

## BRIEF REPORT

# Exploring Actor–Partner Interdependence in Family Therapy: Whose View (Parent or Adolescent) Best Predicts Treatment Progress?

Myrna L. Friedlander  
University at Albany/State University of New York

Dennis M. Kivlighan Jr.  
University of Maryland

Katharine S. Shaffer  
University at Albany/State University of New York

Predictions of family therapy outcome consistently vary depending on which client rates the alliance. We used the actor–partner interdependence model (Kenny, Kashy, & Cook, 2006) to test the interdependence of parents' and adolescents' ratings of alliance, session depth/value, and improvement-so-far after Sessions 3, 6, and 9. Initial analyses found trivial between-therapists variance; therefore, a 3-level hierarchical model partitioned the variance in these variables into between families, between family members, and between session components. For alliance and session depth, results showed a significant parent actor effect and a significant adolescent partner effect. Specifically, when parents saw a stronger alliance, they also saw the session as more valuable, but when adolescents saw a stronger alliance, their parents saw the session as less valuable. Both the parents' and the adolescents' improvement scores showed significant linear growth over time, and adolescents' alliance ratings were positively associated with their own and their parents' views of therapeutic progress.

*Keywords:* therapeutic alliance, working alliance, family therapy, actor–partner interdependence

Alliance development and maintenance in family therapy are uniquely challenging because of the complexity of interactions among multiple clients who have a history together; who are at different developmental levels; and who often disagree about the purpose, goals, and value of therapy (Friedlander, Escudero, & Heatherington, 2006). Contrary to what might reasonably be assumed—that parents align with the therapist more so than do adolescents—recent studies in the United States and Spain (Muñiz de la Peña, Friedlander, & Escudero, 2009) found the reverse pattern occurring just as frequently; that is, many adolescents reported a stronger bond with the therapist than did their parents.

Systemic influences on the therapist's ability to negotiate and sustain working alliances with multiple clients simultaneously cannot be overemphasized. In session, each individual forms a separate alliance with the therapist, observes the therapist's alli-

ance with other members of the family, and contributes to a group-level alliance (Pinsof, 1994; Pinsof & Catherall, 1986; Rait, 2000). If the therapist seems to favor one person, other family members may become disillusioned or feel threatened. Although some parents may be delighted to discover that their teenager likes the therapist, other parents may drop out if they think the therapist is minimizing their worries or complaints.

No doubt each client's personality and character defenses play a role in his or her personal relation to the therapist, but whether or how family members collaborate in therapy is arguably more a function of preexisting family relationships (Friedlander et al., 2006; Lambert, Skinner, & Friedlander, in press; Symonds & Horvath, 2004). Adolescents whose parents are unpredictable, neglectful, or self-absorbed are predisposed to be wary around therapists. Parents who see themselves as failures are likely to fear being judged by the therapist.

Moreover, each client's involvement in the therapy can vary widely within a session depending on how others are behaving. In a recent task analytic study (Higham, Friedlander, Escudero, & Diamond, in press), for example, highly resistant teens whose parents supported them verbally became observably more engaged in the therapeutic process as the session progressed than did teens whose parents were not explicitly supportive. Likewise, Diamond and Liddle (1996) found that delinquent teens became more engaged and cooperative in treatment when their parents stopped trying to control them and began trying to understand them.

The complexity of the clinical process is mirrored in the complexity of research on conjoint therapy. A recent meta-analysis

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Myrna L. Friedlander and Katharine S. Shaffer, Department of Educational and Counseling Psychology, University at Albany/State University of New York; Dennis M. Kivlighan Jr., Department of Counseling and Personnel Services, University of Maryland.

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Correspondence concerning this article should be addressed to Myrna L. Friedlander, Department of Educational and Counseling Psychology, Education 221, University at Albany/State University of New York, 1400 Washington Avenue, Albany, NY 12222. E-mail: mfriedlander@uamail.albany.edu

(Friedlander, Escudero, Heatherington, & Diamond, 2011) concluded that predictions of treatment retention, client improvement, and outcome vary depending on which family member is reporting on the working alliance. In Shelef, Diamond, Diamond, and Liddle's (2005) study, for example, adolescents' alliance scores predicted posttreatment outcomes, whereas parents' scores did not. In a comparison of families with good versus poor outcomes (Bennun, 1989), mothers' and fathers' views of the therapist differed more in the least successful cases. In an investigation of family management for schizophrenia, the patient's reoccurrence of symptoms was only predicted by other family members' alliances, not by the patient's personal alliance with the therapist (Smerud & Rosenfarb, 2008). Studies with adolescents have frequently shown that the best predictor of treatment success is neither the parent's nor the teen's self-report considered in isolation but rather is two family members' ratings considered jointly. Robbins, Turner, Alexander, and Perez (2003), for example, found that in functional family therapy, unbalanced alliances were a risk factor for dropout; this finding was later replicated in a study of multidimensional family therapy (Robbins et al., 2008).

To date, research on the alliance in conjoint therapy has been hampered by the use of statistical analyses that require independent observations. To avoid violating the assumption of independence, several authors have used composite alliance scores. However, composites have not been predictive of either retention or outcome (Friedlander et al., 2011), probably because averaging extreme scores masks important variability. Reasoning that a different methodology is needed to study the systemic interplay of alliances in family therapy, we explored the actor–partner interdependence model (APIM; Kenny, Kashy, & Cook, 2006), which addresses the nonindependence problem by testing “partner” as well as “actor” effects.

The APIM paradigm is preferred for studying social relationships because research that assumes reciprocal interaction without explicitly testing for it essentially disregards that which may be most potent, that is, partner effects (Cook & Kenny, 2005). Indeed, the mutual influence of actor and partner is essentially what family researchers seek to uncover. In the context of conjoint therapy, APIM can potentially allow us to study some clinically crucial questions: Do parents and adolescents tend to see the therapeutic process similarly? How do parents' views of the process affect adolescents' views, and vice versa? Whose view matters most when it comes to evaluating therapeutic progress?

In this study, we nested individuals within families in a multi-level model to investigate two actor effects: (a) the parent actor effect, which assessed how much a parent's evaluation of therapy was predicted by his or her own view of the alliance, and (b) the adolescent actor effect, which assessed how much an adolescent's evaluation of therapy was predicted by his or her own view of the alliance. Given the importance of alliance for outcome in family therapy (see Friedlander et al., 2011, for a meta-analytic review), we predicted that actors would see the therapy as proceeding well when they reported a more favorable alliance. We also investigated two partner effects: (a) the parent partner effect, that is, how much a parent's evaluation of therapy was predicted by his or her adolescent's view of the alliance, and (b) the adolescent partner effect, that is, how much an adolescent's evaluation was predicted by his or her parent's view of the alliance. On the basis of the systemic view of alliances in conjoint therapy (Friedlander et al.,

2006; Pinsof & Catherall, 1986; Rait, 2000), we hypothesized that either interdependence (which is in evidence when only one partner effect is statistically significant) or bidirectionality (interdependence when both partner effects are significant) would be observed. There was, however, no basis in theory or previous research to hypothesize direct or inverse associations between parents' and adolescents' views of the alliance and their evaluations of progress in treatment. Additionally, because APIM allows for longitudinal study at two or more points in time (Cook & Snyder, 2005), we assessed for linear change in parents' and adolescents' evaluations of the therapy.

Because alliance strength can fluctuate over the course of a session (e.g., Diamond & Liddle, 1996; Higham et al., in press), advancing our knowledge in this area requires studying the immediate rather than the long-term effects of family members' alliances. Indeed, even when a severely split alliance (Pinsof, 1994; Pinsof & Catherall, 1986) is present early in family therapy, dropout is not inevitable (Muñiz de la Peña et al., 2009). For this reason, we investigated parents' and adolescents' views of the alliance on two proximal outcomes: (a) evaluation of session depth or value, and (b) ratings of improvement-so-far. Self-reported improvement is a meaningful proximal outcome, and the relationship between session depth and posttreatment outcome has been well established (see Stiles, Gordon, & Lani, 2002, for a review).

We located no published APIM research on family therapy. However, APIM has been used to study therapist–client interdependence in individual psychotherapy (Kivlighan, 2007) and partner interdependence in couple therapy (Anderson & Johnson, 2010; Anker, Owen, Duncan, & Sparks, 2010; Cook & Snyder, 2005). In a recent investigation of couple therapy, Anker et al. (2010) reported both actor and partner effects of the working alliance on outcome, but only when the alliance was assessed late in treatment. However, Anker et al.'s alliance measure did not assess the within-couple alliance, that is, agreement between partners on the goals and tasks of therapy. Anderson and Johnson (2010), on the other hand, did use such a measure; their results showed that the alliance between partners predicted early improvement more so than each partner's individual alliance with the therapist considered in isolation. One interesting finding illustrates the value of studying reciprocal influence in alliance development. Female partners' levels of distress increased when their male partners' alliance with the therapist increased, but these women's distress levels decreased when the within-couple alliance increased.

APIM requires that participants be distinguished by some meaningful variable, for example, an individual characteristic, such as gender (Kivlighan, 2007). In family therapy, the defining characteristic is family role: parent and child. This treatment modality is more difficult to study than couple therapy, not only because parent figures differ across families but also because it is common for different family members to attend therapy sessions at different times. Some families attend sessions only with the problem child, whereas other families bring everyone to therapy, or they bring some children some of the time. To illustrate, assessment of the therapy following Session 3 by a two-parent family that has attended all three sessions together is likely to differ from the Session 3 assessment by a family in which a step-parent's first appearance was in that session. The step-parent has had less time to experience the alliance, and other family members' alliance

scores are undoubtedly influenced by the step-parent's addition to the therapeutic system (cf. Beck, Friedlander, & Escudero, 2006).

Thus, because of the tremendous heterogeneity in family therapy cases, the study of reciprocal influence in this treatment modality is considerably more complex than it is in couple therapy. In applying APIM to conjoint family therapy, we anticipated that meaningful results would encourage researchers to use APIM in investigations of family therapy alliances and other process variables.

## Method

### Participants

**Clients.** The clients sampled for this study came from an archival data set of 29 families who received a maximum of 10 free therapy sessions at a nonprofit clinic located in a small northeastern city (Friedlander, Lambert, & Muñiz de la Peña, 2008). Families were prescreened, and only low-income families with one or more children who were considered to be *at risk* (as evidenced by issues such as substance abuse, persistent school absences, experiences with violence, etc.) were offered treatment. Exclusion criteria included suicidal or homicidal ideation, ongoing substance abuse (unless under the care of a physician), and severe domestic violence; families who were in acute crisis or who were mandated by family court were also excluded.

The 20 families in this study were all those in the data set with at least two family members who attended either Session 3, Session 6, or Session 9 and who completed the self-report measures after the session. Parent figures included 18 mothers, 10 fathers, seven step-parents/partners, and one grandmother; all adolescents were 11 years of age or older ( $M = 13.21$  years,  $SD = 1.58$ ). As a group, the families' presenting concerns included divorce or separation, death, abuse, and/or family conflict. Fifteen of the families completed the full 10 sessions of treatment. Of the remaining five families, two completed seven sessions, two completed four sessions, and one completed nine sessions.

**Therapists.** Of the 10 therapists who participated in the original study (mean age = 41.3 years,  $SD = 11.39$ ; mean experience = 6.8 years,  $SD = 11.39$ ), nine were represented in this sample, including six White women, one Latina, and two White men. All therapists held either a master's degree in social work or counseling or a doctoral degree in counseling psychology; two were graduate students in a counseling psychology program. The majority of therapists identified their orientation as family systems; other approaches were cognitive-behavioral, eclectic, and client-centered.

### Instruments

**Self-Report Version of the System for Observing Family Therapy Alliances (SOFTA-s).** The SOFTA-s (Friedlander et al., 2006; Friedlander, Escudero, Higham, & Haar, 2005) is a self-report measure used to assess the perceived strength of the working alliance in couple and family therapy. Clients who were 11 years of age and above completed the SOFTA-s immediately following Sessions 3, 6, and 9. The 16 items in the scale reflect four theoretical dimensions: Engagement in the Therapeutic Process (e.g., "What happens in therapy can solve our problems"),

Emotional Connection With the Therapist (e.g., "The therapist understands me"), Safety Within the Therapeutic System (e.g., "I feel comfortable and relaxed in the therapy sessions"), and Shared Sense of Purpose Within the Family (e.g., "Each of us in the family helps the others get what they want out of therapy"). Each item (four per subscale) is rated on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*). With some items reverse scored, the total score (used in the present data analysis) can range from 20 to 80.

Regarding reliability, Cronbach alpha for the total score has ranged from .82 to .87 in previous research, and SOFTA-s scores have been significantly associated with observational ratings of alliance-related behavior (Friedlander et al., 2006). In the larger sample from which these data were selected,  $\alpha = .82$ . Split alliances, determined from SOFTA-s scores, were largely consistent with observer ratings of the alliance (Muñiz de la Peña et al., 2009).

**Session Evaluation Questionnaire, Version 4 (SEQ).** The SEQ (Stiles & Snow, 1984) is a widely used self-report measure that assesses perceptions of the impact of a therapy session on two evaluation scales (Depth/Value and Smoothness) and two mood scales (Positivity and Arousal). The instrument consists of 24 bipolar adjective pairs—for example, *bad-good* and *relaxed-tense*—on seven-step semantic differentials; respondents indicate on the continuum how the session was (evaluation scales) and how they feel right now (mood scales). For this study, only the items on the Depth scale, administered after Sessions 3, 6, and 9, were used to assess clients' perceptions of session depth. After reverse scoring on appropriate items, the summed and averaged scale scores can range from 1 to 7, with higher scores indicating perceptions of a deeper or more influential session.

Stiles et al. (2002) reported Cronbach  $\alpha = .90$  as typical for scores on the Depth scale. Significant correlations have been shown between the SEQ and perceived alliance perceptions, satisfaction with therapy, perceived therapist characteristics, and session helpfulness (Stiles et al., 2002). In the original sample from which the present data were drawn, the Depth internal consistency reliability was  $\alpha = .85$ .

**Improvement-so-far.** One item from the Penn Helping Alliance Questionnaire (Luborsky et al., 1996) was rated by clients after Sessions 3, 6, and 9 to assess their perceptions of progress to date. The single-item statement "estimate of improvement so far" is rated on a 5-point scale in which 1 = *not at all*, 2 = *slight*, 3 = *moderate*, 4 = *much*, and 5 = *very much*. Although no psychometric data could be located for this measure, we reasoned that the validity of a single-item improvement measure would be evidenced if both parents' and adolescents' responses over time showed significant, positive linear growth. In the original study, significant correlations were found between improvement reported after Sessions 3 and 6, and Session 3 improvement ratings significantly predicted a reduction in posttreatment target complaint distress (Friedlander et al., 2008).

## Results

### Preliminary Analyses

One therapist saw six families, one therapist saw four families, one therapist saw three families, and one therapist saw two fami-

lies. Five therapists saw one family each. As noted in the Method section, these families had different structural configurations.

Across all family members and sessions, the mean SOFTA-s score was 57.37 ( $SD = 10.34$ ), the mean Depth score was 5.00 ( $SD = 1.24$ ), and the mean improvement rating was 2.82 ( $SD = 1.10$ ). These scores suggest that the average alliance was perceived as moderately strong (potential range = 20–80), the average session was seen as relatively deep (potential range = 1–7), and improvement-so-far was just short of moderate (potential range = 1–5).

We also examined whether the assumptions of the statistical analyses were met. All of the variables were normally distributed and did not have excessive skew or kurtosis. Three completely unconditional (empty), four-level hierarchical linear models (HLMs) were run to partition the variance in session depth, improvement-so-far, and self-reported alliance into between therapists, between families, between family members, and between sessions variance components. Families were nested within therapists, family members were nested within families, and sessions were nested within family members.

For session Depth, less than 0.01% of the variance was between therapists; this between-therapists variance component,  $\chi^2(8, N = 115) = 6.75, p > .50$ , was not significant, meaning that there was not significant variance in session depth between therapists. For improvement-so-far, less than 2% of the variance was between therapists; this between-therapists variance component,  $\chi^2(8, N = 115) = 9.98, p = .25$ , was not significant, meaning that there was not significant variance in session improvement-so-far between therapists. For self-reported alliance, less than 0.01% of the variance was between therapists; this between-therapists variance component,  $\chi^2(8, N = 115) = 3.70, p > .50$ , was not significant, meaning that there was not significant variance in self-reported alliance between therapists. Kenny, Kashy, and Bolger (1998) indicated that extremely small between-groups (therapists) intraclass correlation coefficients, such as those found above, can be ignored for nested data. Because modeling therapists when the between-therapists intraclass correlation coefficients are extremely small unnecessarily reduces statistical power, the between-therapists component was omitted from the APIM analyses.

Of the total 54 sessions (i.e., Sessions 3, 6, and 9 combined), five sessions had only one family member in attendance, 32 sessions had two family members in attendance, 11 sessions had three family members in attendance, five sessions had four family members in attendance, and one session had five family members in attendance. Because the five sessions with a single family member in attendance could not be used in the APIM analyses, they were dropped from the subsequent APIM analyses.

We created a Parent dummy variable; if a family member was a parent figure, the Parent dummy variable was coded 1; otherwise, this variable was coded 0. We also created an Adolescent dummy variable; if a family member was an adolescent, the Adolescent dummy variable was coded 1; otherwise, this variable was coded 0. We also created dummy variables for Parent and Adolescent slope terms.

### APIM Analyses

In using the APIM (Kenny et al., 2006), we tested (a) the effect of the parents' and adolescents' alliance perceptions on their own

session depth and improvement-so-far ratings (actor effects) and (b) the effect of the adolescents' and parents' alliance perceptions on one another's session depth and improvement ratings (partner effects).

The APIM analyses were conducted in two hierarchical steps, which are referred to as *models*. In this three-level conditional model, family members were nested within families, and sessions were nested within family members. Additional predictors of ratings of session depth and improvement were parent and adolescent session terms representing the change over time in parents' and adolescents' ratings of session depth and improvement (the zero value for these session variables were set at Session 3). These growth terms were included to control, if needed, for the effects of time in the models.

Model 1 is the growth model in which change in family member session depth (or improvement) scores, on a session-to-session basis, is modeled. The equations for Model 1 assessing the rate of change in family member session depth scores are as follows:

$$\text{Level 1: } y = \pi_1 \text{Parent Dummy} + \pi_2 \text{Adolescent Dummy}$$

$$+ \pi_3 \text{Parent Session} + \pi_4 \text{Adolescent Session} + e. \quad (1)$$

$$\text{Level 2: } \pi_1 = \beta_{10} + u_1,$$

$$\pi_2 = \beta_{20} + u_2,$$

$$\pi_3 = \beta_{30} + u_3,$$

$$\pi_4 = \beta_{40} + u_4.$$

It is important to note that this APIM does not have a common intercept. The session depth (or improvement-to-date) for a family member in a particular family at a specific session is  $y$ . The  $\pi_1$  coefficient is the intercept for the parent's rating of depth (or improvement-so-far), and the  $\pi_2$  coefficient is the intercept for the adolescent's rating of depth (or improvement-so-far). The  $\pi_3$  coefficient indexes the linear rate of growth in depth (or improvement-so-far) across sessions if the family member is a parent, and the  $\pi_4$  coefficient indexes the linear rate of growth in depth (or improvement-so-far) across sessions if the family member is an adolescent. The  $e$  coefficient is the session level error term.

In an HLM, the Level 1 parameters are the criterion variables in Level 2 of the model. Two Level 2 equations are related to the parent and adolescent intercepts coefficients at Level 1, and two Level 2 equations relate to the parent and adolescent slope coefficients in the Level 1 model. The parent intercept,  $\pi_1$ , is a function of the grand mean of all parents' predicted session depth or improvement scores at Time 0 (Session 3),  $\beta_{10}$ , plus each parent's intercept's deviation from the grand mean,  $r_1$ . The adolescent intercept,  $\pi_2$ , is a function of the grand mean of all adolescents' predicted session depth or improvement scores at Time 0 (Session 3),  $\beta_{20}$ , plus each adolescent's intercept's deviation from the grand mean,  $r_2$ . The parents' and adolescents' slopes (i.e., linear rate of change in session depth or improvement ratings),  $\pi_3$  and  $\pi_4$ , are a function of the average rate of change in depth or improvement for all family members across sessions,  $\beta_{30}$  and  $\beta_{40}$ , plus the parent's and adolescent's slopes deviation from the grand means,  $r_3$  and  $r_4$ .



The Level 2 parameters are the criterion variables in Level 3 of the model. Two Level 3 equations are related to the parent and adolescent intercepts coefficients at Level 1, and two Level 2 equations relate to the parent and adolescent slope coefficients in the Level 1 model. The parent intercept,  $\beta_{10}$ , is a function of the grand mean of all families' predicted session depth or improvement scores at Time 0 (Session 3),  $\gamma_{100}$ , plus each family's intercept's deviation from the grand mean,  $u_1$ . The adolescent intercept,  $\beta_{20}$ , is a function of the grand mean of all adolescents' predicted session depth or improvement scores at Time 0 (Session 3),  $\gamma_{200}$ , plus each adolescent's intercept's deviation from the grand mean,  $u_2$ . The parents' and adolescents' slopes (i.e., linear rate of change in session depth or improvement ratings),  $\beta_{30}$  and  $\beta_{40}$ , are a function of the average rate of change in depth or improvement for all families across sessions,  $\gamma_{300}$  and  $\gamma_{400}$ , plus the parent's and adolescent's slopes deviation from the grand means,  $u_3$  and  $u_4$ .

Model 2 was used to assess the contribution of the parent and adolescent actor effects and the parent and adolescent partner effects for alliance ratings on the parents' and adolescents' ratings of session depth or improvement-so-far. The two actor and two partner effects were modeled as time varying covariates for each family member by adding these actor and partner effects to the model (e.g., Tasca et al., 2010). The equations for Model 2 are as follows:

$$\begin{aligned} \text{Level 1: } y = & \pi_1 \text{Parent Intercept} + \pi_2 \text{Adolescent Intercept} \\ & + \pi_3 \text{Parent Session} + \pi_4 \text{Adolescent Session} \\ & + \pi_5 \text{Parent Actor} + \pi_6 \text{Child Actor} \\ & + \pi_7 \text{Parent Partner} + \pi_8 \text{Adolescent Partner} + e. \end{aligned} \quad (2)$$

$$\text{Level 2: } \pi_1 = \beta_{10} + r_1,$$

$$\pi_2 = \beta_{20} + r_2,$$

$$\pi_3 = \beta_{30} + r_3,$$

$$\pi_4 = \beta_{40} + r_4,$$

$$\pi_5 = \beta_{50} + r_5,$$

$$\pi_6 = \beta_{60} + r_6,$$

$$\pi_7 = \beta_{70} + r_7,$$

$$\pi_8 = \beta_{80} + r_8.$$

$$\text{Level 3: } \beta_{10} = \gamma_{100} + u_1,$$

$$\beta_{20} = \gamma_{200} + u_2,$$

$$\beta_{30} = \gamma_{300} + u_3,$$

$$\beta_{40} = \gamma_{400} + u_4,$$

$$\beta_{50} = \gamma_{500} + u_5,$$

$$\beta_{60} = \gamma_{600} + u_6,$$

$$\beta_{70} = \gamma_{700} + u_7,$$

$$\beta_{80} = \gamma_{800} + u_8.$$

At Level 2, the parent actor coefficient,  $\pi_5$ , is a function of the average relationship between parents' alliance ratings and parents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all parents across sessions,  $\beta_{50}$ , plus each parent's alliance session depth/improvement slope's deviation from the parent's mean,  $r_5$ . The adolescent actor coefficient,  $\pi_6$ , is a function of the average relationship between adolescents' alliance ratings and adolescents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all adolescents across sessions,  $\beta_{60}$ , plus each adolescent's alliance session depth/improvement slope's deviation from the adolescents' mean,  $r_6$ . The parent partner coefficient,  $\pi_7$ , is a function of the average relationship between parents' alliance ratings and adolescents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all parents across sessions,  $\beta_{70}$ , plus each parent's alliance session depth/improvement slope's deviation from the parent's mean,  $r_7$ . The adolescent partner coefficient,  $\pi_8$ , is a function of the average relationship between adolescents' alliance ratings and parents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all adolescents across sessions,  $\beta_{80}$ , plus each adolescent's alliance session depth/improvement slope's deviation from the adolescents' mean,  $r_8$ .

At Level 3, the parent actor coefficient,  $\beta_{50}$ , is a function of the average relationship between parents' alliance ratings and parents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all families across sessions,  $\gamma_{500}$ , plus each family's alliance session depth/progress-to-date slope's deviation from the families' mean,  $u_5$ . The adolescent actor coefficient,  $\beta_{60}$ , is a function of the average relationship between adolescents' alliance ratings and adolescents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all families across sessions,  $\gamma_{600}$ , plus each family's alliance session depth/improvement slope's deviation from the families' mean,  $u_6$ . The parent partner coefficient,  $\beta_{70}$ , is a function of the average relationship between parents' alliance ratings and adolescents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all families across sessions,  $\gamma_{700}$ , plus each family's alliance session depth/improvement slope's deviation from the families' mean,  $u_7$ . The adolescent partner coefficient,  $\beta_{80}$ , is a function of the average relationship between adolescents' alliance ratings and parents' ratings of session depth or improvement scores (the alliance session depth/improvement slope) for all families across sessions,  $\gamma_{800}$ , plus each family's alliance session depth/improvement slope's deviation from the families' mean,  $u_8$ . In HLM analyses, all error terms are assumed to be normally distributed, with a mean of zero. There is a variance component associated with each error term.

#### Session depth.

**Linear growth.** The linear growth model for session Depth, Model 1, showed that the predicted third session Depth score was

5.45 ( $SE = 0.80, p < .000$ ) for parents and 3.74 ( $SE = 1.38, p = .008$ ) for adolescents. The average rates of linear growth in session parents' and adolescents' perceptions of Depth were 0.30 ( $SE = 0.35, p = .400$ ) and 0.27 ( $SE = 0.51, p = .602$ ), respectively. These linear growth terms indicate that there was not a significant change in either parents' or adolescents' perceptions of Depth scores from Session 3 to Sessions 6 and 9. However, because the variances associated with both parent linear growth terms (0.66),  $\chi^2(12, N = 115) = 22.14, p = .036$ , and adolescent linear growth terms (5.03),  $\chi^2(12, N = 115) = 47.73, p < .000$ , were significant, these terms were included in the subsequent actor partner model.

**Actor effects.** For session Depth, the gamma statistics, standard errors, and  $t$  values for Model 2 are displayed in Table 1. As seen in the table, the parent actor effect was significant ( $\gamma = .28, p = .004$ ) but the adolescent actor effect was not ( $\gamma = .25, p = .257$ ). This means that parents' ratings of alliance were significantly related to their own ratings of session depth, whereas adolescents' ratings of alliance were not significantly related to their own ratings of session depth.

**Partner effects.** Parents' ratings of alliance were not significantly related to their adolescent's rating of session depth ( $\gamma = -.11, p = .491$ ; see Table 1). However, adolescents' ratings of alliance were significantly and negatively related to their parents' ratings of session depth ( $\gamma = -.43, p = .020$ ). This means that when teens saw a stronger alliance, their parents saw the session as less deep.

#### Improvement.

**Linear growth.** The linear growth model for improvement, Model 1, showed that the predicted third session improvement-so-far score was 2.98 ( $SE = 0.76, p < .000$ ) for parents and was 1.19 ( $SE = 0.88, p = .183$ ) for adolescents. The average rates of linear growth in parents' and adolescents' ratings of improvement were 0.15 ( $SE = 0.06, p = .027$ ) and 0.07 ( $SE = 0.04, p = .038$ ), respectively. These linear growth terms indicate that there was a significant linear increase in both parents' and adolescents' improvement ratings from Session 3 to Sessions 6 and 9.

**Actor effects.** The gamma statistics, standard errors, and  $t$  values for improvement-so-far, Model 2, are displayed in Table 2. As seen in the table, there was a significant adolescent actor effect ( $\gamma = .09, SE = .01, p < .000$ ). This means that adolescents' ratings of the alliance were significantly and positively related to their own ratings of improvement. The parent actor effect, however, was nonsignificant ( $\gamma = .03, SE = .02, p = .067$ ).

**Partner effects.** Results also showed a significant adolescent partner effect. That is, adolescents' ratings of the alliance were

Table 2

*Actor–Partner Interdependence Model for Improvement-So-Far*

Effect	$\gamma$	$SE$	$t(35)$	$p$
Parent intercept	2.98	0.76	3.90	.000
Adolescent intercept	1.19	0.88	1.35	.183
Parent session slope	0.15	0.06	2.59	.012
Adolescent session slope	0.07	0.04	2.11	.038
Parent actor	0.03	0.02	1.98	.067
Adolescent actor	0.09	0.01	7.78	.000
Parent partner	0.01	0.02	0.81	.434
Adolescent partner	0.03	0.01	2.53	.014

significantly and positively related to their parents' ratings of improvement ( $\gamma = .03, SE = .01, p = .014$ ). This means that when adolescents saw a stronger alliance, their parents saw more improvement. The parent partner effect was nonsignificant, however ( $\gamma = .01, SE = .02, p = .434$ ).

## Discussion

This exploratory study showed, first, that the APIM (Kenny et al., 2006) can be used to study family therapy processes, even when the sample is heterogeneous in family structure and when session attendance is inconsistent. Second, the results suggest that self-reported alliance scores are associated with evaluations of session impact and judgments of improvement in a complex, systemic way.

In terms of the depth or value of a session, we found a significant actor effect only for parents, that is, parent-rated alliance  $\rightarrow$  parent-rated depth. That is, parents who saw the alliance as stronger also saw the session as valuable. In terms of partner effects, however, only adolescent-rated alliance  $\rightarrow$  parent-rated depth was significant. Notably, when adolescents saw the alliance as strong, the parents reported the session to be relatively less valuable. The latter finding suggests that, in judging the worth of a session, parents were closely observing their adolescent's reaction to what was taking place. Apparently, very strong adolescent alliances were seen as relatively less productive by the parents.

In terms of perceived improvement, results show that adolescents' alliance ratings were positively associated with their own and with their parents' view of progress to date. That is, support was found for the hypothesized actor effect for adolescents (adolescent-rated alliance  $\rightarrow$  adolescent-rated improvement) but not for parents. Likewise, partner effects were significant only for adolescents (adolescent-rated alliance  $\rightarrow$  parent-rated improvement). In other words, the parents were likely to judge progress on the basis of how involved and comfortable their adolescents seemed to be with the process, but the adolescents were likely judging progress more in terms of their own experience.

Taken together, these findings demonstrate the complex interdependence of alliances in conjoint family therapy. Moreover, the results are consistent with previous research on the delicate balancing act required in conducting family therapy with adolescents (cf. Diamond, Liddle, Hogue, & Dakof, 1999; Robbins et al., 2008, 2003). It seems that when parents are committed to the therapy and like the therapist a great deal, they sense that the session is valuable. However, parents may see the session as relatively less valuable when their adolescent's alliance is also high because they

Table 1

*Actor–Partner Interdependence Model for Session Depth*

Effect	$\gamma$	$SE$	$t(35)$	$p$
Parent intercept	5.45	0.80	6.85	.000
Adolescent intercept	3.74	1.38	2.73	.008
Parent session slope	0.30	0.35	0.85	.400
Adolescent session slope	0.27	0.51	0.52	.602
Parent actor	0.28	0.08	3.55	.004
Adolescent actor	0.25	0.21	1.18	.257
Parent partner	−0.11	0.16	−0.71	.491
Adolescent partner	−0.43	−0.16	−2.64	.020

(the parents) view the therapist as too caught up in the adolescent's perspective. These inferences are speculative, of course, because we did not observe what actually took place in these sessions.

On the other hand, when it comes to evaluating progress, our results show that the parents and adolescents were more in agreement. That is, we found an adolescent actor effect and an adolescent partner effect on ratings of improvement-so-far. These results are potentially more important than the session impact findings because (a) ratings of improvement, but not session depth, increased over time, and (b) it is more meaningful that family members view their progress similarly than that they view a session similarly. In other words, different sessions can have varying impacts—at times the adolescents' involvement may discourage the parent—but teens who are invested in the therapy process seem to recognize the family's progress.

Because of the *ex post facto* nature of the design, causal inferences need to be made cautiously, but our sampling across three time periods strengthens our conclusions, as does our examination of individual therapist effects. The sample was limited with respect to racial diversity, and replication is needed to generalize to settings other than private, nonprofit community agencies. Another limitation is the use of a one-item improvement measure, and our unique focus on proximal outcomes. Because we only had post-treatment data for the 15 families that completed treatment (i.e., 75% of the current sample), we judged the sample size to be too small to include another criterion variable. However, because results of this exploratory study with proximal outcomes are meaningful, larger prospective studies along this line should include more distal indices of treatment outcome.

Another direction for future study is how various moderator variables affect alliance development and change in the context of actor-partner interdependence. For example, are partner effects more salient with relatively older adolescents or for teens whose problems are externalizing rather than internalizing? How does pretherapy level of family functioning influence actor and partner alliance effects? It seems possible, for example, that families who function fairly well may be more likely to have parallel actor and partner effects, that is, indicating that parents and teens see the therapeutic process similarly. For that matter, attachment factors may also play a role. Family members may do well in conjoint therapy despite being in conflict with one another if their attachment bonds are strong and unconditional.

Conducting conjoint family therapy is not simply a matter of treating adolescents in the presence of their parents. As demonstrated by this exploratory study, a systemic perspective is essential for understanding how family members are reacting to what goes on in conjoint therapy. Skilled family therapists are not daunted by the complexity but rather use it to full advantage to do what needs to be done—maximizing each and every client's personal and relational experience in the family.

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