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Therapeutic alliance in family therapy and clinical outcomes among adolescents at risk for mood disorders

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Abstract

Background: Family-focused therapy (FFT) is associated with longer intervals between mood episodes and reductions in suicidal ideation among adolescents at risk for bipolar disorders. However, the mediating processes underlying the efficacy of FFT are not well understood. In an open trial of an 18-week FFT program, we explored the association between the therapeutic alliance of adolescents/parents with their therapists and the symptomatic outcomes of adolescents over 18 weeks.

Method: Participants were enrolled in a treatment development trial of FFT supplemented with a mobile app. We used the System for Observing Family Therapeutic Alliances (SOFTA) to rate alliance between adolescents, parents, and therapists using videotaped FFT sessions from the beginning and end of treatment. Pearson correlations were computed between SOFTA alliance ratings and changes in Children's Depression Rating Scale, Revised (CDRS-R) scores over 18 weeks of treatment.

Results: SOFTA ratings were obtained from sessions conducted with 17 adolescents (mean age 14.9+/−2.0 years; 41.2% female) and 22 parents. CDRS-R ratings were obtained from 16 adolescents at baseline and 18 weeks. Parents had significantly higher levels of engagement and emotional connection with therapists than their offspring. Adolescents' therapeutic engagement scores were significantly correlated with reductions in CDRS scores over 18 weeks ($r(14) = -0.58$, $p = 0.018$; $N = 16$).

Limitations: We could not draw conclusions about the causal relationship between therapeutic alliance and improvement in depression.

Conclusions: Among high-risk adolescents undergoing FFT, therapeutic alliance is associated with clinical improvement over 4 months. Strategies to enhance adolescent engagement may strengthen the long-term effects of family interventions.

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Author statement

Dr. Miklowitz (Principal Investigator) had full access to all study data and takes responsibility for the integrity of the data and accuracy of the data analysis.

Dr. Miklowitz contributed to the design of the study. Dr. Weintraub contributed to data management and analysis. Ms. Wong and Ms. Carta contributed to the acquisition and interpretation of study data.

Dr. Miklowitz provided administrative and material support.

All authors contributed to the drafting and critical revision of the manuscript, and have approved the final article.

Keywords

Families; Bipolar disorder; Treatment relationship; Depression; Family-focused therapy

1. Introduction

Increasing recognition of the early stages of recurrent major depression and bipolar disorder has led to the development of early interventions for high-risk populations (Rueter et al., 1999; Skjelstad et al., 2010). One such treatment, family-focused therapy (FFT), uses psychoeducation, communication enhancement, and problem-solving skills training to address the role of familial stress and conflict in precipitating pediatric-onset mood episodes (Miklowitz et al., 2004). In a clinical trial of symptomatic youth (aged 9–17 years) with parents with bipolar I or II disorder, youth who received 12 sessions of FFT had longer well intervals between episodes and reduced suicidal ideation compared to those in a standard psychoeducational treatment over 1–4 years (Miklowitz et al., 2020a). Given the potential benefits of family intervention in youth at risk for mood disorders, it is important to understand the mediating processes or “active ingredients” of treatment that may help explain its clinical effects.

Therapeutic alliance refers to the emotional bond that develops between patients and therapists, and the degree to which they collaborate and agree on treatment goals (Bordin, 1979). Alliance is a well-studied predictor of symptomatic outcome among adolescents undergoing individual psychotherapy (Shirk et al., 2011). Studies examining therapeutic alliance and clinical outcomes in family therapy have focused on adolescents with substance abuse (Robbins et al., 2008), conduct disorder (Mattos et al., 2017), and anorexia nervosa (Rienecke et al., 2016). To our knowledge, no study has examined therapeutic alliance in family therapy for adolescents with or at risk of mood disorders.

This study was conducted in the context of a demonstration trial of FFT for symptomatic adolescents with at least one parent with major depression or bipolar disorder. Families received 12 sessions of family psychoeducation, communication enhancement training and problem-solving skills training in conjunction with an experimental mobile phone app that encouraged the use of coping skills (Miklowitz et al., 2020b). In the present study, we explored the association between therapeutic alliance ratings of adolescents and their parents with assigned family clinicians, and changes in adolescents’ levels of depression over the 4-month course of FFT. Because parents typically initiate family therapy for a teen’s adjustment, we predicted that parents would have stronger alliances with therapists than would adolescents. Second, we hypothesized that higher parent and adolescent alliance scores would be associated with greater reductions in adolescents’ depression scores over the 4-month course of FFT.

2. Methods

2.1. Participants

Adolescents met the following eligibility criteria: (1) ages 13 – 19 years; (2) history of mood instability and impairment, as evidenced by a score ≥ 6 on the Parents' General Behavior Inventory 10-item scale for Mania (Youngstrom et al., 2008) or ≥ 20 on the parent- or adolescent-rated Children's Affective Lability Scale (Gerson et al., 1996); (3) current and impairing mood symptoms (score > 11 on the Young Mania Rating Scale (YRMS; Young et al., 1978) or > 29 on the Children's Depression Rating Scale, Revised (CDRS-R; Poznanski and Mokros, 1995); (4) at least one parent with a history of DSM-5 (American Psychiatric Association, 2013) major depressive disorder or bipolar disorder; and (5) at least one parent was rated by the adolescent or themselves as 'high' (score of 5 or higher) on the 10-point severity of Perceived Criticism Scale (PCS; Masland and Hooley, 2015). Adolescents were excluded for substance use disorder in the past four months, autism spectrum disorder, or intellectual disability. The study was reviewed and continuously approved by the UCLA Medical Institutional Review Board. All adolescents and parents signed university-approved assent and consent forms prior to participating.

2.2. Treatment

Adolescents entered treatment after a baseline diagnostic assessment using the MINI International Neuropsychiatric Interview, Child and Adolescent Version for DSM-5 (Sheehan, 2016). All families received FFT from a trained clinician with at least an MA degree. The 12 sessions (8 weekly, 4 biweekly, over 4 months) consisted of three phases: *psychoeducation*, in which the adolescent and family members learned about the symptoms of mood disorders, the role of stress in mood episodes, and mood management strategies; *communication enhancement training*, in which participants learned to modify their approach to family conflict through active listening, offering positive as well as negative feedback to other family members, and making clear requests; and *problem-solving skills training*, in which family members worked to define, generate solutions to, and implement collaborative solutions to self-identified problems. Adolescents and parents were asked to chart their symptoms and weekly practice of FFT skills using an experimental mobile phone app, as described elsewhere (Miklowitz et al., 2020b).

2.3. Outcome assessments

Adolescent participants were assessed for depression severity at baseline and post-treatment (18 weeks following baseline) using the CDRS-R. Total scores on the CDRS-R were based on a consensus of adolescent and parent reports from semi-structured interviews. This scale has been shown to have good reliability and validity in adolescents with depression (Mayes et al., 2010) and was sensitive to change in the present sample (Miklowitz et al., 2020b).

2.4. Therapeutic alliance

Two independent raters used the System for Observing Family Therapy Alliances - Observational measure (SOFTA-O, Friedlander et al., 2006), which consists of four subscales: Engagement in the Therapeutic Process, Emotional Connection to the Therapist,

Safety within the Therapeutic System, and Shared Sense of Purpose within the Family. Each family member received one rating on the first three subscales and the family unit received one rating on Shared Sense of Purpose. For each subscale, relevant behaviors were tabulated and used to assign ratings between −3 (extremely problematic) to +3 (extremely strong). Target behaviors included both alliance-enhancing and alliance-detracting actions of the patient and parents. For example, for the Engagement in the Therapeutic Process subscale, a patient who introduced a problem for discussion received a score of 1 or greater, whereas one who only expressed indifference to the tasks of therapy (e. g., gave half-hearted answers) received a score or −1 or lower. Final ratings for a given therapy session were based on the balance of alliance-enhancing and -detracting behaviors. The SOFTA-O has shown good reliability and validity in several studies (Friedlander et al., 2006).

Prior to conducting SOFTA ratings for this study, a primary rater (NRW) underwent a 15-hour training period consisting of using the SOFTA-O manual (Friedlander et al., 2004) to rate standardized practice tapes, and then rating 10 FFT sessions as reliability tapes. The primary rater then led a second rater (KEC) through the same training, with independent ratings of these same 10 reliability tapes. Intraclass correlation coefficients (ICCs) computed from the 10 tapes yielded the following reliabilities: Engagement in the Therapeutic Process, 0.97; Emotional Connection to the Therapist, 0.99; Safety in the Therapeutic System, 0.98; and Shared Sense of Family Purpose, 0.99 (for all, $p < 0.01$). All alliance ratings used in data analyses were made independently, with consensus scores derived in cases of disagreement.

2.5. Data analysis

For each family, we rated one session from the first half (median session 4) and one session from the second half (median session 8) of treatment, with a mean rating on each SOFTA-O subscale calculated across the two sessions. If two parents attended a session, their ratings were averaged to compose a single parental rating. Of note, adolescent and parent Engagement in the Therapeutic Process scores were negatively skewed. To transform these distributions, we used the square function. Before applying the square, we added 3 (i.e., the maximum possible score) to each score, to ensure that all values were non-negative. The final skewness statistics for the square-transformed distributions ranged from −0.76 to −1.60. The other alliance subscales had normal distributions.

In preliminary analyses, we examined whether the SOFTA-O subscales were correlated with each other within adolescents and within parents, using Pearson correlations. We compared raw SOFTA-O scores between adolescents and parents using within-group two-tailed t-tests. Next, we computed Pearson correlations between alliance ratings and CDRS-R scores at baseline and at 18 weeks, and CDRS-R change scores (score at 18 weeks minus score at baseline). A more negative CDRS-R change score corresponded to greater improvement in depression symptoms. Finally, using multiple regression analyses, we examined whether the relationship between parent/adolescent alliance ratings and CDRS scores differed for male and female adolescents.

3. Results

3.1. Sample characteristics

Participants were 17 adolescents from a sample of 22 in the demonstration trial, and their 22 parents. Five of 22 families did not attend at least two video-recorded FFT sessions: 3 of these families terminated the study early, and 2 had session tapes that were inaudible. Of the 17 adolescents, 16 completed baseline and post-treatment CDRS-R assessments with an independent evaluator.

Adolescents were on average 14.9 years old (SD = 2.0) and 41.2% (n = 7) were female. There were 12 (70.6%) with a primary diagnosis of major depressive disorder, 1 (5.8%) with bipolar II disorder, 2 (11.8%) with other specified bipolar disorder, and 2 (11.8%) with attention deficit hyperactivity disorder and other specified depressive disorder. The majority were White (n = 11, 64.7%); 5 (29.4%) were multiracial and 1 (5.8%) was African-American. Three of the 17 adolescents (17.6%) were of Hispanic ethnicity.

3.2. Adolescent, parent, and family unit alliance scores

Adolescents' alliance ratings for the subscales of Engagement in the Therapeutic Process, Emotional Connection to the Therapist, and Safety in the Therapeutic System were positively correlated (rs ranging from 0.54 to 0.76, ps < 0.05; N = 17). For parents, no significant correlations emerged between any of the alliance subscales. Table 1 compares the adolescent and parent SOFTA alliance ratings for the first half of treatment (time 1), the second half of treatment (time 2), and averaged across the two time points. Adolescent and parent alliance scores did not significantly correlate with each other at either time 1 or time 2. However, average adolescent Engagement scores were significantly correlated with average parent Engagement scores (r(15) = 0.49, p = 0.048; N = 17). Parental alliance ratings were significantly higher than adolescent alliance ratings for Engagement in the Therapeutic Process and Emotional Connection to Therapist at time 1 and time 2 (Table 1). There were no differences between adolescent and parental alliance ratings for Safety in the Therapeutic System at either time point.

3.3. Therapeutic alliance ratings and depressive symptom outcomes

Adolescents who were rated as being more engaged with therapy at time 1 and on average between time 1 and time 2 had higher baseline depression (CDRS-R) scores than adolescents who were rated as being less engaged (r(15) = 0.50, p = 0.040; N = 17, Table 2). Higher engagement ratings among adolescents at time 2 and on average were significantly related to improvements in CDRS-R scores from baseline to 18 weeks (r(14) = −0.63, p = 0.009; r(14) = −0.58, p = 0.018; N = 16, Table 2). Adolescent ratings for Emotional Connection to the Therapist and Safety in the Therapeutic System were not significantly correlated with baseline CDRS-R scores, 18 week CDRS-R or changes in CDRS-R scores over 18 weeks.

Parents' Emotional Connection to Therapist scores at time 1 were higher when adolescents began FFT with lower CDRS-R scores (r(15) = −0.50, p = 0.043; N = 17, Table 2). Parents' Engagement and Safety within the Therapeutic System scores were unrelated to adolescents'

baseline levels of depression (Table 2). However, higher parental average Engagement in the Therapeutic Process scores were non-significantly associated with greater improvement in adolescents' CDRS-R scores ($r(14) = -0.43$, $p = 0.094$; $N = 16$, Table 2). Finally, families' Shared Sense of Purpose ratings were uncorrelated with baseline CDRS scores or changes in CDRS-R scores over 18 weeks. There were no interactions between parent or adolescent alliance ratings and adolescents' sex on changes in CDRS-R scores.

4. Discussion

Although based on a small sample, this study is the first to examine the relationship between therapeutic alliance in family therapy and clinical improvement among adolescents with or at risk for mood disorders. Results suggest that parents had stronger therapeutic alliances with therapists than their adolescent offspring. Adolescents' engagement scores and, to a lesser extent, parents' engagement scores were associated with improvements in adolescents' depression symptoms from pre- to post-treatment. Alliance sub-scores correlated with each other for adolescents but not for parents, suggesting greater variability in alliance among adolescents in this study. Family Shared Sense of Purpose ratings were not associated with improved depression symptoms among adolescents.

Higher levels of therapeutic alliance throughout treatment in parents compared to adolescents is consistent with previous research on family therapy in anorexia nervosa (Isserlin and Couturier, 2012). Parents are usually the initiators of family treatment, often in response to their adolescent's psychosocial impairment. Raters observed more emotional connection between parents and clinicians when adolescents began treatment with lower levels of depression. Emotional connection is implied when parents joke with or express interest in the clinician or show trust in the clinician's expertise. This connection may be facilitated when the offspring is in a less precarious mood state, although adolescents in this state may not see the need for treatment.

Conversely, adolescents in this study who had higher baseline depression scores had higher scores on therapeutic engagement, suggesting that adolescents may be more motivated to invest in the therapeutic process when in distress. The therapeutic relationship may be strengthened as the adolescent begins to experience symptomatic relief, as was observed in a study of therapeutic alliance and clinical outcome among adults with bipolar disorder undergoing individual therapy (Strauss and Johnson, 2006).

Our findings underline the importance for family clinicians of developing a strong connection with adolescent patients. A stronger bond may help the adolescent feel safe to explore triggers for depression with his/her parents present. Adolescents may then be more willing to practice skills such as active listening or problem-solving with their family members.

The present study was conceptualized as a pilot demonstration study. Its small sample size may have limited power to detect significant associations, such as between the Shared Sense of Purpose measure and changes in depression. Variables that may limit the extent to which adolescents can engage in treatment, such as the presence or absence of a co-morbid

attention deficit disorder, could not be examined. Further, we were not able to examine the temporal relationship between changes in therapeutic alliance over the course of treatment and changes in adolescents' symptom status. Larger-scale trials examining the relations between therapeutic alliance and depression at multiple time-points would strengthen the conclusions of this study.

FFT is associated with longer well intervals before mood episodes and lower levels of suicidal ideation and behavior in youth at high risk for mood disorders (Miklowitz et al., 2020a). The present study suggests that a strong alliance between high-risk adolescents and family clinicians may facilitate improvement in depression over a brief treatment interval. Strategies to increase adolescent engagement may enhance the clinical benefits of FFT and other family-based interventions.

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Declaration of Competing Interest

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Table 1

Raw Alliance Ratings for Adolescent, Parents, and Family Unit ($N = 17$).

	Adolescents	Parents	Paired Sample *t*-statistic
Engagement in the Therapeutic Process			
T1, mean (SD)	1.71 (1.45)	2.79 (0.50)	2.93*
T2, mean (SD)	1.65 (1.73)	2.79 (0.53)	3.20**
Average, mean (SD)	1.68 (1.49)	2.79 (0.35)	3.02**
Emotional Connection to the Therapist			
T1, mean (SD)	0.53 (0.94)	1.59 (0.99)	3.46**
T2, mean (SD)	0.47 (0.94)	1.47 (1.24)	2.89*
Average, mean (SD)	0.50 (0.77)	1.53 (0.78)	3.87***
Safety in the Therapeutic System			
T1, mean (SD)	0.88 (1.36)	1.26 (0.97)	1.12
T2, mean (SD)	1.18 (1.13)	1.41 (0.87)	0.75
Average, mean (SD)	1.03 (1.12)	1.34 (0.66)	0.98
Shared Sense of Purpose in the Family			
T1, mean (SD)	0.76 (1.50)		
T2, mean (SD)	0.76 (1.37)		
Average, mean (SD)	0.76 (1.31)		

Note: subscale scores can range from −3 (extremely problematic alliance) to 3 (extremely strong alliance). The mean for Shared Sense of Purpose, which represents the family's collaboration and unity towards therapy goals, suggests that families on average rated between 0 (neutral alliance) and 1 (somewhat strong alliance).

* indicates $p < 0.05$.

** indicates $p < 0.01$.

*** indicates $p < 0.001$.

Table 2

Pearson Correlations Between Therapeutic Alliance Ratings and Change in CDRS Scores[1] from Baseline to 18 Weeks.

	Adolescents' Depression Scores		
	Baseline (*N* = 17)	**Treatment Endpoint (*N* = 16)**	**Change Score (Endpoint – Baseline) (*N* = 16)**
Alliance Scores			
Engagement (Adolescent)[2]			
Time-point 1	0.50*	0.03	−0.44
Time-point 2	0.45	−0.32	−0.63**
Average	0.50*	−0.17	−0.58*
Emotional Connection (Adolescent)			
Time-point 1	0.22	0.12	−0.10
Time-point 2	0.23	−0.09	−0.26
Average	0.28	0.02	−0.22
Safety (Adolescent)			
Time-point 1	0.39	0.02	−0.32
Time-point 2	0.45	0.21	−0.23
Average	0.46	0.12	−0.32
Engagement (Parent)[2]			
Time-point 1	0.23	0.05	−0.16
Time-point 2	0.14	−0.40	−0.42
Average	0.28	−0.27	−0.43
Emotional Connection (Parent)			
Time-point 1	−0.50*	−0.14	0.44
Time-point 2	0.01	−0.46	−0.40
Average	−0.31	−0.44	−0.05
Safety (Parent)			
Time-point 1	−0.02	−0.05	0.01
Time-point 2	−0.36	0.13	0.39
Average	−0.25	0.04	0.24
Shared Sense of Purpose (Family)			
Time-point 1	−0.05	0.15	0.08
Time-point 2	−0.20	0.10	0.23
Average	−0.14	0.15	0.18

[1] Change in CDRS-R score is calculated as the post-treatment score minus the pre-treatment score. Thus, more negative values correspond to greater reductions in depression symptoms.

[2] Adolescent and parent Engagement in the Therapeutic Process raw scores were negatively skewed and transformed using the square function.

* Indicates $p < 0.05$,

** indicates $p < 0.01$.