Attachment-Based Family Therapy for Depressed Adolescents: A Treatment Development Study

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ABSTRACT

Objective: To design a treatment manual and adherence measure for attachment-based family therapy (ABFT) for adolescent depression and to collect pilot data on the treatment's efficacy. Method: Over a period of 2 years, 32 adolescents meeting DSM-III-R criteria for major depressive disorder (MDD) were randomly assigned to 12 weeks of ABFT or a 6-week, minimal-contact, waitlist control group. The sample was 78% female and 69% African American; 69% were from low-income, inner-city communities. Results: At post-treatment, 81% of the patients treated with ABFT no longer met criteria for MDD, in contrast with 47% of patients in the waitlist group. Mixed factorial analyses of variance revealed that, compared with the waitlist group, patients treated with ABFT showed a significantly greater reduction in both depressive and anxiety symptoms and family conflict. Of the 15 treated cases assessed at the follow-up, 13 patients (87%) continued to not meet criteria for MDD 6 months after treatment ended. Conclusions: ABFT appears to be a promising treatment and worthy of further development.
Depression during adolescence can seriously compromise current and future functioning (Lewinsohn and Clarke, 1999). Unfortunately, treatment research for this population is limited. Evidence of the efficacy of antidepressant medication over placebos had been minimal (Birmaher et al., 1996) until recently, when two randomized clinical trials documented the promise of some newer serotonin selective reuptake inhibitors (Emslie et al., 1997; Keller et al., 2001). In a recent review of psychosocial treatments for this population, Kaslow and Thompson (1998) identified seven treatment and prevention studies, and three new studies have been published since (Clarke et al., 1999; Mufson et al., 1999; Rosselló and Bernal, 1999). Eight of these studies tested some form of cognitive-behavioral therapy (CBT), while three studies examined interpersonal therapy. All investigations demonstrated positive outcomes for the active interventions immediately after treatment. Follow-up evaluations, however, have indicated that 25% to 50% of recovered patients relapsed within 6 to 24 months after treatment (Birmaher et al., 2000). Furthermore, except for the Puerto Rican sample in the Rosselló and Bernal (1999) project, all other studies mostly treated white working- and middle-class patients. Given this current state of knowledge, more research on existing and new treatments is needed with more ethnically diverse populations before recommendations can be made regarding empirically based, best practice models.

One modality that warrants more investigation for treating depressed adolescents is family-based therapy. Extensive empirical evidence links family factors to the development, maintenance, and relapse of child and adolescent depression. These factors include (1) disengagement or weak attachment bond, (2) high levels of criticism and hostility, (3) parental psychopathology, and (4) ineffective parenting (Kaslow et al., 1994; Sheeber et al., 2001). Two intervention studies have also shown that family dysfunction contributes to slower recovery and relapse (Birmaher et al., 2000; Emslie et al., 1997). In addition, appropriate parent–adolescent attachment can promote adolescent autonomy and competence (Allen et al., 1998; Kobak and Sceery, 1988). Based on this kind of evidence, several investigators have put forth family and interpersonal models of depression (see Joiner and Coyne, 1999) and encouraged the development of treatments that target the contextual and developmental factors associated with child and adolescent disorders (Hammen et al., 1999; Kazdin and Kendall, 1998).

Given the empirical and theoretical support, surprisingly few investigations of family-based treatments for depressed adolescents exist. Lewinsohn et al. (1990) and Clarke et al. (1999) added a parent training group to a CBT skills training group for adolescents, but found no additional benefits. Brent et al. (1997) found that CBT was more effective than family therapy or individual supportive therapy on some indicators at post-treatment, but found few differences at follow-up. Fristad and colleagues (1998) have developed a promising family-based psychoeducational program as an adjunct to other treatments. No other family-focused treatment models have been developed and tested for this population.

To address this need, we developed attachment-based family therapy (ABFT) (Diamond and Siqueland, 1995). ABFT fits within the modern tradition of empirically informed, developmentally and culturally sensitive psychotherapy (Henggeler et al., 1998; Liddle, 1999; Shirk and Russell, 1996). ABFT is based on structural (Minuchin, 1974) and multidimensional family therapy (Liddle, 1999) and draws from contextual therapy (Boszormeny-Nagy and Sparks, 1984), emotion-focused therapy (Greenberg and Johnson, 1988), and attachment theory (Bowlby, 1969; Kobak and Sceery, 1988). The underlying assumption of ABFT is that poor attachment bonds, high conflict,
harsh criticism, and low affective attunement can lead to physical or emotional neglect, abuse, and abandonment. This kind of negative family environment inhibits children from developing the internal and interpersonal coping skills needed to buffer against the family, social, and community stressors that can cause or exacerbate depression (Cummings and Cicchetti, 1990; Rudolph et al., 2000). An equally important assumption of ABFT is that attachment failures can be resolved, parents can become better caregivers, and adolescents can rebuild trust and communication with their parents. Improvement in these domains is hypothesized to bring about a reduction in depression and prevent its relapse. This report presents the results of an ABFT treatment development project that involved three steps: (1) writing a treatment manual, (2) developing an adherence measure, and (3) collecting pilot data. These products are the essential tools needed to standardize and monitor the implementation of a psychosocial intervention in a large clinical trial.

METHOD

Procedures

Sample.

Patients included in the study had a DSM-III-R primary diagnosis of major depressive disorder (MDD), were between the ages of 13 and 17 years, and had a primary caretaker willing to participate in treatment. The mean age of the 32 randomized patients was 14.9 years (SD = 1.5). Twenty-five (78%) were female, 22 (69%) were African American, and 10 (31%) were white. Patients were primarily referred by schools or parents. The majority (80%) came from single-parent families, and 69% reported less than $30,000 annual income (34% reported ≤$20,000). Patients reported that in the prior 6 months they had heard random gunshots (47%), had family members who were using drugs or alcohol (31%), or had unwanted sexual experiences (19%). We kept the assessment battery short to better engage this population. Therefore, comorbid diagnoses are not available. However, on the Child Behavior Checklist (Achenbach, 1991a), parents reported that 47% of the sample were above the clinical cutoff for delinquency and 30% for aggressiveness. Finally, using the Brief Symptom Inventory (Derogatis, 1993; Derogatis and Spencer, 1982) to describe their own psychiatric distress, parents reported clinical levels of depression (42%), anxiety (47%), and hostility (37%).

Screening.

A multigate screening procedure was used. Patients were administered an initial Beck Depression Inventory (BDI) (Beck et al., 1961) over the telephone, and then a second BDI 1 week later. If scores on both BDIs were 16 or greater, the family was invited for a full evaluation. After a formal consent was signed by all family members, the adolescent and parent were separately interviewed with the depression section of the Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present Episode version (K-SADS-P) (Kaufman et al., 1997). Of the 307 screened referrals, 221 patients met exclusion criteria (38% had an initial BDI score <16 or reported other problems as primary, 9% were already receiving antidepressant medication or psychotherapy, 3% reported >13 days of substance use in the previous 90 days, 2% needed a higher level of care, and 20% met other exclusion criteria). Twenty-eight percent of the referrals either declined treatment or failed to attend the intake session. Of the 86 participants who received a full evaluation, 54 were excluded for having psychotic features (37%), failure to meet criteria for MDD (37%), or refusal to participate (26%). The remaining 32 patients met all inclusion criteria and were randomized into the study.

Study Design.

Patients were randomly assigned to 12 weeks of ABFT or 6 weeks of a waitlist control condition. Besides the baseline assessment at intake, patients receiving ABFT were assessed at mid-treatment (6 weeks) and at post-treatment (12 weeks), and some were evaluated at follow-up (6 months post-treatment). Although a 12-week waitlist is methodologically preferable, we deemed it
unethical to withhold treatment from this population for that long. In addition, comparison with a second treatment seemed premature for this treatment development phase. This design has precedent in other studies (e.g., Kendall, 1994) and received full institutional review board approval from Children's Hospital.

Waitlist Control.

These participants received weekly 15-minute telephone calls restricted to monitoring for potential clinical deterioration with a BDI. These patients were reassessed with the full intake battery at 6 weeks. All but one patient participated in the post-waitlist assessment. After the waitlist period, 9 (56%) of the 16 patients still met eligibility criteria and were offered the ABFT treatment. The treatment data from these cases were not included in the primary outcome data.

Manual Development.

We organized the treatment manual around five treatment tasks (Table 1). For each task, we have articulated risk and protective factors, therapist intervention strategies, positive and negative patient responses and performance patterns, and desired outcomes. To accomplish this, we reviewed the literature, treated 10 pilot cases, performed intensive videotape analysis, conducted several process research studies, and wrote up several case studies. All this information has been integrated into the manual.

<table>
<thead>
<tr>
<th>Problem States</th>
<th>Treatment Tasks</th>
<th>Expected Outcomes</th>
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<tbody>
<tr>
<td>Parent criticism/hostility</td>
<td>Relational reframe</td>
<td>Reduce blame/increase mutual respect</td>
</tr>
<tr>
<td>Low adolescent motivation/engagement</td>
<td>Alliance building</td>
<td>Bonding, identifying goals, commitment to treatment</td>
</tr>
<tr>
<td>Parental stress/ineffective parenting</td>
<td>Alliance building/parent education</td>
<td>Promote emotional coaching and authoritative parenting</td>
</tr>
<tr>
<td>Family disengagement</td>
<td>Reattachment</td>
<td>Rebuilding trust, respect, and dependability</td>
</tr>
<tr>
<td>Negative self-concept</td>
<td>Promoting competency</td>
<td>Increase autonomy</td>
</tr>
</tbody>
</table>

Overview of ABFT.

Repairing attachment and promoting autonomy are the overarching goals, achieved through five specific treatment tasks. The *Relational Reframe Task* sets the foundation for the treatment by shifting the family’s focus from “fixing” the patient to improving family relationships (Diamond and Siqueland, 1998). This cognitive shift reduces blame and criticism, focuses treatment on family strengths, and holds all family members responsible for change. The *Adolescent Alliance-Building Task* is developed individually with the patient. It focuses on building a therapist–adolescent bond, identifying and exploring core family conflicts that have damaged trust, and preparing the adolescent to discuss these issues with the parents. The *Parent Alliance-Building Task* begins with an exploration of the parents’ own current stressors and history of attachment failures (Diamond et al., 2000). This fosters empathy in the parents toward the adolescent. Consequently, parents become more receptive to emotionally coaching (Gottman et al., 1996) their adolescent in future sessions, through the discussion of past traumas and felt injustices.

The *Attachment Task* begins with the adolescent disclosing previously unexpressed anger about core conflicts, usually regarding betrayal, abandonment, or abuse (Diamond and Stern, 2001). If the parent responds empathetically, adolescents often disclose more vulnerable emotions such as sadness and disappointment. The parent’s sincere remorse can promote adolescent forgiveness. Regardless of whether these conflicts are resolved, discussions about these avoided, “hot” topics can diffuse tension, improve affect regulation, and increase mutual respect. In addition, when adolescents feel acknowledged by parents, they often become more receptive to parental support and authority. The *Competence-Promoting Task* fosters the adolescent’s connections and success outside the home (e.g., school, peers, work, etc.). With attachment to parents on the mend, the
family can serve as a secure base from which the adolescent can explore his or her emerging autonomy.

Each of these tasks takes one to three sessions to accomplish. Partial success is often good enough to move treatment forward. Treatment can include all family and extrafamilial members (e.g., teachers), but the therapist flexibly determines the composition of each session based on the evolving treatment plan.

Adherence Measure.

Our adherence instrument is based on a measure developed by Hogue et al. (1998) to assess multidimensional family therapy (Liddle, 1999). Several items were rewritten to capture the essential interventions in ABFT (relational reframe, vulnerable emotions, etc.). CBT items were used to ensure that ABFT could be discriminated from an alternative treatment. To validate the instrument, we trained 10 raters (mostly undergraduate students) for 40 hours. Fifty videotapes of ABFT were rated twice. Unable to obtain videotapes of CBT with depressed adolescents, we rated 25 tapes of CBT with substance-abusing adolescents from a similar racial and economic background. Although this sampling presented some limitations, it was the best compromise given available resources.

The adherence study resulted in a 20-item adherence tool. For the 16 items unique to ABFT, intraclass correlation coefficients ranged from 0.72 to 0.96. The four common alliance items received scores between 0.54 and 0.67. Factor analyses with a Promax rotation yielded a four-factor solution, with factor 1 representing CBT interventions and factors 2, 3, and 4 representing ABFT interventions. Mean factor scores suggested that these factors clearly distinguished the two treatments and that ABFT could be characterized by a strong focus on interventions targeting affect and vulnerable emotions, a cornerstone of the model (Diamond et al., 1999).

Therapists.

Treatment was delivered by four doctoral-level and two master's-level therapists (one African-American female, one Latino female, one white female, and three white males). Three therapists had more than 10 years of experience, and three had more than 5 years of post-master's experience. All but one of the therapists were experienced in family therapy. All received training and weekly supervision from the first author, including regular live supervision.

Treatment Dosage.

The number of weekly sessions (60–90 minutes) attended ranged from 3 to 12, averaging 8. Nineteen percent of patients attended all sessions, 25% attended 9 to 11, 44% attended 5 to 8, and 12% attended 3 sessions. Therapists also had weekly telephone contact with each family as needed.

Measures

All interviews were conducted by trained master's-level and doctoral-level diagnosticians. Cronbach α values were calculated on all relevant scales to ensure internal consistency with this predominantly African-American population. All α values were in the acceptable range.

The K-SADS-P (Kaufman et al., 1997) is a semistructured diagnostic interview commonly used in studies of childhood depression. Final diagnostic decisions were made in a weekly consensus meeting with a senior diagnostician. Interviewers were kept blind to treatment conditions. Using videotapes, an independent diagnostian rated 20% of the interviews, and an intrarater reliability index of 100% for MDD diagnosis was achieved.

The 24-item Hamilton Depression Rating Scale (HAM-D) (Hamilton, 1960) is a semistructured interview that assesses the severity of depression. Its reliability and validity are comparable with
those of the BDI, the 17-item HAM-D, and the 17-item depression scale derived from the K-SADS (McConville et al., 1995).

The BDI (Beck et al., 1988) is a 21-item self-report instrument that assesses the severity of depressive symptoms over the previous week. Its reliability and validity have been well-established (Beck et al., 1988).

The Self-Report of Family Functioning (SRFF) (Bloom, 1985) has shown adequate internal consistency (Stark et al., 1990) and construct validity (Bloom, 1985). Only adolescent self-reports on the Expressiveness, Conflict, and Cohesion subscales were used in this study.

The Inventory of Parent and Peer Attachment (Armsden and Greenberg, 1987) assesses the positive and negative affective and cognitive dimensions of adolescents' relationship to their mothers, fathers, and peers using a 25-item, 5-point Likert scale. We used only the adolescent's report on the mother. Adequate test-retest reliability and validity data have been reported (Armsden and Greenberg, 1987).

The Beck Hopelessness Scale (Beck et al., 1974) is a 20-item, true/false scale that measures the adolescent's negative attitudes about the future. Reliability and validity have been consistently high.

The State-Trait Anxiety Inventory for Children: A-Trait (STAIC) (Spielberger, 1973) is a 20-item scale designed to measure trait anxiety. Adequate normative, reliability, and validity data have been reported (Spielberger, 1973).

The Suicidal Ideation Questionnaire (Reynolds, 1988) assesses current level of suicidal ideation. The scale consists of 15 items rated on a 7-point Likert scale. Adequate reliability and content and construct validity have been reported (Reynolds, 1988).

The Youth Self-Report (Achenbach, 1991b) is a 112-item standardized tool designed to obtain self-reports of adolescents' own competencies and problems. T scores of 65 or greater are considered to be in the clinical range. Adequate reliability and validity data have been reported (Achenbach, 1991b). In addition to the standard 6-month time frame, adolescents also rated these items for “the last 2 weeks” both at pre and post assessments.

Analytic Plan

We used $\chi^2$ analyses to compare group differences on the percentage of patients with no MDD diagnosis at the end of treatment. Treatment effects for the main outcome measures were analyzed with 2 × 2 mixed factorial analyses of variance with condition (treatment versus waitlist) as the between factor and time (pre- versus post-treatment/waitlist) as the within factor. Interaction effects were interpreted in variables yielding both significant main and interaction effects. Clinical significance was examined by percentage of adolescents with BDI scores in a nonclinical range. Treatment outcome data on the sample initially assigned to the waitlist are used in the exploratory analysis only.

RESULTS

Group Equivalence Tests

A series of $\chi^2$ and t tests was used to examine baseline differences between the groups. Analyses revealed no significant group differences on any demographic or pre-treatment severity scores. Furthermore, there were no significant outcome differences among therapists on presence of post-treatment diagnosis ($\chi^2 = 5.90, p = .32$) or pre-to-post change in adolescent BDI scores ($F_{1,25} = 1.26, p = .33$).

Primary Analyses

Change in Diagnosis

Of the 16 initial treatment cases, 13 (81%) no longer met criteria for MDD at post-treatment, while 7 (47%) of the 15 patients on waitlist no longer met criteria for MDD at post-waitlist ($\chi^2 = 4.05, p = .04$).

Change in Symptoms

Results reveal a significant condition-by-time interaction in depressive symptoms as measured by the HAM-D ($F_{1,26} = 9.3, p = .005$, effect size [ES] = 1.21) and anxiety symptoms as measured by the
STAIC ($F_{1,28} = 8.6, p = .007, ES = 1.24$) (Table 2). Participants receiving ABFT reported significantly lower levels of depressive symptoms and trait anxiety at post-treatment than did participants in the waitlist group at post-waitlist. Analyses also yielded a significant condition-by-time interaction on child-reported levels of conflict in the family (SRFF-Conflict subscale) ($F_{1,25} = 5.2, p = .03, ES = 1.21$). Patients receiving ABFT reported significantly less family conflict post-treatment than did patients in the waitlist group. The interaction between condition and time approached significance on three other outcome variables. Adolescents treated with ABFT reported higher levels of attachment to their mothers ($F_{1,24} = 3.6, p = .07, ES = 0.63$), lower levels of suicidal ideation ($F_{1,28} = 3.15, p = .09, ES = 0.52$), and lower levels of hopelessness ($F_{1,28} = 3.38, p = .08, ES = 0.78$) at post-treatment compared with patients at the end of the waitlist period. No statistically or clinically significant differences were found on either the Internalizing or Externalizing scale of the Youth Self-Report.

<table>
<thead>
<tr>
<th>Measure</th>
<th>ABFT ($n = 16$)</th>
<th>Waitlist ($n = 16$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>6 Week</td>
</tr>
<tr>
<td>BDI</td>
<td>Mean</td>
<td>23.8</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>7.4</td>
</tr>
<tr>
<td>HAM-D</td>
<td>Mean</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>5.6</td>
</tr>
<tr>
<td>IPPA-m</td>
<td>Mean</td>
<td>80.1</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>22.0</td>
</tr>
<tr>
<td>STAIC</td>
<td>Mean</td>
<td>43.9</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>6.0</td>
</tr>
<tr>
<td>SIQ</td>
<td>Mean</td>
<td>34.2</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>21.8</td>
</tr>
<tr>
<td>BHS</td>
<td>Mean</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>5.6</td>
</tr>
<tr>
<td>SRFF-Cohesion</td>
<td>Mean</td>
<td>13.4</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2.8</td>
</tr>
<tr>
<td>SRFF-Express</td>
<td>Mean</td>
<td>12.3</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>3.1</td>
</tr>
<tr>
<td>SRFF-Conflict</td>
<td>Mean</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>3.1</td>
</tr>
<tr>
<td>YSRint</td>
<td>Mean</td>
<td>65.4</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>9.3</td>
</tr>
</tbody>
</table>
### TABLE 2 -- Pre- and Post-Treatment Means and Standard Deviations for ABFT and Waitlist

<table>
<thead>
<tr>
<th>Measure</th>
<th>ABFT (n = 16)</th>
<th>Waitlist (n = 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>6 Week</td>
</tr>
<tr>
<td>YSRext</td>
<td>Mean</td>
<td>57.2</td>
</tr>
<tr>
<td>SD</td>
<td>10.0</td>
<td>10.1</td>
</tr>
</tbody>
</table>

Note: ABFT = attachment-based family therapy; BDI = Beck Depression Inventory; HAM-D = Hamilton Depression Rating Scale; IPPA-m = Inventory of Parent and Peer Attachment-mother; STAIC = State-Trait Anxiety Inventory for Children-Trait version; SIQ = Suicidal Ideation Questionnaire; BHS = Beck Hopelessness Scale; SRFF-Cohesion = Cohesion subscale for Self-Report of Family Functioning; SRFF-Express = Expressiveness subscale for Self-Report of Family Functioning; SRFF-Conflict = Conflict subscale for Self-Report of Family Functioning; YSRint = Youth Self-Report Internalizing subscale, 2 weeks; YSRext = Youth Self-Report Externalizing subscale, 2 weeks. Only selected measures were available at the 6-week (treatment) assessment point.

Clinical Significance.

This analysis examined the number of adolescents who had post-treatment/waitlist BDI scores in the nonclinical range (BDI ≤ 9; Brent et al., 1997). A significant group difference was noted ($\chi^2_1 = 6.37, p = .01$), with 62% of the adolescents treated with ABFT reporting a BDI ≤ 9, contrasting with 19% of adolescents in the waitlist group.

Six-Week Analyses.

To compare the two groups at an equivalent time point, data from the mid-treatment ABFT assessment (6 weeks) was compared with post-waitlist data. The same analytic approach used with the 12-week treatment data was used in these analyses. Only scores on the BDI and three subscales of the SRFF (Cohesion, Conflict, and Expressiveness) were available for these analyses. Analyses of variance on all measures yielded nonsignificant results. However, an analysis of clinical significance revealed a significant group difference ($\chi^2_1 = 4.80, p = .03$). Of the adolescents treated with ABFT, 56% had a BDI ≤ 9 at 6 weeks, contrasting with 19% of adolescents in the waitlist condition.

Exploratory Analyses.

To examine the impact of ABFT on a larger sample size, we conducted outcome analyses using all treated patients (16 cases initially randomized to ABFT and eight waitlist participants who later received ABFT treatment). In this combined sample of 24, twenty patients (83%) no longer met diagnostic criteria for MDD at post-treatment. A series of paired-sample $t$ tests demonstrated that these gains were complemented by a significant change in 8 of the 11 outcome variables ($p$ values ≤ .005). Post-treatment, patients reported significantly lower levels of depressive, internalizing, and externalizing symptoms, as well as less hopelessness, suicidal ideation, trait anxiety, and perceived family conflict than they did at pre-treatment.

Six-Month Follow-up.

Midway through the study, funding was obtained for follow-up assessments. Of the combined, exploratory sample of 24 patients, 15 patients were assessed at follow-up (8 from the original ABFT condition and 7 from ABFT after waitlist). Thirteen (87%) of these patients did not meet criteria for MDD 6 months after the end of treatment. Patients with and without 6-month follow-up data did not differ significantly on post-treatment depression severity scores or family measures, suggesting that there were no selection biases in the follow-up sample.
This article presents data on the first manual-based family therapy specifically designed for treating adolescents with MDD that has been shown to be successful in comparison with a no-treatment control condition. Patients treated with ABFT showed significant decreases in rates of depression diagnosis and severity of depression and anxiety symptoms. ABFT patients also reported nearly significant decreases in hopelessness and suicidal ideation and an increase in attachment to mothers. The percentages of adolescents with no MDD diagnosis at the end of ABFT treatment are equivalent to or higher than those reported in other psychosocial treatments with depressed adolescents (e.g., Brent et al., 1997; Clarke et al., 1999). The clinically significant gains for 62% of the initially treated sample are comparable with the Lewinsohn and Clarke (1999) finding that, on average, 63% of depressed adolescents treated with CBT showed clinically significant improvement. Overall, these data suggest that ABFT may be a viable alternative to other treatments and therefore warrants further development and testing.

It is interesting that no significant difference was found between the two groups on mean BDI scores at post-treatment phase. This is most likely due to the large variability in outcome on this measure, especially within the waitlist group. However, it is not uncommon for 50% to 70% of patients on waitlist or placebo to show a significant reduction in depression (Birmaher et al., 1996). However, when we considered clinical significance, only 19% of patients on the waitlist had scores below clinical level (BDI ≤9) post-waitlist.

This study also provides initial support for the hypothesized mediational factors of ABFT. Specifically, ABFT produced a significant reduction in adolescent-perceived family conflict and a nearly significant increase in adolescent-perceived levels of attachment to mothers. Although causality cannot be inferred from these findings, these data lend support to the assumption that improvement in family relationships is associated with a decrease in depression. The 6-month data indicate some stability to these results. This finding is particularly promising given that in other studies, family dysfunction put patients at risk for slower recovery and relapse (Birmaher et al., 1996; Emslie et al., 1997). Whether family improvement mediates changes in depression needs to be tested in a larger study using formal mediational analysis.

Of interest, clinical improvement (BDI ≤9) in ABFT was achieved by 56% of adolescents by mid-treatment, and only an additional 6% by post-treatment. ABFT may have its greatest impact on depression within the first 6 weeks, a finding consistent with the pattern of early improvement noted in other psychosocial treatments (e.g., Brent et al., 1997; Ilardi and Craighead, 1994). In contrast, a significant reduction in family conflict was not achieved until the post-treatment assessment (12 weeks), suggesting that gains in this domain may take longer to produce. Future studies should explore the issue of treatment duration, dosage, and whether or not improvement in family functioning prevents relapse.

Limitations
First, the waitlist condition lasted only half as long as the treatment condition. Possibly within 12 weeks, more waitlisted patients would have shown more improvement. This is hard to judge given that, while the placebo response is typically high, naturalistic studies indicate that 6 months is the average duration of untreated MDD (Lewinsohn et al., 1994). Second, the small sample size limits our ability to conclusively demonstrate treatment efficacy or to examine moderator variables such as history of recurrence or comorbid conditions. However, the significant outcomes and moderate effect sizes suggest that these results would likely be strengthened with a larger sample.

Finally, both a strength and limitation of this study is that nearly 70% of the sample were low-income, inner-city African-American females. This study suggests that ABFT seems to be an effective intervention with this population. In particular, we find these patients to be family-oriented and have experienced high rates of trauma and loss. Consequently, goals of improving communication, repairing trust, and resource-building seem engaging and relevant. However, from this study, we cannot assume that ABFT will generalize to other populations. Several studies do suggest that reducing family conflict and increasing family cohesion can benefit a wide range of troubled youths from a variety of economic and cultural backgrounds (Diamond and Siqueland,
We can conclude from this study that this population will participate in clinical trials of psychotherapy, and therefore more investigators should strive to include them in future studies.

Clinical Implications

ABFT seems to be a viable and effective treatment for youths struggling with depression. As judged from the results of this pilot work, it appears that resolving core family conflicts and past traumas and strengthening adolescent attachment to, and trust in parents can decrease depression in adolescents. ABFT provides a well-structured, easy-to-learn manual and a validated adherence measure that facilitates its training and monitoring for clinical and research purposes. Overall, ABFT is a promising therapy that needs further investigation as a stand-alone treatment and in combination with other approaches.

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