Long-Term Follow-Up of a Cognitive–Behavioral Therapy for Anxiety-Disordered Youth

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This study examined the long-term effects of a psychosocial treatment for anxiety-disordered youth. Clients (N = 36) who had completed treatment 3.35 years earlier (on average) were reassessed using self- and parent-report instruments as well as structured diagnostic interviews. Results indicated that previously documented treatment gains were maintained. An examination of participants' recalled events within therapy suggested that the therapeutic relationship, games and activities, and discussion of problems were salient treatment components. Theoretically important components of treatment were also recalled by clients, and some were found to be related to long-term positive outcome.

Child and adolescent psychotherapy research has made noteworthy strides in the past 2 decades. Despite the progress, many areas remain under- or uninvestigated. Among the most pressing priorities are (a) the evaluation of long-term effects (Ollendick, 1986) and (b) the exploration of the effective components of a treatment. The current investigation seeks to address both of these tasks.

Kazdin's (1993) review of child psychotherapy indicated that although research has supported its effectiveness, most studies assessed maintenance at 3 to 6 months posttreatment. Recently, a few 1-year follow-ups have appeared (e.g., Kazdin, Siegel, & Bass, 1992; Kendall, 1994; Kolko, Loar, & Sturnick, 1990). Longer term follow-ups are rare and often lack methodological rigor (e.g., do not follow a randomized clinical trial, do not use similar measures at baseline and follow-up). For example, work from two psychiatric facilities—day and residential treatment—focused on either the factors affecting "successful" versus "unsuccessful" treatment or used broad-based measures to assess treatment effectiveness (Leone, Fitzmartin, Stetson, & Foster, 1986; Sack, Mason, & Collins, 1987). Graziano and Mooney (1982) reported strong maintenance effects at 2.5- to 3-year follow-up for a behavioral treatment of children's nighttime fears. However, the study lacked standardized measures. Van Londen, van Londen-Barentsen, van Son, and Mulder (1993) reported impressive results in a 2.5-year follow-up of a bibliotherapy treatment for nocturnal enuresis. However, the nature of the population (nonclinical) as well as the treatment (bibliotherapy) limit the generalizability of the findings.

Using a more rigorous methodology, Webster-Stratton (1990) interviewed parents who had participated in a parent-training program for children with conduct problems 3 years previously. Overall improvements were seen from baseline, along with modest maintenance of treatment gains. Epstein, Wing, Koeske, and Valoski (1987) reported a 5-year follow-up of a family-based treatment for childhood obesity using direct measurement of participants in addition to self- and parent-report measures. Results indicated that family-based treatment evidenced greater weight reductions than did either child-alone therapy or a no-target control group.

A recently reported randomized clinical trial (Kendall, 1994) indicated success for a psychosocial treatment for anxiety-disordered children with treatment gains maintained at 1-year follow-up. The first task of the present investigation is to examine the long-term follow-up (2–5 years) of these clients.

The second part of this study addresses client recall about treatment and what he or she considered important from the experience. In other words, the current investigation examined children's perspective on the therapeutic process. Murphy, Cramer, and Lillie (1984) used a semistructured interview to assess global ratings of "curative factors" as perceived by 24 outpatient adult clients who had recently completed a cognitive–behavioral treatment. They reported that patients identified (a) talking to someone about their problems, (b) getting advice, and (c) encouragement and reassurance as the primary "curative factors" and that the first two of these correlated with positive outcome. Llewelyn, Eliott, Shapiro, Hardy, and Firth-Cozens (1988) reported similar findings with an adult population: Patients reported events such as problem solution, awareness, and reassurance as most helpful. Overall, research with adults suggests that patients represent their therapies as interpersonal events whose essential components include reassurance, advice, self-awareness, and the opportunity to talk over their problems.

A search of the child therapy literature revealed one study of the child's experience: Kendall (1982), in acquiring 1-year follow-up data, asked children whether they remembered what they had learned from their therapy, whether they used what they had learned, and whether they had taught what they had learned to others. Results indicated that individually treated children were more likely than group-treated youth to remember what they had learned and to have used it. These results,
LONG-TERM FOLLOW-UP

An assessment battery was mailed to participants. In addition, structured diagnostic phone interviews of parents and recall interviews of the children were conducted.

Child Report Measures

Revised Children's Manifest Anxiety Scale (RCMAS). A measure of the child's chronic anxiety, the scale consists of 37 items, including a nine-item Lie scale to which children respond "yes" or "no" (Reynolds & Richmond, 1985). The RCMAS has three anxiety factors: Physiological Symptoms, Worry, and Oversensitivity, and Concentration. Reynolds and Richmond reported high internal consistency for the measure, along with high test-retest reliability. In addition, they found that the RCMAS correlated highly with the State-Trait Anxiety Inventory for Children—trait version (STAIC: Spielberger, 1973) but did not correlate with the State version of that inventory, suggesting convergent and divergent validity. Normative data are also available (Reynolds, & Richmond, 1985). The RCMAS was chosen because it was found to be the best predictor of an anxiety-disorder diagnosis (Callahan, 1993).

Coping Questionnaire—Child (CQ-C). The CQ-C (Kendall, 1994) assesses children's perceived ability to self-manage specific anxiety-provoking situations. Situations were chosen for each child individually on the basis of the diagnostic interview with both the parents and the child. The CQ-C has been found to have good test-retest reliability over an 8-week period and to be sensitive to the effects of treatment (Kendall, 1994).

Children's Negative Affectivity Self-Statement Questionnaire (NASSQ). The NASSQ includes self-statements that children endorse on a 5-point scale representing the frequency that each statement occurred in the child's thoughts during the past week (Ronan, Kendall, & Rowe, 1994). The NASSQ contains separate versions of anxious self-talk for 7-10 year olds (11 items) and 11-15 year olds (31 items). Scores for the two age groups were converted to a standard metric and combined to form a single "anxious self-talk" score. Test-retest reliability, discriminative validity, and internal consistency are acceptable (Ronan et al., 1994). Strong positive correlations were found between NASSQ scores and diagnostic status, suggesting concurrent validity.

Children's Depression Inventory (CDI). Developed by Kovacs (1981), the CDI includes 27 items on a 3-point scale related to the cognitive, affective, and behavioral signs of depression. The scale has high internal consistency and moderate test-retest reliability (from 1 week to 6 months). It correlates with measures of related constructs such as self-esteem, negative cognitive attributions, and hopelessness (Kendall, Cantwell, & Kazdin, 1989). Normative data are available (Finch, Saylor, & Edwards, 1985; Smucker, Craighead, Craighead, & Green, 1986).

Recall Interview (RI). The RI, administered over the phone, included (a) perceived factors (i.e., open-ended questions designed to elicit participants' memories of the treatment) and (b) theoretical factors (i.e., specific questions about particular content areas of the treatment that were considered salient by the therapists). The open-ended questions were asked first to avoid priming. The open-ended section of the RI (perceived factors) consisted of five questions: (a) What did you remember about your time at the Temple University program? (b) What was most important for you about the program? (c) What was unimportant about the program? (d) What did you like about the program? (e) What did you dislike about the program? Responses were coded according to their content. Because a participant could make

Method

Participants

Participants were clients who had completed treatment at the Child and Adolescent Anxiety Disorders Clinic (CAADC) at Temple University at least 2 years prior to the study. Attempts were made to contact all eligible participants (n = 44) by phone and by mail; however, because of ineffective forwarding information, 6 participants were not located. Experimenters explained the study to the eligible participants, and of those contacted, 36 (20 boys and 16 girls; average age at time of LF = 15.61 years, range = 11.33-18.25) agreed to participate (95% of those contacted; 82% of those eligible). The 2 former clients who refused to participate did so because of personal reasons (e.g., child had moved out of the house because of pregnancy, family distress). The duration from the end of treatment to LF averaged 3.35 years (range = 2-5 years).

Brief Description of the Initial Study

Clients were assessed at pretreatment using several self-report, parent-report, teacher-report, and behavioral-observation measures in addition to a structured diagnostic interview. Only participants whose primary diagnosis was one of the three childhood anxiety disorders as described in the Diagnostic and Statistical Manual for Mental Disorders (3rd ed. rev.; DSM-III-R; American Psychiatric Association, 1987) were accepted: avoidant disorder (AD), obsessive-compulsive disorder (OCD), and separation anxiety disorder (SAD). Participants were randomly assigned to either a waitlist control condition (8 weeks) or cognitive-behavioral treatment condition. The manualized, primarily child-focused 16-20 session treatment (Kendall, Kane, Howard, & Siqueland, 1990) involves (a) recognition of anxious feelings and somatic reactions, (b) the role of cognition and self-talk in exacerbating anxious situations, (c) the use of problem-solving and coping skills to manage anxiety, (d) the use of self-evaluation and self-reinforcement strategies to facilitate the maintenance of coping, and (e) implementing a FEAR plan (an acronym for steps to take when in anxious distress: Feeling frightened, Expecting bad things to happen, Actions and attitudes to take, and Results and rewards). Behavioral training strategies such as modeling, in vivo exposure, role play, relaxation training, and contingent reinforcement are used (see also Kendall, 1994; Kendall et al., 1990).

although indicating that children recall and have found value in the researcher-defined effective components of treatment, do not address the child's perception of what were curative factors in therapy. The current investigation asked children, using an open-ended format, what they recalled and what they considered important from their psychological treatment.

It was hypothesized that clients would maintain their treatment gains as evidenced by no detectable increase from 1-year follow-up (FU) to long-term follow-up (LF) in either anxiety or the concomitant hindrances their problems posed (measured by both self-report and by parent-report). The maintained gains will be evident in terms of both statistical and clinical significance. The second set of hypotheses included that nonspecific factors (Iaridi & Craighead, 1994; Strupp & Hadley, 1979) will be important to clients and that theoretically active treatment components (e.g., cognitive problem-solving skills, relaxation techniques, in vivo exposure) will be remembered and considered important parts of the children's experience of therapy.
more than one response for each question, multiple codings per question per participant were possible. Codes included coping with fear or problems, the FEAR steps, in vivo exposure tasks and intransesion role-playing, therapeutic relationship, games and activities, filling out forms, and the behavioral observation task.

The questions eliciting theoretical factors included (a) Do you remember the FEAR steps? Do you use them? (b) Do you remember the relaxation exercises? Do you use them? and (c) Do you remember doing things that we arranged that were difficult for you (i.e., in vivos)? These responses were coded according to whether the child recalled the treatment component, and examples of use of the various components were elicited and coded as to the type of situation (e.g., separation concern, general anxiety, before a test, social concern). A child was asked to elaborate if it was unclear whether he or she actually recalled the component under discussion (e.g., a child was asked to recite the FEAR steps).

Parent-Report Measures

Child Behavior Checklist (CBCL; Achenbach, 1991). The CBCL is a 118-item scale that assesses an array of behavioral problems and social competencies. The items are scored on a 3-point scale. The checklist provides T scores for specific behavior problem areas as well as for Internalizing and Externalizing factors. Stability correlations ranging from .65 to .87 have been reported for periods of as long as 2 years.

Regarding validity, Achenbach cited studies that have supported the construct validity of the measure through high correlations (range = .52-.86) between the CBCL and similar behavior checklists. Furthermore, discriminant analyses indicated that a child’s being referred for behavior problems correlated highly with high T scores on the behavior problem scales and did not correlate with scores on the Total Competence scale and that CBCL scores discriminate between diagnosably disordered children and nondisordered children. Normative data are available (Achenbach, 1991).

State-Trait Anxiety Inventory for Children—Modification of Trait Version for Parents (STAIC-P-Trait). Strauss (1987) modified the trait scale of the STAIC (Spielberger, 1973) to be used as a parent rating of the child’s trait anxiety. The STAIC-P-Trait has been found to have adequate psychometric characteristics. In addition, Strauss’ modification had good discriminative validity as well as sensitivity to treatment effects (Kendall, 1994).

Coaching Questionnaire—Parent (CQ-P). The CQ-P, like its parallel for children, assesses one’s perception of the child’s ability to manage specific anxiety-provoking situations. The measure is identical to the CQ-C but completed by the parent.

Anxiety Disorders Interview Schedule for Children (ADIS-C). The ADIS-C (Silverman, 1991) was adapted and used with parents to ascertain whether the child met DSM-III-R criteria for an anxiety disorder. In addition, interviewers asked about major life events and any alternative therapy that might have been initiated after completion of treatment. Diagnostic interviewer reliability was assessed clinic-wide, with interviewers watching videotapes of random interviews. Reliabilities for individual diagnoses (kappa; Cohen, 1977) were >.85%.

Results

Preliminary Analyses

Participant variables were examined to determine whether the participants who had decided to take part in the study differed from those who did not. T tests, comparing scores for participants versus nonparticipants at both the pretreatment and 1-year follow-up assessments, indicated nonsignificant differences on the dependent variables (mean p = .48; mean SD = .22; range = 0.10-0.95). Regarding age at treatment, gender, race, familial mental health problems, family medical problems, and household income, chi-square and t tests indicated that participants and nonparticipants did not differ significantly (mean p = .67; mean SD = .30; range = 0.14-0.86).

Reliability

Reliability for coding the RI was established using two independent raters. Following training, a random sample of protocols was coded independently. Raters met and discussed discrepancies, then coded another random sample of protocols. A kappa coefficient of 1.00 was achieved for all codes. On attaining reliability, each rater coded approximately one half of the protocols.

Primary Analyses: Maintenance

Hypotheses regarding maintenance at LF were examined using tests of statistical and clinical significance.

Statistical Significance

Participants’ scores on the dependent measures at 1-year follow-up were compared (FU) with those at LF. Two sets of analyses were conducted. First, separate multivariate analyses of variance (MANOVA) were completed for the child-report and parent-report measures. For the parent-report measures (CBCL, CQ-P, STAIC-P-Trait), the main effect for time (FU vs. LF) yielded nonsignificant differences, F(1, 18) = .34, p > .55. For the child-report measures (RCMAS, NASSQ, CQ-C, CDI), the main effect for time (FU vs. LF) again yielded nonsignificant differences, F(1, 22) = 1.58, p > .20. Both results support the hypothesis that treatment gains seen at 1-year follow-up were maintained at the long-term follow-up with no detectable diminishment. The means for the dependent variables are presented in Table 1.

Analyses were conducted to determine whether length of time posttreatment moderated treatment maintenance. Change scores were calculated for the dependent measures, and these scores were then correlated with time since treatment. Analyses indicated, with one exception, no meaningful relationship between time since therapy and outcome (all rs between -.20 and .20). For the exception, the STAIC-P-Trait, a correlation of -.40 (p = .05) was obtained, suggesting that participants who have been out of treatment the longest showed the most deterioration of gains on the STAIC.

It was of interest to determine whether the participants showed improvement from the initial pretreatment assessment (PRE) to LF. MANOVAs were again used for parent reports and child reports. For parent reports, the MANOVA revealed significant differences for the time main effect, F(1, 17) = 2 A MANOVA was used to reduce experiment-wise error rate.

Although maintenance across pretreatment diagnoses was of interest, the sample sizes for SAD and AD precluded such comparisons. Because 6% of the sample was diagnosed OAD, this disorder was examined separately. A MANOVA examined maintenance of gains for the parent-reports (CBCL, CQ-P, STAIC-P-Trait) and revealed nonsignificant differences, F(1, 11) < 1. A similar result emerged for the child-reports (RCMAS, CQ-C, NASSQ, CDI), F(1, 16) < 1.
Table 1

Means of Dependent Measures Across Assessment Periods

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretreatment</th>
<th>1 year</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>RCMAS-A</td>
<td>53.04</td>
<td>9.98</td>
<td>41.25</td>
</tr>
<tr>
<td>RCMAS-W</td>
<td>3.71</td>
<td>3.13</td>
<td>5.52</td>
</tr>
<tr>
<td>CQ-C</td>
<td>115.36</td>
<td>37.33</td>
<td>84.12</td>
</tr>
<tr>
<td>STAIC-P</td>
<td>9.64</td>
<td>7.65</td>
<td>3.78</td>
</tr>
<tr>
<td>Child report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBCL-E</td>
<td>9.98</td>
<td>41.25</td>
<td>7.68</td>
</tr>
<tr>
<td>CBCL-I</td>
<td>47.87</td>
<td>10.02</td>
<td>8.19</td>
</tr>
<tr>
<td>CBCL-A</td>
<td>11.59</td>
<td>47.87</td>
<td>7.31</td>
</tr>
<tr>
<td>STAIC-P-Trait</td>
<td>37.33</td>
<td>84.12</td>
<td>5.63</td>
</tr>
<tr>
<td>CQ-P</td>
<td>2.86</td>
<td>0.90</td>
<td>4.61</td>
</tr>
</tbody>
</table>

Note: Probabilities are for significant differences between pretreatment and long-term follow-up scores. None of the 1-year follow-up to long-term follow-up tests was significant. RCMAS-A = Revised Children's Manifest Scale—Anxiety subscale; RCMAS-W = Revised Children's Manifest Anxiety Scale—Worry subscale; CQ-C = Coping Questionnaire—Child version; NASSQ = Negative Affectivity Self-Statement Questionnaire; CDI = Children's Depression Inventory; CBCL-I = Child Behavior Checklist—Internalizing subscale; CBCL-E = Child Behavior Checklist—Externalizing subscale; CBCL-A = Child Behavior Checklist—Anxious/Depressed subscale; STAIC-P = State-Trait Anxiety Inventory for Children—Parent version; CQ-P = Coping Questionnaire—Parent version.

a Raw scores reported. b T scores reported. c Higher scores on CQ indicate higher functioning. *p < .05. **p < .01. ***p < .001.

Clinical Significance

Normative comparisons were used to examine the percentage of participants falling within normal ranges (Kendall & Grove, 1988). Already-reported results (Kendall, 1994) indicated that at FU, 78% of the participants were below clinical levels on the CBCL Internalizing scale. At LF, 74% of the participants remained below clinical levels on the CBCL (i.e., T score < 65). Using a McNemar test, this difference was nonsignificant. In addition, using ADIS-C diagnoses, at FU 66% of the participants did not receive a diagnosis of OAD, 97% did not receive a diagnosis of SAD, and 100% did not receive a diagnosis of AD. At LF, 91% of participants did not receive a diagnosis of OAD, 94% did not receive a diagnosis of SAD, and 87% of the participants did not receive a diagnosis of AD. Again, differences between these percentages, using McNemar tests, indicated nonsignificant differences. Table 2 provides the diagnoses at each time period. For the CDI, previous work has suggested that scores above 17 indicate a high likelihood of significant depressive symptomatology (Craighead, Curry, & Ilardi, 1995). At PRE, 5 of the participants’ scores were above 17. At FU and LF, only 1 participant’s score exceeded the 17 cutoff. Using a McNemar test, this difference was nonsignificant. It is interesting to note that although CDI scores did not significantly increase from FU to LF, an increasing trend was shown.

Primary Analyses: Recall Items

Analyses were performed on two sets of factors: perceived factors and theoretical factors.

Perceived Factors

Chi-square tests were conducted separately on the frequencies of responses for each question. For all questions, tests revealed significant differences among responses: χ²(8, N = 36) = 37.95, p < .001; χ²(10, N = 36) = 56.34, p < .001; χ²(4, N = 36) = 12.62, p < .025; χ²(10, N = 36) = 63.72, p < .001. Responses mentioned here were significantly more frequent than others not listed. Also those mentioned were significantly different in frequency of recall from each other. Results are presented in Table 3.

In response to Question 1 (Remember), 53% of the participants recalled that they had “dealt with fears and problems,” 25% recalled that they had “learned the FEAR steps,” 25% recalled that they had “had in vivos,” 19% recalled that there had been “games and activities,” and 17% recalled the “therapeutic

Only 3 participants responded to Question 5 (disliked), with no particular pattern.
relationship" (e.g., met with therapist, therapist was friendly). The most popular responses for Question 2 (Important) were "therapeutic relationship" (44%), "dealt with their fears and problems" (39%), "games and activities" (19%), and "had in vivos" (17%). In response to Question 3 (Unimportant), the most common responses were "the behavioral observation task" (19%) and "filling out forms and questionnaires" (17%). In response to Question 4 (Liked), the more popular responses were "games and activities" (44%), "therapeutic relationship" (28%), "dealt with their fears and problems" (19%), and "had in vivos" (19%).

To examine whether the perceived factors relate to outcomes, correlations were conducted between the various responses to the recall questions and change scores on the dependent variables from PRE to I.F. Results indicated few significant relationships (rs = —.20—.20). Recalling “games and activities" was related to an increase in STAI-P-Trait scores (r = —.45, p < .05). In addition, a response of "relaxation exercises" to the Remember question was also related to an increase in STAI-P-Trait scores (r = —.37, p < .05). A response of “games and activities" to the Important question was related to an increase in CBCL (Anxious/Withdrawn scale) scores (r = —.42, p < .05), and a response of FEAR steps to the Important question was related to a decrease in CBCL (Anxious/Withdrawn scale) scores (r = .46, p < .05). Finally, for the Liked question, a response of “dealt with fears and problems" was related to an increase in CBCL (Anxious/Withdrawn scale) scores (r = —.40, p < .05).

Theoretical Factors

Analyses of clients’ recall of theoretical factors indicated that 24% of the participants recalled at least part of the FEAR steps, and 39% reported having used them at one time, with 27% reporting their ongoing active use. Sixty-nine percent of the participants remembered the in vivo exposure experiences, 80% recalled making their end-of-treatment commercial, and 69% remembered the relaxation tape and exercises, with 33% of these participants reporting current or past use of them (28% current, 5% past). In response to a question about self-confidence, 94% of the participants stated that their self-confidence had increased, with the remaining 6% reporting that it had stayed the same.

Table 2

**DSM-III-R Diagnoses Across Assessment Periods**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pretreatment</th>
<th>1 year</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAD</td>
<td>34</td>
<td>11</td>
<td>3***</td>
</tr>
<tr>
<td>SAD</td>
<td>11</td>
<td>11</td>
<td>2**</td>
</tr>
<tr>
<td>AD</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

*Note. DSM-III-R Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev.); OAD = overanxious disorder; SAD = separation anxiety disorder; AD = avoidant disorder. Probabilities are for significant differences between pretreatment and long-term follow-up. None of the differences between follow-ups was significant.

** p < .01. *** p < .0001.

Discussion

These results suggest that child and adolescent clients, treated 2 to 5 years earlier, largely maintained their gains over anxiety-related disorders. Maintenance of treatment gains was evident on self-report and parent-report measures of anxiety, self-reported anxious self-talk, and self-reported depression. It is significant that maintenance was also demonstrated by the absence of an anxiety diagnosis as well as by the lack of clinically significant scores on the CBCL at long-term follow-up. Evidence for maintenance is bolstered by the fact that time since therapy was not significantly related to the maintenance of gains. Overall, the present data support the long-term beneficial effects of the cognitive–behavioral treatment.

Unfortunately, because control clients who were put on a waiting list eventually received treatment, alternative explanations for the results cannot be ruled out. The lack of anxiety-related problems may have resulted from, for example, maturation and not the long-term effects of a therapy. Although this

5 From over a dozen variables, only one exception was found: a —.40 correlation between time since treatment and STAI-P-Trait, suggesting that participants who had been out of treatment longer showed more deterioration on this one measure.
study did not address maturation, longitudinal epidemiological data suggest that anxiety does not go away without treatment: Children who are anxiety-disordered tend to develop into anxiety-disordered adults (e.g., Gittelman, 1986; Last, 1988). In addition, the base rate of anxiety disorder diagnoses increases with age for children and adolescents. Thus, the obtained results are unlikely given typical developmental trajectories.

Is it possible that the children in this study are well-adjusted only in terms of anxiety? The instruments used measure anxiety-related difficulties (plus one measure of depression), and one could ask whether the children in the study suffer from other problems (drug abuse, delusions, delinquency, etc.). The present study did not address the status of alternate disorders, and therefore this option cannot be eliminated. Nevertheless, the treatment was designed to address a specific form of disorder, and the maintenance of this specific effect was supported.

Regarding the recall of treatment factors, the results lend some support to conclusions from studies of adults suggesting that the relationship with a therapist and dealing with (talking about) problems are perceived as valuable components of treatment (e.g., Llewelyn et al., 1988). In addition, some of our theoretical factors (e.g., relaxation exercises, in vivos, FEAR steps) received support in their being recalled frequently. This finding is similar to the prior child-therapy study of recall (Kendall, 1982), again suggesting that children recall (and utilize) particular strategies and components introduced in a therapeutic intervention.

Very few of the perceived factors were related to outcome in a meaningful way. More significant relationships emerged between improvement and the theoretical factors, suggesting that these factors may play a more integral part in the effectiveness of a treatment. For example, recall of the FEAR steps was related to change from PRE to LF on two separate measures of improvement (self- and parent-report), and recall of the relaxation exercises was associated with changes on four of eight measures of anxiety and depression (all self-report). Overall, although only a moderate number of relationships were significant, the recall of theoretically important components of treatment was related to positive treatment effects. Nevertheless, a relationship between recall and outcome does not provide a compelling argument that the factors caused the improvement or maintenance, but it merely suggests a relatively important role for certain factors in the therapeutic process. Future research along these lines would be informative.

Most of the clients in this study were diagnosed with OAD. OAD has been excluded in favor of generalized anxiety disorder (GAD) in the fourth edition of the DSM (American Psychiatric Association, 1994). The treatment studied here and elsewhere (e.g., Kendall, 1994) is useful with children who suffer from OAD. The exact effects of the change in nosology in terms of the application of treatment is at this point uncertain, although the similarity of OAD and GAD (Kendall & Warman, in press) suggests that the treatment described in this study is likely to be useful with GAD youth.

References


**Call for Nominations**

The Publications and Communications Board has opened nominations for the editorship of *Developmental Psychology* for the years 1999-2004. Carolyn Zahn-Waxler, PhD, is the incumbent editor.

Candidates should be members of APA and should be available to start receiving manuscripts in early 1998 to prepare for issues published in 1999. Please note that the P&C Board encourages participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. Self nominations are also encouraged.

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