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RESEARCH ARTICLE

Parent-Therapist Alliance in Family-Based Treatment for Adolescents with Anorexia Nervosa

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Abstract

Objective: This study aimed to describe the role of parent alliance in Family-Based Treatment (FBT) for adolescents with anorexia nervosa (AN). Differences between parent and child alliance with the therapist, mothers' and fathers' alliance, and their relationship to outcome were examined.

Method: Independent observers rated audiotapes of early therapy sessions to assess the therapeutic alliance of parents and adolescents with AN in FBT. Outcome was defined using a previously established cut-point for recovery from AN.

Results: Mothers' and fathers' alliance scores with the therapist were similar and significantly higher than adolescent alliance scores early in treatment. Combined parent alliance did not predict recovery at the end of treatment. Difference in alliance scores between mothers and fathers, and parents and their child also did not predict recovery at the end of treatment.

Conclusions: In FBT, parents developed a strong alliance with the therapist early in treatment. These scores were consistent with the focus in FBT on parental management of eating disorder symptoms, as was the fact that alliance between adolescents and therapists was lower. Although parental therapeutic alliance was likely important in FBT, its role in treatment response remains uncertain. Copyright © 2013 John Wiley & Sons, Ltd and Eating Disorders Association.

Keywords

Family-Based Treatment; anorexia nerovsa; therapeutic alliance; adolescents

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Anorexia nervosa (AN) is a disorder characterized by high levels of denial and minimization and is usually ego-syntonic; thus, the development of successful treatments has posed a challenge (Couturier & Lock, 2006). The recent emergence of evidence supporting Family-Based Treatment (FBT) for young patients with AN is encouraging, demonstrating low dropout rates and promising rates of recovery among participants when assessed at the end of treatment (EOT) and 1 year follow-up (Lock et al., 2010). Although the most recent randomized control trial (RCT) of FBT demonstrated significantly higher rates of recovery in FBT than among those being treated with an individual therapy, the percentage of those fully remitted (>95% Expected Body Weight (EBW) and eating disorder symptomology within 1 SD of community norms) was approximately 50% at EOT (Lock et al., 2010). Therefore, exploring individual variables as well as aspects of the treatment itself that predict improved outcomes is needed to inform future modifications to FBT to successfully treat those who do not recover using the standard approach.

Little is known about the specific therapeutic elements of FBT that are most tied to progress in treatment. From the beginning of treatment parents are asked to renourish their child, and therapists must accomplish multiple aims to help parents to be successful.

Therapists encourage parental alignment in the weight restoration process, mobilize sibling support, externalize AN to decrease criticism of the patient, while maintaining an agnostic stance about the cause of AN so that parents do not feel blamed. Accomplishing these tasks is proposed to be critical to disrupting the maintaining features of AN, and promoting weight gain early in treatment (Ellison et al., 2012). Successful acceptance of these tasks and goals by parents may rely on the development of a strong early therapeutic alliance. As demonstrated in studies of psychotherapy process, the strength of the therapeutic bond between patient and therapist is thought to facilitate collaboration on the more specific tasks and goals of treatment. Bordin developed a pantheoretical definition of the therapeutic alliance proposing that the therapeutic attachment between patient and therapist and agreement on tasks and goals of therapy would play a significant role in successful outcome, and that the development of this relationship may vary depending on treatment modality and clinical population (Bordin, 1979). While therapeutic alliance is established as an important variable across diverse populations and treatments, only recently has attention turned to its role in the context of adolescent eating disorders, and more specifically its role in FBT for AN (Ellison et al., 2012; Forsberg et al., 2012; Isserlin & Couturier, 2012; Pereira, Lock, & Oggins, 2006).

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Accomplishing a strong therapeutic alliance in the context of family treatments is likely more complex than working with a single patient, as therapists must balance a relationship with the identified patient, with individual family members and with the needs of the family as a whole. Recent studies of diverse clinical populations treated with some form of family therapy suggest differential impact of parent versus child alliance on outcome and treatment retention. For example, among adolescents treated with Multidimensional Family Therapy for cannabis abuse, parent alliance predicted treatment retention, whereas adolescent alliance predicted symptom improvement (Shelef, Diamond, Diamond, & Liddle, 2005). Further, some evidence suggests that when parent and child alliance is not positively correlated, treatment retention may decrease. This was the case in the context of Functional Systemic Family Therapy for adolescents with behavioural problems (Robbins, Turner, Alexander, & Perez, 2003). In another study examining Functional Family Therapy for adolescents with substance use disorders, a larger difference between parent alliance and adolescent alliance with the therapist resulted in higher dropout rates for Hispanic, but not Caucasian families (Flicker, Turner, Waldron, Brody, & Ozechowski, 2008). Other studies interested in understanding the impact of parent alliance demonstrate that a strong alliance is likely related to prevention of early termination (Garcia & Weisz, 2002) and less cancellations (Hawley & Weisz, 2005).

Studies of alliance in family therapy and in child psychotherapy more generally suggest it is a predictor of outcome among individuals with diverse diagnostic presentations (Karver, Handelsman, Fields & Bickman, 2006; Shirk, Karver & Brown, 2011), although its importance in facilitating recovery among adolescents with AN is less clear. AN is an ego-syntonic disease, and therefore, denial of illness commonly poses a challenge to even the most talented therapists in facilitating engagement in treatment. Regardless, studies that have examined therapeutic alliance in this population find that it is achievable with adolescent patients although significantly lower in FBT when compared with an individually based treatment (Adolescent-Focused Therapy; Forsberg et al., 2012). These findings are consistent with the model, as much energy in the early stage of FBT is directed towards parents to support the changes necessary for successful weight restoration. When parent alliance has been measured in FBT, it is consistently higher than adolescent alliance, regardless of when it is measured, or how (self-report vs observer-rated) (Isserlin & Couturier, 2012; Pereira et al., 2006). Further, mothers and fathers may perceive their relationship with their therapist differently as in one study where fathers rated themselves lower on the alliance (Ellison et al., 2012).

Findings related to the alliance-outcome relationship are much less clear. Evidence to date suggests that early adolescent alliance scores are not predictive of recovery in adolescents with AN in either individual or family treatment (Forsberg et al., 2012). When examining the impact of alliance on weight gain and psychological change separately, results are mixed. One study found that adolescent alliance measured between 1 and 2 months into treatment was not predictive of weight gain or decreased eating disorder psychopathology at EOT (Pereira et al., 2006). When measured as early as sessions 2 and 3 in treatment, authors of another paper report that adolescents' engagement in the therapeutic process (a component of overall alliance) led to greater

decrease in symptomology by EOT as measured by the Eating Disorder Examination (EDE) but had no impact on weight remission (Isserlin & Couturier, 2012). When measuring parent alliance, studies demonstrate a link between strong parent alliance and treatment retention. For example, parents' engagement in the therapeutic process by mid-treatment was linked to greater treatment retention in one study (Isserlin & Couturier, 2012), and mothers rating a stronger alliance with their therapist were less likely to drop out of treatment in another (Ellison et al., 2012). Parent alliance also may impact treatment outcome, although again results are mixed. When looking at amount of weight gained, parent therapeutic alliance (combined mother and father scores, or individual scores) was not predictive (Ellison et al., 2012), nor was a shared sense of purpose within families (parents and adolescent) being treated with FBT (Isserlin & Couturier, 2012). However, when employing a categorical outcome (partial remission, or weight >85% EBW), stronger parent alliance in session 2 (the family meal) increased the likelihood of adolescents meeting this weight threshold (Isserlin & Couturier, 2012). Differences between these studies in how parent alliance is defined and measured (observer vs self-report; alliance between therapist and individual family members vs shared sense of purpose within the family system) and the varying definitions of outcome employed contribute to inconclusive results.

The aim of this study was to describe the role of early parent alliance in producing a clinically meaningful outcome for adolescents treated with FBT for AN. The therapeutic alliance between parents and therapists, and adolescents and therapists was rated early in treatment as a part of an RCT using manualized FBT. Observer ratings of the alliance were taken from audiotaped sessions using Bordin's pantheoretical definition of the concept, which is captured by the Working Alliance Inventory [WAI; (Bordin, 1979; Horvath & Greenberg, 1989)]. Secondary aims were to test differences between mothers' and fathers', and parents' and adolescents' alliance scores, and whether these differences were predictive of outcome. Given the proposed importance of parents' successful implementation of skills learned in FBT from session 1, we predicted that a strong early therapeutic alliance between parents and therapists would increase the likelihood of full remission at EOT. Further, we predicted that mothers' and fathers' alliance scores would be significantly higher than their children's and that there would be no differences between mothers' and fathers' scores. We expected that greater differences between parent and child alliance scores would result in decreased likelihood of achieving recovery at the EOT.

Method

This study was approved by IRB at both universities (Chicago and Stanford) where participants were enrolled.

Participants

Participants in the current study came from a multi-site RCT (N=121) for adolescents with AN (Lock et al., 2010). To be eligible for the original RCT, participants met criteria for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition AN except for the requirement of amenorrhea. Individuals were excluded if they had co-morbid diagnoses of psychosis, drug or alcohol dependence, were acutely suicidal or were medically

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unstable according to published criteria. Participants were randomly assigned to either FBT or Adolescent-Focused Therapy. Sixty-one individuals were randomized to FBT.

To examine the relationship between therapeutic alliance measured early in FBT and outcome, we restricted our sample of tapes to those who had audible recordings of therapy at sessions 3, 4 or 5 (N=41), as early alliance has consistently been linked to outcome (Horvath & Bedi, 2002). Of these individuals, three were missing outcome data and thus were excluded. Our final therapeutic alliance participant sample (N=38) were average age of 14 years (SD = 1.54) and 87% female; 76.3% were White, 13.2% were Asian, 5.3% were Hispanic and 5.3% were Biracial. The majority came from intact families (87%), and 36 mothers and 25 fathers were included in the analyses (23 were mother and father pairs, leaving 13 sessions with mothers only and 2 sessions with fathers only that were rated). Mean duration of AN prior to initiating treatment was 11.5 months (SD = 7.6), and 11% of participants had a co-morbid psychiatric diagnosis. At time of BL assessment, the average % EBW of the sample was 81.4% (SD = 3.4%) and the mean global EDE score was 1.26 (SD = 1.07).

We compared the alliance sample (N=38) with those remaining in the original sample but were excluded because of missing tapes or outcome data (N=23). Independent samples t-tests were conducted to test for potential differences between these groups. They were compared on the following variables: BL % EBW, BL EDE scores, duration of illness, age and total therapy minutes. Categorical demographic variables (gender and ethnicity) and psychiatric co-morbidity were examined using the chi-square test, as was dropout status.

On the basis of these analyses, participants in the alliance sample did not differ from the original sample on any measures examined, except for number of therapy minutes, with those excluded from our sample having significantly less time in treatment (p < .001), and dropout status, with there being a significantly higher dropout rate in the excluded group (p < .001).

Treatment

Family-Based Treatment

The form of family therapy used in this study was manualized FBT. In FBT, the focus is on parental management of maintaining behaviours of AN (severe caloric restriction, excessive exercise and purging behaviours) that perpetuate extreme low weight. FBT has three stages (Lock, Le Grange, Agras, & Dare, 2001). In the first stage, parents are charged with the task of helping their child restore weight. During the second phase, control over eating is gradually returned to the adolescent by the parents. Phase three shifts away from food and eating to target developmental issues around adolescence as well as relapse prevention and termination.

Measures

Working Alliance Inventory

The WAI was first developed by Horvath and Greenberg (1989) and was transformed into an observer-version by Tichenor and Hill (1989) (Horvath & Greenberg, 1989; Tichenor & Hill, 1989). Each component of the alliance (agreement on tasks, agreement on goals and affective bond) is represented by 12-items, which can be

examined at the subscale level or can be combined to provide a total alliance score. Items are rated on a Likert scale ranging from 1 (never, or no agreement/indication of agreement on tasks and goals/affective bond) to 7 (always, or full agreement on tasks and goals/strong affective bond). The WAI is one of the most frequently used instruments in the therapeutic alliance literature and has been shown to have good internal validity, test–retest reliability and interrater reliability (IRR) (Horvath & Bedi, 2002).

Eating Disorder Examination

The EDE (version 12.0) is a structured clinical interview assessing for varying levels of eating disorder pathology (Fairburn & Cooper, 1993). Change in restraint over eating early in treatment was assessed during sessions 1,2, 4, 6 and 8 by using a single question from the EDE.

Weight

Heights and gowned weights for participants were obtained at BL, weekly (in street clothes) at each treatment session thereafter and at EOT. Expected Body Weight was calculated for each participant on the basis of sex, age and height by using Centers for Disease Control and Prevention growth charts (http://www.cdc.gov/growthcharts/percentile_data_files.htm) and was used as a measure of outcome.

Rater training

Two graduate-level clinical psychology students, who were otherwise not involved in the original RCT, conducted therapeutic alliance ratings of all available participants. Raters were trained to use the WAI observer version (WAI-o) (Tichenor & Hill, 1989). Tapes were assigned to each rater using a random numbers table, to increase variability of treatment condition, site and therapist, within each rater. Each rater also rated 10 of the same tapes to examine IRR. Ratings were coded for interactions between the therapist and identified patient, and therapist and parents. Raters used a benchmark of '4' (no evidence for/equal evidence for and against), rating up or down as information was collected. If a tape was inaudible, or session 4 was missing, raters attempted to rate the next closest audible session (either session 3 or 5). Session 3 was selected first, as studies suggest that alliance measured early in treatment is typically a better predictor of outcome, and when session 3 was unavailable, session 5 was rated instead (Horvath & Bedi, 2002). If all of these sessions were either inaudible or unavailable, the individual participant was excluded from the study. IRR was calculated as r = .88 using Spearman's correlations after randomordering ratings to account for absolute level of rater agreement.

Data analysis

In the original RCT, the primary outcome of full remission was defined *a priori* as those individuals meeting a minimum of the 95th percentile of mean body weight for age, height and gender using Center for Disease Control norms and achieving a score on the EDE within 1 SD of globally published norms (M=1.59). For the purposes of our analyses, significance values used throughout the study were set at .05, and all tests were two-tailed. Data were checked for normal distribution, and non-parametric tests were used when samples were not normally distributed. Area under the receiver operating characteristic curve

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 $(AUC = U(/N1 \times N2))$ was calculated for each predictor variable and was taken as a measure of effect size.

To examine whether parent therapeutic alliance, difference between mothers' and fathers' alliance scores, and difference between adolescent and parent scores were predictors of full remission status (as defined above), we conducted three separate binary logistic regressions. The categorical dependent variable was full remission status at EOT (coded 1 = yes, 0 = no). We controlled for those individuals meeting full remission for weight ($\geq 95\%$ EBW) at the alliance session in the respective analyses, entering early full remission status (coded 1 = yes, 0 = no) at Step 1. A centred mean therapeutic alliance score was entered as a predictor at Step 2. For the analyses looking at difference between mothers' and fathers' alliance scores, and parent and adolescent alliance scores, the absolute value of a calculated difference score was entered as the predictor at Step 2.

Results

Alliance scores

We compared mean alliance scores (Total, Tasks, Goals and Bond scores) between parents (mothers and fathers), and mothers and fathers, and their child by using paired samples *t*-tests. Mothers' and fathers' alliance scores were significantly higher than adolescent scores, and there were no significant differences between mothers' and fathers' alliance scores (Tables 1 and 2).

By using Cohen's standards to measure effect size, the differences between mothers' and adolescent Total alliance scores (d=.95), and fathers' and adolescent Total alliance scores was large (d=1.26). Mothers' and fathers' alliance scores were averaged to create a Total parent score, which was entered into the predictor analyses. Further, as parent and adolescent scores on alliance subscales (Tasks, Goals and Bond) demonstrated strong and significant correlations, Total alliance scores were used in outcome analyses.

Recovery

At the session alliance measured, a total of 9 (23.7% of the sample) met recovery criteria for weight (≥95% EBW). At EOT, 14 (36.8%) participants met full recovery criteria (weight ≥95% EBW and EDE scores within 1SD of community norms). Results of the regression demonstrate that as expected, early recovery was predictive of recovery at EOT. After controlling for early recovery in the logistic regression, parent alliance was not predictive of outcome. The average difference between mothers' and fathers' alliance scores (M = .22, SD = .26) was not significant (t = 1.17, p = .26); however, as noted previously, the average difference between overall parent alliance (combined mothers' and fathers' scores) and adolescent scores (M = 1.14; SD = 1.16) was significant (t = 6.03, p < .001). The difference between mothers' and fathers' alliance scores did not predict recovery, nor did the difference between parent and adolescent scores (Table 3).

 Table 1 Descriptive statistics and t-test results for mother and adolescent alliance scores

Working alliance	Adolescents		Mothers					
scores	M	SD	M	SD	n	95% CI	t	df
Total	4.19	.97	5.35	1.22	36	.77, 1.56	5.93***	35
Tasks	3.84	1.09	5.28	1.30	36	.97, 1.92	6.13***	35
Goals	3.88	.98	5.33	1.33	36	.99, 1.91	6.43***	35
Bond	4.85	1.00	5.44	1.09	36	.29, .89	4.02***	35

CI = confidence interval; df = degrees freedom.

Table 2 Descriptive statistics and *t*-test results for father and adolescent alliance scores

Working alliance	Adolescents		Fathers					
scores	M	SD	M	SD	n	95% CI	t	df
Total	4.20	1.02	5.64	1.06	25	.94, 1.93	5.90***	24
Tasks	3.84	1.19	5.66	1.07	25	1.26, 2.40	6.58***	24
Goals	3.90	1.04	5.68	1.18	25	1.21, 2.34	6.49***	24
Bond	4.88	.95	5.58	.97	25	.29, 1.10	3.57**	24

CI = confidence interval; df = degrees freedom.

^{*}*p* < .05. ***p* < .01.

^{***}p < .001.

^{*}p < .05.

^{**}p < .01.

^{***}p < .001.

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Table 3 Logistic regressions for treatment outcome measures

Predictors of recovery	OR	95% CI	df	p	AUC
Parent alliance					
Constant	1.07		1	.89	
Early recovery	15.82	[2.39, 106.01]	1	.004**	
Parent alliance: total score	.56	[.29, 1.08]	1	.08	.62
Mother-father difference					
Constant	.45		1	.18	
Alliance: difference	2.06	[.07, 54.73]	1	.67	.55
Parent-child difference					
Constant	3.00		1	.15	
Early recovery	13.86	[1.88, 102.41]	1	.01*	
Alliance: difference	.44	[.18, 1.08]	1	.07	.65

OR = Odds Ratio; CI = Confidence Interval; df = degrees freedom; AUC = area under the receiver operating characteristic curve; recovery \geq 95% Expected Body Weight and Eating Disorder Examination scores within 1 SD of community norms; early recovery \geq 95% Expected Body Weight; mother–father difference = difference in alliance scores; parent–child difference = difference in alliance scores; ns = non-significant.

Discussion

Findings from this study suggest that parent alliance with the therapist in FBT is generally strong and that their scores, as predicted, are higher than adolescent alliance with the therapist. Despite findings from one previous study that mothers and fathers may report their alliance scores differently, when independent observers rated alliance in our sample, their scores were equally high (Ellison et al., 2012). Although alliance is achievable with parents in this treatment model and may help facilitate implementation of tasks of early sessions, it does not appear to improve recovery rates at EOT.

There are important limitations to the study that need to be considered when interpreting these findings. These data were drawn from an RCT designed to test differences in remission rates between two active treatments, and the initial trial was not powered to address the question of alliance and outcome. Thus, although findings did not reach statistical significance, moderate effect sizes suggest parent alliance may have clinical significance in FBT that warrants further exploration. Our sample was also limited to those participants who had early alliance session tapes, and a potential consequence was that the majority in our sample were treatment completers. This could have biased the sample towards parents who had better treatment alliance because they completed treatment. We were also unable to conduct an analysis on the relationship of alliance to dropout because our sample had only three dropouts. In addition, examining the alliance over the full course of treatment would have been helpful, but we were unable to conduct this analysis with our limited resources. We were also not able to assess the relationship between the alliance and symptom change prior to sessions 3, 4 or 5 or later in therapy. We controlled for symptom change prior to the alliance session to prevent symptom improvement

from confounding the alliance-outcome relationship (Feeley, DeRubeis, & Gelfand, 1999). However, in the event that a strong initial alliance predicts early recovery, controlling for this variable diminishes our ability to examine the true impact of the alliance on later change. Previous studies of non-eating disorder populations highlight the complexity of determining the directionality of the alliance-symptom change relationship finding both that alliance precedes symptom improvement and vice versa (Feeley et al., 1999; Klein et al., 2003). Given we did not measure session by session alliance, we took the recommended and most conservative approach by controlling for our outcome variable prior to measurement of the alliance. Mediational models are thought to best address mechanisms of change and may be of use in future studies examining process variables like the therapeutic alliance as measured over time (Kraemer, Wilson, Fairburn, & Agras, 2002).

A strength of this sample is that it was drawn from the largest outpatient RCT for adolescents with AN published to date and examines the alliance in FBT, a treatment that is efficacious for adolescents with AN. Our sample appeared to be representative of the original group on all counts, with the exception of being less likely to drop out and have longer time in treatment than the non-alliance sample. Therapeutic alliance was assessed independently by raters who were blind to treatment outcome at the time of rating using an instrument that was designed for use across a range of treatments and is well validated and commonly used. We also employed a definition of outcome that has clinical relevance and expands on previous studies that have examined weight change, or lower weight thresholds as primary outcome measures. These results are similar to recent findings suggesting that parent alliance is not predictive of outcome in FBT, regardless of whether alliance is rated by parents themselves or independent observers (Ellison et al., 2012; Isserlin & Couturier, 2012; Pereira et al., 2006). This study expands on the discussion of how best to measure alliance in the only evidence-based treatment for adolescent AN and therefore establishes a framework from which future studies can be designed to carefully assess the allianceoutcome relationship.

In FBT, therapists strive to empower parents to manage the behaviours that maintain AN and to promote weight restoration in their malnourished child early in therapy. As expected, parents in this treatment developed a therapeutic bond with the therapist and were in agreement on tasks and goals of the model. It is likely that core techniques of this model, such as externalization of illness, parental alignment and disruption of parental criticism, contribute to enhanced parental alliance, despite the many challenges parents may face in the weight restoration process. Further, parents are able to develop a strong early relationship with the therapist even when their children's alliance with the therapist is not as strong as their own. Differences in parent and child alliance are not surprising, given features of adolescent AN like denial of illness, and highlight the importance of empowering parents in treatment even when their adolescent is unable to agree on the tasks and goals of therapy. Future studies might measure

^{*}p < .05.

^{**}p < .01.

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shared sense of purpose, or the alliance between family members to clarify the impact of lack of cohesion within the family on treatment outcome (Friedlander et al., 2006). Use of measures that capture the alliance between family members and the therapist, and within the family will allow for further understanding of the subtleties of the role of alliance in FBT.

Ongoing research examining the relationship of therapeutic alliance to outcome in FBT should examine the trajectory of alliance, symptom change and their interaction across early sessions in treatment to better understand whether the alliance contributes more specifically to the success or failure of the approach.

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