>
<td>4.44</td>
</tr>
<tr>
<td>Identifying inner thoughts</td>
<td>4.47</td>
</tr>
<tr>
<td>Feel-good activities</td>
<td>4.29</td>
</tr>
<tr>
<td>Challenging unhelpful thoughts</td>
<td>4.38</td>
</tr>
<tr>
<td>Practicing skills taught</td>
<td>4.23</td>
</tr>
<tr>
<td>Deep breathing</td>
<td>4.20</td>
</tr>
<tr>
<td>Identify body cues of anxiety</td>
<td>4.16</td>
</tr>
<tr>
<td>Step plan (graded exposure)</td>
<td>4.13</td>
</tr>
<tr>
<td>Relaxation exercises</td>
<td>4.02</td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>3.98</td>
</tr>
</tbody>
</table>

*Response to, “Please indicate how useful these skills were for your child.” Ratings were made using a 5-point Likert scale ranging from 1 (not useful) to 5 (very useful).

Table 5. Parents Final Evaluation of Parent Sessions (N = 45)

<table>
<thead>
<tr>
<th>Content/Process of Parent Sessions</th>
<th>Parents’ Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Challenge inner thoughts</td>
<td>4.61</td>
</tr>
<tr>
<td>Think in more helpful ways</td>
<td>4.59</td>
</tr>
<tr>
<td>Identify inner thoughts</td>
<td>4.57</td>
</tr>
<tr>
<td>Explanation of FRIENDS program</td>
<td>4.51</td>
</tr>
<tr>
<td>Other parents’ participation (ideas and experiences shared in the group)</td>
<td>4.47</td>
</tr>
<tr>
<td>Information about anxiety</td>
<td>4.40</td>
</tr>
<tr>
<td>Rewarding brave behavior</td>
<td>4.30</td>
</tr>
<tr>
<td>Group activities and exercises</td>
<td>4.27</td>
</tr>
<tr>
<td>Deep breathing</td>
<td>4.26</td>
</tr>
<tr>
<td>Feel-good activities</td>
<td>4.19</td>
</tr>
<tr>
<td>Identify cues for feeling anxious</td>
<td>4.14</td>
</tr>
<tr>
<td>Graded exposure</td>
<td>4.07</td>
</tr>
<tr>
<td>Practicing anxiety management skills</td>
<td>4.05</td>
</tr>
<tr>
<td>Relaxation exercises</td>
<td>4.02</td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>3.95</td>
</tr>
</tbody>
</table>

*Response to, “Please indicate how important these techniques and factors were for you as a parent.” Ratings were made on a 5-point Likert scale ranging from 1 (not important) to 5 (very important).
address them. First, diagnostic interviews were conducted only with the parents. These interviews were based on the parents’ subjective interpretation of their child’s behavior and may be biased. It is generally recommended that multiple sources be used to assess childhood anxiety. Second, reliability of diagnoses was based on an independent observer reviewing the videotapes of the diagnostic interviews. Although this procedure has been used in previous studies (e.g., Cobham et al., 1998; Silverman et al., 1999), it may cause inflated reliability because the observer saw exactly what the original interviewer saw and was not given the opportunity to ask additional questions. Third, this study did not use measures of symptoms or functioning apart from anxiety. Future research would benefit from inclusion of measures to assess childhood depression, coping, and quality of life. Moreover, studies such as this one, which assess programs incorporating parent sessions, should also include measures of parenting, relationships, and family functioning. Fourth, because participants in the WL condition received treatment following post-wait assessment, this study could not examine treatment–no treatment effects at follow-up. Such analyses would provide information about the course of anxiety disorders over time and the persistence of treatment effects. Finally, because the same pair of therapists ran all treatment groups, it is possible that individual therapist characteristics influenced the outcome.

Another important direction for future research is to determine the central active treatment components. Integrated programs such as FRIENDS teach parents and children a wide variety of coping strategies. We can only speculate as to which factors or strategies contributed to positive treatment outcomes. First, the group context normalized anxiety and provided greater opportunities for practice with other children and parents. The group also provided more opportunities for positive modeling from peers and other families, as well as the therapists. Second, the FRIENDS program incorporates enjoyable, experiential activities for children in every session. Children appeared to enjoy learning new coping skills, and these activities appeared to facilitate relationships among children in the group. Third, parental involvement was helpful because parents supported children’s exposure and encouraged consistent use of anxiety-management strategies. Asking families to learn and practice the FRIENDS skills together was also likely to improve treatment maintenance. Finally, FRIENDS covers the basic components of CBT for childhood anxiety used with success in previous studies (e.g., Barrett et al., 1996; Kendall, 1994; Kendall et al., 1997; King et al., 1998; Last et al., 1998). In this study, parents reported that all the strategies taught in FRIENDS were useful for their children and for themselves as parents. These reports were given at the end of treatment, and parents’ perceptions may have been biased by treatment outcome. Clearly, a controlled comparison of the effectiveness of behavioral, cognitive, and relationship-oriented interventions with anxious children of different ages is needed. Further research is also needed to investigate specific group processes in both child and parent sessions, which may help or hinder treatment outcome. Finally, this study examined the efficacy of the child version of FRIENDS; a study to examine the efficacy of the youth version (Barrett, Lowry-Webster, & Turner, 2000d, 2000e, 2000f) for adolescents is currently underway.

With regard to booster sessions, attendance rates were unacceptably low. Reminder letters were sent to all families; therefore we can only speculate as to why families did not attend the boosters. It may be that parents viewed booster sessions as unnecessary because their child was “recovered” at posttreatment. Alternatively, the timing of the FRIENDS boosters (1 month and 3 months after treatment) may not have been optimal. Most treatment groups were conducted on weekends, and some families reported that after attending treatment for 10 consecutive weeks, they welcomed having their weekends to themselves. Future research is needed to determine the benefits of booster sessions in FGCBT such as FRIENDS and to examine whether booster sessions increase the maintenance of treatment gains in the long term. It may be that the FRIENDS emphasis on involving peers and family members throughout the program helped to facilitate generalization of skills from the clinic setting and therefore booster sessions were not needed. It may be more efficient to offer booster sessions to individual families who continue to experience difficulties with maintenance or skill generalization.

In conclusion, this study adds to a growing body of data suggesting that GCBT is an effective treatment for childhood anxiety in the short term (Barrett, 1998; Mendlovitz et al., 1999; Silverman et al., 1999). Questions of whether group treatment is as effective as individual treatment in the long term (3 to 5 years after treatment) and whether parental involvement in group treatment improves long-term outcomes remain.

References


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