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A Longitudinal Study of Therapist Emotion Focused Therapy Interventions

Predicting In-Session Positive Couple Behavior

Joshua R. Novak

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Jonathan G. Sandberg, Chair
Angela Bradford
James M. Harper
Richard B. Miller
Lee N. Johnson

School of Family Life

Brigham Young University

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ABSTRACT

A Longitudinal Study of Therapist Emotion Focused Therapy Interventions Predicting In-Session Positive Couple Behavior

Joshua R. Novak
School of Family Life, BYU
Doctor of Philosophy

This is a longitudinal multilevel analysis using third party coded data of 15 couples therapy sessions to identify which therapist Emotion Focused Therapy interventions (Management of Couple's Interaction, Working with Primary Emotion, Managing Defensive Responses, Reframing the Problem in Terms of the Cycle, and Placing Emerging Emotions into the Cycle) influenced husband-to-wife and wife-to-husband exchanges of Positive Behaviors (warmth, prosocial behaviors, communication, assertiveness, and listening). A mixed effects model was used to examine within- and between-individual variability. Men and women were modeled separately. A series of two-level multilevel models of change were examined, where Time is Level 1 and Individual is Level 2. Results indicated no significant relationship between Management of the Couple's Interaction, Managing Defensive Responses, and Reframing the Problem in Terms of the Cycle with both wife-to-husband and husband-to-wife positive behavior. Findings demonstrated that 44.5% of the variance in wife-to-husband positive behaviors and 66.5% of the variance in husband-to-wife positive behaviors was accounted for by the therapist Working with Primary Emotion and Placing Emerging Emotions in the Cycle. Specifically, these therapist interventions were significantly and negatively related to wife-to-husband and husband-to-wife positive behaviors over time in therapy. Clinical implications and directions for future research will be discussed.

Keywords: EFT, couples therapy, therapist behavior, interactional coding, process research

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Introduction

Marital distress and dissolution is a major problem in society that affects individuals, families, and society. Couple distress is frequently encountered by therapists and is considered to be a problem among 20% of all married couples at any given time (Lebow, et al., 2012).

Estimates on the economic impact of family dissolution and divorce are estimated at \$112 billion per year (Scafidi, 2008). Marital distress affects not only society, but also individuals. It has been found to directly affect many cardiovascular, endocrine, immune, neurosensory and other physiological systems (Kiecolt-Glaser et al., 1993; Kiecolt-Glaser & Newton, 2001), and can lead to impairment in social and work relationships, greater general and psychological distress, poorer perceived health, increased alcohol use, and increased suicidal ideation (Whisman, 2013; Whisman & Uebelacker, 2006).

Couples therapy is an important component of health services (Halford & Snyder, 2012). With about 70% of couples reporting positive change, it has been demonstrated to be an effective treatment option for decreasing couple distress (Lebow, et al., 2012). Despite this high percentage, meta-analytic studies have shown that there is little difference in outcomes among the types of couples therapy (Shadish & Baldwin, 2002). This has created considerable debate in the field of marriage and family therapy regarding specific therapist behaviors that account for client change.

Many researchers have adopted a ‘common factors’ approach to therapist behavior that assumes models have little effect on the outcome of therapy, with evidence suggesting that models/techniques account for only 15% of change (Blow & Sprenkle, 2001; Davis, Lebow, & Sprenkle, 2012). Others state that therapist faithfulness to a particular model of therapy (known as fidelity) leads to couple change (Oka & Whiting, 2013, Pinsof & Wynne, 2000). These two

schools of thought raise important questions about the validity and effectiveness of clinical trials and evidence-based treatments (EBTs). This is concerning because model validity and EBTs are essential factors in sustaining treatment quality and consistency across diverse therapists and settings over time (Campbell et al., 2013). Therefore, replication and verification of the therapist's role, including interventions and behaviors, must be verified. This has led researchers to study the 'process' of change in marital therapy (Heatherington, Friedlander, & Greenberg, 2005).

A particular model of couples therapy that has gained considerable momentum in the last decade, and effectively treats a number of couple-related issues is Emotion Focused Therapy (EFT; Johnson, 2004; Denton et al., 2000; Denton et al., 2012). Despite its effectiveness, EFT researchers and theorists have yet to identify which model-specific therapist behaviors, beside enactments, influence couples' patterns of interaction over time in therapy. Therefore, the purpose of this study was to identify EFT-specific therapist interventions that influence positive couple behaviors.

Literature Review

Distressed vs. Non-distressed Couples

Birchler and colleagues (1975) and John Gottman (1979, 1991, 1994) were some of the earliest pioneers in distinguishing distressed couples from non-distressed couples. Examining frequency of behaviors, Gottman (1994) found that distressed couples participate in fewer positive interactions and more negative interactions than non-distressed couples. Furthermore, Gottman's (1994) review of the literature based on observed interactions concluded that there are several interaction patterns and behaviors that distinguish between distressed and non-distressed couples. Distressed couples show lower levels of agreement, humor, reciprocated laughter,

approval, compliance, and a higher frequency of disagreement, criticism, and attacking behaviors. Specifically, distressed couples exhibit fewer validating behaviors when a spouse discusses a problem, are less likely to engage in problem solving behaviors, and are more likely to complain, and be defensive.

Gottman and Levenson (1992) also created a typology of couples based on the couples' behaviors. Using the Rapid Couples' Interaction Scoring System (RCISS; Krokoff, Gottman & Haas, 1989) and the Marital Interaction Coding System (MICS; Weiss & Summers, 1983), they found that couples could be classified as regulated or nonregulated, based on their number of positive and negative behaviors over time. Later, Gottman (1994) identified that these couples showed more negative behaviors, such as stubbornness, criticism, and withdrawal, and also experienced greater sympathetic nervous system arousal in times of conflict. Likewise, the strongest distinction between non-regulated and regulated couples was their ratio of positive to negative behaviors, with regulated couples having at least a 5 to 1 ratio and non-regulated couples having a lower ratio (Gottman, 1993). Non-regulated couples are also less likely to engage in positive behaviors that repair the relationship, such as humor, feeling probes, or distraction, and instead fail to make repair attempts (Piette, 1999). Since these early studies, researchers have investigated the effects of these behaviors on couple relationships and have sought ways of decreasing the negative behaviors and increasing the positive ones through conjoint, couple therapy.

Couples Therapy

Distinguishing distressed from non-distressed couples and identifying negative and positive behaviors that couples engage in is important to a therapist so that he/she can identify which patterns of interaction to target for intervention (Heyman, 2001). It is only when these

processes are known that a therapist can begin to highlight specific behaviors in session and employ interventions to correct and change these processes. This is when therapists can utilize a theoretically sound model of couples therapy to guide and direct their actions. A number of therapy models have been developed to address the marital distress created by an imbalance of positive to negative interactions. Some of these models include Gottman's Sound Marital House Theory (Gottman, 1999), Integrated Behavioral Couple Therapy (IBCT; Christensen, Jacobson, & Babcock, 1995; Jacobson & Christensen, 1996), Cognitive Behavioral Marital Therapy (CBMT; Baucom & Epstein, 1990), and Emotion Focused Couples Therapy (EFT; Johnson, 2004). These therapies use psychological interventions to target conflict-resolution skills and change the way couples interact (Baucom, Shoham, Mueser, Daiuto, & Stickle, 1998; Christensen & Heavey; 1999). Benson, McGinn, and Christensen (2012) published a review of the efficacy of evidence-based treatments and outlined five important principles for effective couples' therapy regardless of the specific model. These principles include: "a) altering the couple's view of the presenting problem to be more objective, contextualized, and dyadic; (b) decreasing emotion-driven, dysfunctional behavior; (c) eliciting emotion-based, avoided, private behavior; (d) increasing constructive communication patterns; and (e) emphasizing strengths and reinforcing gains" (p. 25).

Each of the major models of therapy may accomplish these specific tasks in different ways, using cognitive, behavioral, or emotional interventions. They specifically target the negative behaviors, including complaints, criticism, defensiveness, hostility, and withdrawal (Christensen & Heavey, 1990; Fincham, 2003; Matthews et al., 1996; Snyder et al., 2005) and seek to create positive exchanges between couples that create secure bonds. Researchers have identified positive couple interaction behaviors include warmth, empathy, support, and listening

behaviors. These behaviors have been found to strengthen and stabilize the couple relationship over time and are important factors that determine relationship quality (e.g., Fincham, 2003). If these behaviors are not present or occur less frequently, couples are at risk for relationship distress and dissolution.

Positive Couple Behaviors

Warmth and empathy. Expressed warmth has been found to be an important barometer for relationship satisfaction (Fincham, 2003; Pasch & Bradbury, 1998), and receiving warm, empathic responses are key to secure attachments in relationships (Johnson, 2004). People desire sympathy, support, understanding, and respect from their partner after they divulge feelings, thoughts, and show emotions (Laurenceau, Barrett, & Pietromonaco, 1998). When this warmth is displayed in interaction, partners are more likely to disclose (Lippert & Prager, 2001) and the interactions become increasingly intimate (Reis & Shaver, 1988). Individuals are more interested in interacting when their partners are warm and empathetic and avoid interaction when their partners are less warm and empathetic (Hill, 1991).

In the context of romantic relationships, partners rely on each other for support, validation, and compassion, and empathy in couple interactions is important in order to facilitate relationship maintenance (Waldinger, Schulz, Hauser, Allen, & Crowell, 2004). Research has focused on empathic accuracy and understanding of the spouse's thoughts and feelings during interaction (see Simpson, Ickes, & Blackstone, 1995; Simpson, Orina, & Ickes, 2003). Researchers have identified two distinct processes of empathy: a cognitive component (also referred to as perspective taking) and an emotional component (Davis, 1994; Duan & Hill, 1996; Hoffman, 1984; Strayer, 1987).

The cognitive component is the ability to put oneself in the partner's place from a cognitive point of view. The emotional component refers to one's emotional responsiveness to a partner's emotional experience (Péloquin & LaFontaine, 2010). Thus, empathy is a partner's ability to understand and share in the emotions of the other (Cohen & Strayer, 1996; Péloquin & LaFontaine, 2010). It is in this process of sharing and understanding emotions that partners feel more understood and validated, which can lead to close bonds and intimate connection. If this emotional intimacy is absent in the relationship, the bond is damaged over time, and may lead to relationship dissolution (Waldinger et al., 2004).

Social support. A partner's response to spousal stress, anxiety, and sadness can affect the individual (see Cohen, 2004; Kiecolt-Glaser & Newton, 2001) and the relationship (Barry, Bunde, Brock, & Lawrence, 2009; Kurdek, 2005; Pasch & Bradbury, 1998). Individuals often identify inadequate partner support as a major reason for relationship dissatisfaction and dissolution (Baxter, 1986). On the other hand, received support (measured by recipients' self-report) is associated with improvements in daily relationship well-being (Gable, Reis, & Downey, 2003). Couples who display high quality support during laboratory interactions are happier (e.g., Dehle, 2007; Julien, Chartrand, Simard, Bouthillier, & Begin, 2003) and have better long-term outcomes than other couples (Pasch & Bradbury, 1998). In terms of gender differences, researchers have found that women provide more emotional support than they receive from their male partners (Belle, 1982; Kunkel & Burlison, 1999; MacGeorge, Gillihan, Samter, & Clark, 2003).

Listening behaviors. Listening behaviors, such as responsive and active listening, are an important predictor of marital satisfaction (Gottman & Levenson, 1992; Gottman, Markman, & Notarius, 1977). The listener can provide both verbal behaviors (such as "I see", "Go on", "mm-

mm”) and nonverbal behaviors (such as head nodding, eye contact, and facial expressions that match the tone and emotional feel of the conversation, known as motor mimicry; Pasupathi, Carstensen, Levenson, & Gottman, 1999). These behaviors show the speaker that a partner is attending, responding, and understanding of what s/he is saying. Theorists have referred to this pattern as the listener-speaker exchange model (Notarius & Markman, 1993; Stanley et al., 1995).

In order for clinicians to understand how couples’ behaviors change, research is needed to identify how couples’ interactions change over time *in* therapy. As Jacobson (1991) stated, investigators need to “look for correlations between therapist interventions and client variables” (p. 390). Therefore, researchers have turned to observational coding methods to understand the change processes of therapy. These methods reduce research bias and allow for more objective inferences to be made about observable phenomena that have been operationally defined (Alexander et al., 1995; Heyman, 2001; Wampler & Harper, 2014).

Couple Change Due to Therapy

Research on couple behavior has attempted to identify which behaviors and interactions are associated with marital outcomes, such as relationship distress and dissolution. This research is important for change in marital therapy because it illuminates specific processes of couple interaction that can be targeted for intervention. Despite the importance of these studies (e.g., Christensen & Heavey, 1990; Fincham, 2003; Snyder et al., 2005), a dearth of literature exists that looks specifically at couple behavior in therapy sessions. Many researchers have used scoring systems and/or scales of couple behaviors in laboratory situations, while others have identified couples’ behaviors outside of therapy. Examples include the Marital Interaction Coding System (MICS-G; Weiss & Tolman, 1990), the Interactional Dimension Coding System

(IDCS; Julien, Markman & Lindahl, 1989), the Rapid Couple Interaction Scoring System (RCISS; Krokoff, Gottman & Hass, 1989), the Marital Interaction Rating System (MIRS; Roberts & Krokoff, 1990), the Global Couple Interaction Coding System (GCICS; Bélanger, Dulude, Sabourin & Wright, 1993), the Iowa Family Interaction Rating Scales (IFIRS; Melby et al., 1998), the Kategoriensystem für Partnerschaftliche Interaktion [Interaction Coding System](KPI; Remen, Chembliss, Steketee, & Renneberg, 2000), the Couple Interaction Rating System (CIRS), and the Social Support Interaction Rating System (SSIRS) combined (Sevier, Eldridge, Jones, Doss, & Christensen, 2008). However, those that have analyzed actual behavior in session have only studied therapist behavior or linked clinician behavior with therapy outcomes (see Christensen, Doss, & Atkins, 2005; Cline et al., 1984; Gurman, Kniskern, & Pinsof, 1986; Jacobson & Addis, 1993; Johnson & Lebow, 2000; Piette, 1999; Snyder & Halford, 2012).

Only in the last 15 years have theorists categorized the difference between process research and client change processes, the latter of which is defined as significant shifts in client behavior that occur during sessions in relation to therapy (Doss, 2004). Within the field of couple therapy research, few studies have identified changes in couples' behavior as it occurs in therapy sessions. Doss et al. (2005) researched changes in behaviors, communication, and acceptance across Traditional Behavioral Couples Therapy (TBCT; Jacobson & Margolin, 1979; O'Farrell & Fals-Stewart, 2006) and Integrative Behavioral Couples Therapy (IBCT; Jacobson & Christensen, 1996), investigating how these changes related to relationship satisfaction. While both therapies produced improvements in behaviors and positive communication, TBCT couples reported greater gains in these behaviors than IBCT earlier, but not later, in treatment. In contrast to TBCT, IBCT couples reported greater increases in acceptability of these behaviors across

treatment. Across both therapies, gains in behaviors, communication, and acceptance were related to increases in relationship satisfaction during the first half of treatment; however, during the second half, only gains in acceptance were related to increases in satisfaction.

Later, a study by Sevier and colleagues (2013) compared couples in TBCT and IBCT and used multilevel modeling to assess change over time. They found that TCBT responders increased in constructive behavior early on but decreased later, while ICBT responders demonstrated the opposite effect—decreasing in constructive behavior early, but increasing later on in therapy. Although these studies show relationship changes due to therapy, they do not show change due to model-specific therapist behavior. This is problematic because therapists need to know how to best intervene specifically in couples' patterns of interaction.

Empirically Supported EFT Interventions

This study focused on Emotion Focused Therapy (EFT; Johnson, 2004), one of the most efficacious models of couples therapy at increasing relationship satisfaction while decreasing couple distress (Dunn & Schwebel, 1995; Johnson, Hunsley, Greenberg, & Schindler, 1999; Wood, Crane, Schaalje, & Law, 2005). Several researchers have attempted to establish empirical support for the therapist's use of EFT-specific interventions (e.g., see Furrow, Johnson, & Bradley, 2011; Greenman & Johnson, 2013). This is important in order to verify if certain interventions are more predictive of high quality EFT.

Therapist behaviors. Sandberg, Brown, Schade, Novak, Denton, and Holt-Lunstad, (*in press*) used the Emotion-Focused Therapy-Therapist Fidelity Scale (EFT-TFS; Denton, Johnson, & Burleson, 2009) to measure the therapist's knowledge and ability of EFT interventions and identify skills predictive of high fidelity EFT. Traditionally, scholars have defined fidelity in two ways: *adherence* and *competence*. *Adherence* refers to the degree to which therapists are

delivering model specific techniques and interventions according to theory. *Competence* refers to the overall skill with which these techniques or methods are employed (Barber et al., 2006; Barber et al., 2008; Webb et al., 2010). The EFT-TFS measures both adherence and competence. The authors demonstrated both within-rater reliability ($\alpha=0.55-0.91$) and between-rater reliability (ICC = .913). Also, results from a discriminant analysis found the EFT-TFS was able to accurately distinguish between high and low fidelity to EFT with 95% correct classification. Results also suggested that some skills were more predictive of high quality EFT (as indicated by highest scores on a discriminate analysis), including Management of Couple's Interaction, Working with Primary Emotion, Managing Defensive Responses, Reframing to the Cycle, and Emotion in the Cycle. A brief description of these key interventions are below.

Management of the couples' interaction. An essential skill for the therapist is to effectively manage the session and direct the couple's interaction. Each partner in the couple may deflect, sidetrack, or deter therapy, and the therapist needs to reframe these in order for a corrective emotional experience to take place. There also may be "non-interaction" (Denton et al., 2009, p. 7) which occur in the form of jokes, focusing on content, withdrawing, etc. The therapist must help the couple stay on track and keep the session focused by framing the cycle, problems, and emotions in terms of the attachment needs and fears (Denton et al., 2009).

Managing defensive responses. One of the most important of skills in EFT is the management of the couples' defensive responses, as conflict may occur in the form of condescending, criticizing, and blaming (Denton et al., 2009). It is the job of the therapist to intervene when these comments are made in order to "catch the bullet" (Johnson, 2004, p. 152) and prevent partners from being injured again and again. "The therapist helps both parties understand the trigger in the discloser's words that resulted in defensiveness, while illuminating

the meaning attached to those words by the defensive partner and their resulting response” (Denton et al., 2009, p. 11). The therapist might also reframe these defenses in terms of the cycle so as to illuminate unacknowledged emotions and attachment concerns.

Reframing the problem in terms of the cycle. The goal of this intervention is to shift the couple’s view of the problem and define it in terms of the cycle of negative interaction they both engage in. The therapist refers to the cycle as the “enemy”, thus enlisting the couple to work together against it. In order for this to take place, the therapist must continually track and define the process of interaction by linking each partner’s emotions and behaviors together. This must happen many times in each session for the couple to buy in and accept the reframes. If evidence surfaces that one or both partners are not yet ready to accept the systemic frame, therapist notices quickly and moves to restore safety, trust, and rapport - continuing to validate each partner's version of events without retreating from continuing to gently offer the systemic reframe (Denton et al., 2009).

Working with primary emotions. Another key EFT skill is the therapist’s ability to help each partner access emotions, some of which each individual may not even be conscious of (Denton et al., 2009). Primary emotions are the immediate emotional response to a situation, such as hurt, pain, fear, etc. Secondary emotions are often reactive responses to primary emotions, and include anger, rage, and frustration. The therapist helps each partner uncover their emotional experiences, working down from secondary emotions to the primary emotions that are often associated with attachment fear (fear of inadequacy, fear of abandonment, etc.). This accessing of emotions allows for the reorganization of behavior and a change in negative interaction cycles. To accomplish this task, the therapist employs interventions such as evocative responses, reflections, interpretations, and process replays (Denton et al., 2009) and uses the

“RISSSC” acronym (“repeats, uses images, simple words, slow, soft voice, uses client words”) when processing and working with primary emotion (Johnson, 2004).

Placing emerging emotions into the cycle. In many models of therapy, the couple’s cycle may only be dealt with on a behavioral level. By the same token, other models may focus on emotions absent from the relational context. A unique aspect of EFT is the placement of emotions into the systemic cycle. The therapist behaviors embodied in this skill help the couple to see how each partner's emotions are reactions linked to the behavior of the other person so that each sees how they contribute to the other's negative responses, thereby creating the cycle. This takes place as the emotions are emerging in session, thus resulting in a new emotional experience (Denton et al., 2009).

The above interventions are key to creating change in EFT, and the successful employment of them can lead to lower distress and higher connection in couples. However, no research has ever linked these interventions to couples’ exchanges in a therapy session.

Differences between high and low fidelity. Additionally, one study was conducted to identify qualitative differences between high and low fidelity in both theme and word frequency (Novak, Sandberg, Stucki, Brown, Schade, & Holt-Lunstad, *in press*). The results revealed that therapists who demonstrate high fidelity use more primary emotion words and fewer cognitive words than low fidelity therapists. Differences emerged among the therapists who demonstrated high and low fidelity across a number of categories. For the theme of “Primary Focus”, therapists who demonstrated high fidelity focused on creating new experiences, whereas therapists who demonstrated low fidelity focused on insight and understanding. In the theme “Management of the Session”, the therapist who demonstrated high fidelity was directive and managed the session, whereas the therapist who demonstrated low fidelity allowed the clients to be more

directive. In the theme of “Ability to Process Emotion”, the therapist who demonstrated high fidelity sought to heighten emotion in the room and create emotional experience whereas the therapist who demonstrated low fidelity just described emotion. Finally, in the theme of “Ability to Deepen emotion”, the therapist who demonstrated high fidelity created moments where clients felt the emotion with more intensity, whereas the therapist who demonstrated low fidelity tended to focus on cognitions.

These differences highlight the therapist’s position and behavior in session, but the authors did not attempt to link behaviors with couple outcomes or in-session exchanges between partners. Several studies have investigated specific processes of EFT and couple change (Furrow, Johnson, & Bradley, 2011; Greenman & Johnson, 2013; Greenberg, Ford, Alden & Johnson, 1993; Lebow, Chambers, Christensen, & Johnson, 2012; Zuccarini, Johnson, Dalgleish & Makinen, 2013), but little have examined the aforementioned linkage of therapist behavior/interventions and couple processes.

Therapist behavior and couple change processes. Schade, Sandberg, Bradford, Harper, Holt-Lunstad, and Miller (2014) studied EFT sessions over time and measured triadic interactions between the therapist, wife, and husband. They found that over time warmth from husband to wife sloped downward in therapy. However, when the therapist showed warmth toward the husband, the husband’s warmth toward the wife increased over time. Despite this finding, the study did not attempt to behaviorally describe specific EFT interventions, but instead used codes of warmth, a concept theoretically linked to EFT.

Finally, although enactments have been found to be an important intervention for change in couples therapy (Andersson, Butler & Seedall, 2006; Butler, Harper & Mitchell, 2011; Mitchell, et al., 2008), only one study empirically verified the use of enactments in EFT. Bradley

and Furrow (2004) found that therapist-facilitated enactments are one method whereby therapists can facilitate healthy patterns of client responses that lead to change. In enactments, partners learn to reach out and support one another as a way to resolve negative interaction patterns. These studies have been important in identifying some processes of change, yet more research needs to focus on empirically validating EFT interventions. This was the goal of the present study.

Current Study

Drawing upon the work of Sandberg et al. (*in press*), which found that certain EFT interventions are predictive of higher quality EFT (Management of Couple's Interaction, Managing Defensive Responses, Reframing the Problem in Terms of the Cycle, Working with Primary Emotion, and Placing Emerging Emotions into the Cycle), this study attempted to identify which EFT interventions influence couple processes in therapy over time. Of particular importance are the positive behaviors exhibited during a couples' interaction that lead to increased satisfaction and higher relationship quality. This study was unique in that it used third party observational coding of both the therapist behaviors and the couples' interaction, which serves to provide objectivity and reduce bias (Alexander et al., 1995). Therefore, the purpose of this study was to identify how the therapists' EFT interventions (Management of Couple's Interaction, Working with Primary Emotion, Managing Defensive Responses, Reframing the Problem in Terms of the Cycle, and Placing Emerging Emotions into the Cycle) influence husband-to-wife and wife-to-husband Positive Behaviors (warmth, prosocial behaviors, communication, assertiveness, and listening).

Hypotheses

The following hypotheses were examined:

1. Management of Couples' Interaction will be positively associated with husband-to-wife and wife-to-husband Positive Behaviors over time.
2. Managing Defensive Responses will be positively associated with husband-to-wife and wife-to-husband Positive Behaviors over time.
3. Reframing the Problem in Terms of the Cycle will be positively associated with husband-to-wife and wife-to-husband Positive Behaviors over time.
4. Working with Primary Emotion will be positively associated with husband-to-wife and wife-to-husband Positive Behaviors over time.
5. Placing Emerging Emotions into the Cycle will be positively associated with husband-to-wife and wife-to-husband Positive Behaviors over time.

Methods

Overview of Study

The data for this study was drawn from a larger research project on the influence of marital therapy on health outcomes. As part of the study, therapists provided 12 sessions of EFT for couples in a community mental health center that is affiliated with a large University in the Southwestern United States.

Participants

Fifteen married couples provided the data for the current study at intake. The mean age for husbands and wives in the study was 36.13 (S.D. =12.33) and 32.40 (S.D. =11.82) respectively. The median length of marriage was 6.5 years with a range of less than one to 29 years. On average, couples reported having two children. Fourteen of the husbands and 14 of the wives self-identified as Caucasian; one husband and one wife (each married to someone else) described themselves as Hispanic. Two couples reported an annual household income of less

than or equal to \$10,000, five couples reported making between \$10,000-24,999, two couples reported between \$25,000-39,000, one couple reported making between \$55,000-69,999, four couples reported between \$70,000-84,999, and one couple reported between \$85,000-99,000. Finally, the mean score on the Dyadic Adjustment Scale (DAS; Spanier, 1976) for wives pre-therapy was 90.967 (S.D. =20.14) and 96.07 (S.D. =14.92) for husbands pre-therapy. At the end of therapy, the mean score on the DAS for wives was 108.00 (S.D. =19.98) and for husbands was 106.08 (S.D. =20.32). See Table 1 for full participant demographics and Table 2 for DAS pre- and post-scores by couple.

Procedures

Participant recruitment. After receiving Institutional Review Board (IRB) approval, couples were recruited through flyers posted in the clinic building, on campus, and in departments of other mental health related fields, mental health clinics, and libraries in the community. Participants were offered a \$250 payment and 12 sessions of free marital therapy for participation. Couples took the Revised Dyadic Adjustment Scale (RDAS) to screen out those who did not meet criteria for distress (Busby, Christensen, Crane & Larson, 1995). Couples in the study all had one member of the partnership who scored 49 or lower on the RDAS, indicating mild to moderate marital distress. Once couples met study inclusion requirements and completed consent forms, they were enrolled in therapy. The couples were given the monetary gift upon completing all 12 therapy sessions. Those who did not qualify were offered therapy, but were not included in the study.

Therapist selection, training, and supervision. The therapists in the study were two male and two female interns (three second year MS students; one first year doctoral student) in a COAMFTE-accredited marriage and family therapy graduate program. These student therapists

were recruited for the study according to their interest in Emotionally Focused Couples Therapy (EFT). As part of the study, they provided 12 sessions of therapy on a weekly basis to the couples who had passed screening and agreed to volunteer in the study. Therapists were introduced preliminarily to EFT in a couples' therapy class designed to teach and refine couples therapy skills.

Once enrolled as therapists in the study, the clinicians received weekly supervision from an EFT-certified therapist and an EFT and AAMFT supervisor-in-training. This supervision focused on EFT-based conceptualization of cases and execution of EFT specific skills (steps and stages of EFT; Johnson, et al., 2005). Every other week, all therapists met for supervision with a certified EFT therapist and supervisor. This supervision focused on research program adherence, more difficult EFT cases, and the theoretical basis of EFT and attachment.

Rating therapist behavior. For the purposes of this study, the raters used the EFT-TFS (Denton et al., 2009) to identify the quality of the therapist's EFT interventions. Raters began scoring 10 minutes into the session, and then rated the next 10 minutes of the session. This procedure was decided upon with the assumption that the first 10 minutes of sessions may be administrative or 'catch up' and are not typically when interventions occur. Sessions 3, 7 and 11 were rated for the 15 cases to represent the beginning, middle, and end stages of therapy. There were a few cases in which these sessions were incomplete, due to recording error or dropout. In two cases, session 4 was used instead of session 3; in one case, session 6 was used instead of session 7, and in two cases session 10 was used instead of session 11. Each session was rated by two different raters, with the infrequent exception of practice/training sessions where three raters scored the same tape (this occurred for two cases). Overall, 45 sessions were rated over an 18-month period.

Rater selection and training. Six different therapists or therapists-in-training participated in the rating of tapes. Three of the raters were considered ‘experienced’ because they had received formalized training in EFT from EFT-certified trainers. The three other raters were all Masters’ students in a COAMFTE accredited masters’ program and had participated in the bi-weekly EFT group supervision meetings. Three of the raters were female and three were male.

Prior to rating, each rater read through the fidelity scale article (Denton et al., 2009) as well as the EFT-TFS manual and scoring sheet (Denton, 2007). In the first stage of scoring sessions, the experienced raters met as a group to watch and rate sessions as a triad, using the rating sheet to score therapist behaviors. During the scoring of these two sessions, the experienced raters discussed and debated as a group each therapist behavior prior to classification in order to broaden their own conceptualization of the rating sheet. However, each rater was left to score therapist behaviors according to their own interpretation. After this introductory experience, the raters met with the developer of the EFT-TFS manual and scoring sheet to seek clarification regarding the distinction between categories as well as to address questions that had arisen in the initial rating sessions. This initial meeting with the lead author of the fidelity scale provided an external credibility check early on in the rating process; it also helped to center the training of other raters in the EFT-TFS manual and principles.

Next, raters rated a session individually and checked for reliability among scores. Once it was clear that the three more experienced raters could conceptualize and rate behaviors reliably, and in accordance with the manual, the experienced raters were then partnered in dyads with the novice raters. A similar training process (rating sessions together as dyad, discussion/debate of each therapist behavior, check for reliability) was then followed with the novice raters until all 6 raters could score sessions individually in a manner consistent with both the scoring sheet and

with his/her assigned partner. From this point, sessions were assigned to dyads of one experienced and one novice rater based on each rater's work availability. This two-rater system helped increase reliability, as described by Vallis and colleagues (1986).

Each rating of the same session was compared to its counterpart; whenever raters diverged on a specific therapist behavior by more than one point on the Likert scale, the raters were required to meet, review the scoring, and discuss the discrepancy to resolve the scoring difference (as discussed in Wampler and Harper, 2014). However, throughout the study, this "mediation" process was used only 1.2 % (only 6 out of 520 subscales where raters could potentially diverge more than 1 point) of the time. In order to control for inflated inter-rater reliability scores in the group ratings (N=6), these sessions were excluded from the final analysis and the results presented below are drawn from only the sessions rated individually (N=45).

Interactional coding procedures. In addition to rating the EFT sessions, the couple's and therapist's interactions were coded using the Iowa Family Interaction Rating Scale (IFIRS; Melby et al., 1998). Several non-therapist undergraduates in a coding lab in a large, southwestern university scored the videotapes. All coders were trained on the procedures of the IFIRS by reading the coding manual that provides detailed descriptions and examples of each scale. In order to demonstrate mastery with the IFIRS, coders took tests and practiced coding observed tasks and discussed them in a group with other trained coders. They did this several times. Additionally, they had to code and achieve 80% agreement on a task, an agreed upon percentage by Melby and Conger (2001). All of these ratings were compared over several weeks with certified coders to verify their achievement of 80% inter-rater reliability in order to code tasks for the study. They were tracked consistently to ensure they maintained the 80% agreement and

if not, they met and were required to attend discussion groups to code tasks up to standard. The entire training process took approximately 90 hours per coder.

For this study, coders rated the same sessions that were scored on the EFT-TFS, sessions 3, 7, and 11. The coders were asked to watch 10 minutes of digital recordings from each session in order to get a feel for the interactions. Then, they would flip a coin to randomize which person in the therapy room (wife, husband, or therapist) would be focused on first. For this study, coders only focused on dyadic interactions (wife-to-husband and husband-to-wife behaviors). Coders assigned a rating to that person based on frequency, intensity, and context from 1 (not at all) to 9 (totally) for 30 codes. These scores represented the corresponding behavior for the whole session. For this study, only positive behaviors were analyzed, including warmth, listening, communication, and pro-social behaviors.

Measures

Therapist behaviors. In order to measure the therapist's behaviors and use of EFT interventions, the raters used the EFT-TFS (Denton et al., 2009) scoring sheet to rate all sessions. The scoring sheet lists all 13 therapist behaviors outlined in the fidelity scale (see Appendix A) with a 5-point Likert rating scale. The anchors on the scoring sheet are 1—*poor demonstration of skill*, 3—*adequate demonstration of skill*, 5—*exemplary demonstration of skill*. For the purposes of this study, only five of the total thirteen skills were used, including *Management of Couple's Interaction*, *Managing Defensive Responses*, *Reframing the Problem in Terms of the Cycle*, *Working with Primary Emotion*, and *Placing Emerging Emotions into the Cycle*. These five were chosen because they represent the main tenets of EFT and are demonstrated to predict higher quality EFT (Sandberg et al., *in press*).

Initial analyses revealed that *Management of Couples' Interaction* and *Managing Defensive Responses* were highly correlated ($r = .65$) and therefore the decision was made to combine an average of the two variables into one variable as *Managing the Couple and Defenses* (Cronbach's Alpha = .772). Additionally, bivariate correlations revealed a high correlation between *Working with Primary Emotions* and *Placing Emerging Emotions into the Cycle* ($r = .88$), therefore the two were averaged into one variable as *Use of Emotions and Emotions in the Cycle* (Cronbach's Alpha = .935). The three variables that resulted for analysis were *Managing the Couple and Defenses*, *Use of Emotions and Emotions in the Cycle*, and *Reframing the Problem in Terms of the Cycle*.

Positive couple behaviors. The scores for positive behaviors were provided by third-party observer ratings of five variables from the Dyadic subscale of The Iowa Family Interaction Rating Scale (IFIRS; Melby et al., 1998). The five behaviors included in the composite measure were warmth/support, listener responsiveness, prosocial behavior, assertiveness, and communication. They were chosen because the presence of these behaviors in relationships leads to higher relationship satisfaction and relationship quality (Dehle, 2007; Gable, Reis, & Downey, 2003; Johnson, 2004). *Warmth/Support* involved expressions of interest, care, concern, positive evaluation, and encouragement. *Listener responsiveness* included verbal and nonverbal indications of attention to and interest in the expressions of the partner. *Prosocial behavior* included helpfulness, sensitivity, and cooperation. *Assertiveness* was an open, self-confident, nonthreatening style of presentation. *Communication* involved expressing one's point of view, needs, and wants in a clear, appropriate, and reasonable manner (see Appendix B for full descriptions). The five items were summed together to form a composite outcome variable, a method that has been shown to be reliable and valid by Melby and colleagues (1995). Thus two

composite outcome variables resulted for analysis—husband-to-wife positive behaviors (Cronbach’s alpha = .868) and wife-to-husband positive behaviors (Cronbach’s alpha = .861). Scores could range from 9 to 45, with higher scores indicating higher presence of positive behaviors.

The IFIRS is a macro-coding system, which means that each participant is given a single score for each code at the end of the task, rather than being assigned a score for multiple, shorter time segments, or for each speaking turn, as is the case with micro-coding systems. This score is determined by the coder based on the frequency and intensity with which the participant exhibits the verbal and nonverbal behavior described in the code. The scores range from 1 to 9, with a score of 1 indicating that the behavior did not occur. In general, a score of 3 indicates that “*the behavior almost never occurs or occurs just once and is of low intensity*,” a score of 5 means “*the behavior sometimes occurs and is at a low or moderate level of intensity*,” a score of 7 means that “*the behavior occurs fairly consistently or is of elevated intensity*,” and a score of 9 means “*the behavior occurs frequently or with significant intensity*” (Melby et al., 1998, p. 7–8). In the IFIRS, any given behavior can be used as evidence for more than one code, meaning that codes are not mutually exhaustive. Therefore, participants can score on multiple categories. The IFIRS have been used in previous studies and have demonstrated acceptable validity and reliability ($\alpha=.81-.83$; Melby, Conger, Ge, & Warner, 1995; Melby, Conger & Puspitawati, 1999).

Analysis

A mixed effects model, or multilevel model was used to analyze the nested data intrinsic to longitudinal observations, and which is appropriate for handling within- and between-individual variability (Atkins, 2005). Due to the extremely small sample size (N=15), results for

men and women were modeled separately. For men and women, a series of two-level multilevel models of change were examined, where Time was Level 1 and Individual was Level 2.

Reframing the Problem in Terms of the Cycle, *Use of Emotions and Emotions in the Cycle*, and *Managing the Couple and Defenses* were predictors and husband-to-wife positive behaviors and wife-to-husband positive behaviors were outcome variables.

First, an unconditional means model with fixed and random effects was fit for each outcome. Next, Time (centered at session 1) was added as a fixed effect, allowing for the examination of unconditional growth in the outcome. Then, a series of models were fit in which substantive predictors were added altogether first, and then, one by one, systematically removed to examine their fixed effects on the intercept and slope. The systematic addition of Time and the predictors resulted in a series of nested models; thus, comparative model fit indices (-2LL, AIC, BIC) were examined across models to help select the final model for each outcome. SPSS version 21.0 was used in the analysis.

Results

Preliminary Analyses

The descriptive statistics for all study variables at each time point are displayed in Table

3. It is important to note that the therapist employment of each intervention was average:

Managing the Couple and Defenses was less than 3 (range 1-5) and parabolic, *Reframing the Problem in Terms of the Cycle* was about 3 (range of 1-5) and decreased over time; *Use of Emotions and Emotions in the Cycle* was also less than 3 (range of 1-5) and decreased over time.

Wife-to-husband positive behaviors averaged between 16 and 20 and increased over time, and husband-to-wife positive behaviors averaged between 15 and 19 and also increased over time.

Despite the positive behaviors increasing, the possible range of scores was between 9 and 45 (on

a scale of 1-9 for each of the 5 items). Thus, for this study, the scores were below the median, meaning that positive behaviors did not occur at a high frequency or intensity. Pearson correlations between the wife-to-husband and husband-to-wife positive behaviors are shown in Table 4. Results revealed significant and high correlations between the outcome variables. Additionally, Figure 1 shows the trajectory of wife-to-husband and husband-to-wife positive behaviors for each couple over time. Pearson correlations between each therapist behavior and the wife outcome variable as well as each therapist behavior and the husband outcome variable used in the final model are featured in Tables 5-10. Significant correlations existed among each variable, but not between variables. Pearson correlations between each therapist behavior are shown in Table 11.

Wife Positive Behaviors

The means model indicated that across all time points and individuals, Wife-to-Husband Positive Behaviors was 18.42 ($p < .001$). Examination of random effects indicated that there was significant within-individual variance (Residual Estimate divided by SD Error: 26.58/6.86). An intra-class correlation was calculated ($\rho = \sigma^2_{\epsilon} / \sigma^2_{\epsilon} + \sigma^2_0$) and indicated that 44.44% of the variance was due to within individual variance. To examine unconditional growth, centered linear time (SessionsC) was added to the model. Time-varying independent therapist behavior variables were then added as Level 2 predictors in order to test for the effect on the rate of change. All three predictor variables were added (*Reframing the Problem in Terms of the Cycle*, *Use of Emotions and Emotions in the Cycle*, and *Managing the Couple and Defenses* (see Table 9; Model C). Results of a delta deviance test indicated that model fit improved with the addition of all three predictor variables (Δ Deviance = 16.244 for 6 degrees of freedom). Then, systematic removal of predictor variables was performed to see if model fit improved. First, *Managing the*

Couple and Defenses was removed (Model D), then *Emotions and Emotions in the Cycle* (Model E). Model fit did not improve in either model, thus Model C was chosen as the final model. The model fit statistics are reflected in the AIC at 302.77 and BIC at 324.19.

The final model for wife-to-husband positive behaviors revealed no support for hypotheses 1-3, as there was not a significant association between *Managing the Couple and Defenses* and *Reframing the Problem in Terms of the Cycle* with wife-to-husband positive behaviors. However, there was little support for hypotheses 4 and 5. A significant effect was found only for the *Use of Emotions and Emotions in the Cycle* predictor variable. On average, the wife's positive behaviors toward her husband were 10.479 and increased 1.17 for each session; however, the therapist working with primary emotions and placing emerging emotions back into the cycle had a statistically significant effect on the intercept and slope. It is important to note that out of a possible score of 45 (9 points for each of the five behaviors included for the Wife-to-husband outcome variable), a score of 10 was not a particularly high score.

A prototypical plot (Figure 1) for high and low therapist use of emotion in the cycle, which are one standard deviation above and below the mean (Therapist use of emotion: Mean= 2.33, S.D. =0.92, High=3.25, Low=1.41), was constructed using the fitted linear equation. The plot suggests that at lower levels of the therapist's skill of working with primary emotion and placing emerging emotions back into the cycle, wife positive behaviors over time increases more sharply. At higher levels of therapist's use of emotion, wives' positive behaviors increases less sharply toward their husbands throughout the course of therapy. To examine differences at the last session in the study (rather than the initial session), we centered time at session 11 and fit the model again. Results indicated that on average, wives' positive behaviors at session 11 was statistically significantly different from zero ($\gamma_{00} = 33.71, SE = 5.94$). These results revealed that

there was a significantly different intercept at the end of therapy, and that wife-to-husband positive behaviors increased over time. Random effects from the unconditional means model and the final model were used to calculate a Pseudo-R² statistic [$\sigma^2_{\epsilon(\text{model A})} - \sigma^2_{\epsilon(\text{model C})} / \sigma^2_{\epsilon(\text{model A})}$], which indicated that approximately 63% of the within-individual variance was explained by therapists' interventions of working with primary emotion and placing emerging emotions back into the cycle.

Husband Positive Behaviors

The means model indicated that across all time points and individuals, Husband-to-Wife Positive Behaviors was 17.33 (p<.001). Examination of random effects indicated that there was significant within-individual variance (Residual Estimate divided by SD Error: 32.29/8.34). An intra-class correlation was calculated ($\rho = \sigma^2_{\epsilon} / \sigma^2_{\epsilon} + \sigma^2_0$) and indicates that 61.5% of the variance was due to within individual variance. To examine unconditional growth, centered linear time (SessionsC) was added to the model. Time-varying independent therapist behavior variables were then added as Level 2 predictors in order to test for the effect on the rate of change. All three predictor variables were added (*Reframing the Problem in Terms of the Cycle*, *Use of Emotions and Emotions in the Cycle*, and *Managing the Couple and Defenses* (see Table 10; Model C). Results of a delta deviance test indicated that model fit improved with the addition of all three predictor variables ($\Delta\text{Deviance} = 16.58$ for 6 degrees of freedom). Then, systematic removal of predictor variables was performed to see if model fit improved. First, *Managing the Couple and Defenses* was removed (Model D), then *Emotions and Emotions in the Cycle* (Model E). Model fit did not improve in either model, thus Model C was chosen as the final model. The model fit statistics are reflected in the AIC at 299.72 and BIC at 321.13.

The final model for husband-to-wife positive behaviors revealed no support for hypotheses 1-3, as there was not a significant association between *Managing the Couple and Defenses* and *Reframing the Problem in Terms of the Cycle* with husband-to-wife positive behaviors. However, there was little support for hypotheses 4 and 5. A significant effect was found only for the *Use of Emotions and Emotions in the Cycle* predictor variable. On average, the husband's positive behaviors toward his wife were 14.61 and increased .93 for each session; however, the therapist working with primary emotions and placing emerging emotions back into the cycle had a statistically significant effect on the intercept and slope. It is important to note that out of a possible score of 45 (9 points for each of the five behaviors included for the Husband-to-wife outcome variable), a score of 14.61 was not a particularly high score.

A prototypical plot (Figure 2) for high and low therapist use of emotion in the cycle, which are one standard deviation above and below the mean (Therapist use of emotion: Mean= 2.33, S.D. =0.92, High=3.25, Low=1.41), was constructed using the fitted linear equation. The plot suggests that at lower levels of the therapist's skill of working with primary emotion and placing emerging emotions back into the cycle, husband-to-wife positive behaviors over time increases more sharply. At higher levels of therapist's use of emotion, husbands' positive behaviors increased less sharply toward their wives throughout the course of therapy. To examine differences at the last session in the study (rather than the initial session), sessions were centered at session 11 and the model was fit again. Results indicated that on average, husbands' positive behaviors at session 11 was statistically significantly different from zero ($\gamma_{00} = 29.28$, $SE = .6.26$). These results revealed that there was a significantly different intercept at the end of therapy, and that husband-to-wife positive behaviors increased over time. Random effects from the unconditional means model and the final model were used to calculate a Pseudo-R² statistic

$[\sigma^2_{\varepsilon(\text{model A})} - \sigma^2_{\varepsilon(\text{model C})} / \sigma^2_{\varepsilon(\text{model A})}]$, which indicated that approximately 45% of the within-individual variance was explained by therapists' use of emotion.

Post-hoc Analyses

In order to gain a clearer picture on the interpretation of the results, post-hoc analyses were performed to see if the findings were influenced by therapist skill/training level, or couple distress level. First, a post-hoc analysis was performed to see if differences in overall EFT fidelity significantly affected the results. Independent samples *t*-tests were performed using the cutoff score of 39 (average of a “3” or adequate demonstration on each skill, is the cutoff for quality EFT; as recommended by Denton et al., 2009) to see if higher fidelity EFT affected couples' interactions differently. Results revealed that there was not a significant difference in wife-to-husband or husband-to-wife positive behaviors based on EFT fidelity scores (High: N=4; Low: N=11).

Additionally, independent samples *t*-tests were performed using the dyadic adjustment cutoff score of 97 (below are clinically distressed) as recommended by Crane et al. (1990). This was performed to determine if there was a difference between distressed and non-distressed couples and the positive behaviors exhibited toward each other. Results revealed that there was a significant difference in wife's positive behaviors toward men at time 3 between distressed (N=11) and non-distressed women (N=4). Further examination shows that on average, women who were not distressed at time 3 increased about 7 points in their positive behaviors over time in comparison to distressed women, who only increased about 3 points over time. Results for men were similar. These findings suggest that there may be a difference in the rate of change that is dependent on the level of distress in the relationship at the beginning of treatment. It could be that a model drawn from more experienced therapists working with more distressed couples may

yield different results regarding positive couple behavior. Despite these post-hoc analyses, it should be noted that the small sample size does not provide adequate power for the interpretation of the results. Therefore, a larger and more diverse therapist and client sample is needed to test this hypothesis.

Discussion

This study sought to identify how therapists' EFT interventions influenced husband-to-wife and wife-to-husband positive behaviors. It was the first known study to use third-party ratings of both EFT-specific interventions and couple interactive behaviors over 12 sessions of therapy. The results from this study showed little support for any of the *a priori* hypotheses.

Hypotheses 1 and 2: Management of Couples' Interaction and Managing Defensive Responses will be positively associated with husband-to-wife and wife-to-husband positive behaviors over time

High correlation between the *Managing the Couples' Interaction* and *Managing Defensive Responses* variables resulted in collapsing them into one variable (*Managing the Couple and Defenses*). Examination of the mean across time revealed that the therapist managing behavior was not consistent. At each point in time, the therapist behaviors fluctuated. Thus, a linear effect could not be found and hypotheses one and two were not supported. A plausible explanation for this finding may be that *Managing the Couples' Interaction* and *Managing Defensive Responses* are not interventions that target positive exchanges between partners in session. Instead, these interventions focus on reducing negative exchanges, as conflict may occur in the form of condescending, criticizing, and blaming (Denton et al., 2009). It is the job of the therapist to intervene when these comments are made and "catch the bullet" (Johnson, 2004, p. 152). Therefore, because these interventions are mainly a method for decreasing negative

interaction, it is not surprising that they are not directly linked to an increase in positive interaction.

Another possible explanation could be that the use of this intervention differs according to the couples' defensiveness and sidetracking. At different points in therapy, a therapist employs this intervention specific to each couple and thus it is not consistent in a linear fashion. In other words, as a therapist appropriately and consistently adapts interventions to meet the needs of clients, his/her focus on a specific intervention will fluctuate as well.

Hypothesis 3: Reframing the Problem in Terms of the Cycle will be positively associated with husband-to-wife and wife-to-husband positive behaviors over time

Hypothesis three was not supported; no linear effect of the therapist's intervention of *Reframing the Problems in Terms of the Cycle* on couple positive behaviors was found. Examination of the mean revealed that the therapist's use of this intervention decreased over time. Benson et al. (2012) described that a core skill of a couple's therapist is to change the couple's view of the presenting problem to be more objective, contextualized, and dyadic. This is typically a skill that is used in the earlier stages of EFT to deescalate negative interaction. This may explain why the intervention decreases over time. Furthermore, the intervention of *Reframing the Problems in Terms of the Cycle* is a therapist behavior that seeks to help validate an individual's internal experience and frame it in the context of their partner's behavior. This validation does not directly influence positive interaction, but over time may temper individuals' negative behavior toward their spouse.

An interesting trend was found in the husband model (Model D). The more the therapist reframed to the cycle positively predicted husband positive behaviors toward his wife when *Managing the Couples and Defenses* was removed. This suggests that the therapist managing the

couple's interaction and defensiveness could somehow mask the effects of reframing the problem in terms of the cycle, perhaps intruding on the husband's ability to exhibit positive behaviors toward his wife. When the therapist does not have to manage the couple at a high level (i.e., the couple is de-escalated), it may open up space for the husband to accept the therapist's reframes (validates his experience), which may soften his intensity and conflictual behavior toward his wife. As a result, he might display more positive behaviors to his partner. A larger sample size would allow for testing this conclusion.

Hypotheses 4 and 5: Working with Primary Emotion and Placing Emerging Emotions into the Cycle will be positively associated with husband-to-wife and wife-to-husband positive behaviors over time

High correlation between the *Working with Primary Emotion* and *Placing Emerging Emotions into the Cycle* variables resulted in collapsing them into one variable (*Use of Emotions and Emotions in the Cycle*). Again, examination of the mean revealed a decrease in the therapist's use of these interventions across time. As a result, hypotheses four and five were not supported. Statistically significant findings were identified between therapist use of emotions and emotions in the cycle and couple interaction, supporting the theory of EFT that emotions fuel the cycle (Johnson, 2004). However, the associations were negative. Both the wife-to-husband and husband-to-wife positive behaviors increased over time while the therapist working with primary emotion and placing emerging emotions back into the cycle decreased over time, thus establishing an inverse relationship.

Higher therapist skill of *Working with Primary Emotion* and *Placing Emerging Emotions into the Cycle* influenced both wife-to-husband and husband-to-wife positive behaviors to increase less sharply than when the therapist's used the same interventions less skillfully. These

findings could be interpreted in a number of ways. First, this could suggest that the therapist skillfully working with primary emotions and placing emerging emotions back into the cycle may not play an important role in increasing spousal positive behaviors toward partners. One possible explanation for this could be that when the therapist is using these interventions, it is actually helping to decrease the negative patterns that are occurring in the relationship.

According to Johnson (2004), “problems in relationships are maintained by the way interactions are organized and the dominant emotional experience of each partner in the relationship” (p. 52). Thus, working to deepen the primary emotions and placing the emerging emotions back into the cycle may serve to help soften and de-escalate each partner’s position and not increase positive behaviors. Likewise, these therapist interventions are a “within process”, meaning that the therapist is working with each partner individually and not eliciting interactions between the couple at that stage of the model. The therapist employs individual interventions, such as evocative responses, reflections, interpretations, and process replays (Denton et al., 2009) and uses the “RISSSC” acronym (“repeats, uses images, simple words, slow, soft voice, and uses client words”; Johnson, 2004) to help the individual soften. Only when new, softer positions are recognized does the therapist use enactments to create interaction between the couple.

Secondly, EFT theory suggests that therapist use of these interventions would actually decrease over time (as they did in this study) as the couple learns to process and explore emotion more effectively with each other without therapist intervention (i.e., the therapist models the skills). This could be occurring in the present study, as the therapist’s use of the intervention decreased and the positive behaviors from couples increased over time. This suggests that the therapist may have attuned to the couple’s use of emotion and allowed the couple to interact and

engage in positive behaviors. These findings are reflected in the prototypical plots in Figure 1 and 2.

Finally, the results may suggest that, while working with primary emotions is beneficial, increasing the use and intensity of the intervention may be too much for some clients. There may be a threshold or tipping point beyond which clients feel overwhelmed, exhausted, or annoyed. This may be especially true for men, causing them to shut down and withdraw from the therapeutic process (Greenman, Faller & Johnson, 2012).

Implications for Clinicians

This study highlights important implications for therapists. Perhaps one of the most meaningful interpretations from the findings of this study are that a therapist must be attuned to the couple and develop interventions that are appropriate to the couple's level of progress. In fact, if the therapist employs interventions without assessing the couple's developmental level, it may actually impede opportunities for couples to interact positively in session.

Additionally, while EFT does not overtly focus on teaching skills to couples, therapists must demonstrate certain skills in order to improve couple interaction. EFT works to soften and reduce 'negative sentiment override' (Hawkins, Carrère, & Gottman, 2002; Weiss, 1980) in order for space to be created for positive interactions. The therapist does not explicitly teach couples how to expand and process their emotions through a step-by-step process, but instead focuses on modeling skills and then guiding partners through a process that facilitates bonding. Ideally, this process is at least reflected upon in the 'consolidation' phase, but many clinicians may not focus on the specific processes in a "this is how you do it" manner. If the therapeutic process becomes stuck, clinicians may wish to explicitly state to couples what they expect EFT therapy to change and why, how it looks in session, and the effects of both positive and negative

exchanges on the attachment relationship. This psychoeducation may be important for ‘stuck’ couples, as they may not understand what the therapist is looking for and become frustrated in the process of EFT.

Limitations and Directions for Future Research

Measurement issues. Perhaps the most egregious limitation that affected the results and the interpretation of the study was the choice of measurement. The EFT-TFS and the IFIRS are distinctly separate measures studying two different constructs. They do not measure detailed micro-interactions in the therapy room and instead measure global domains of behavior. In order to sufficiently address the hypotheses, a sequential behavior analysis would have evaluated interactions that occurred as a result of the previous interaction. Future researchers should use sequential analytic procedures in order to understand how the therapist’s interventions affect the couple’s exchanges.

Secondly, the EFT-TFS and the IFIRS do not account for time or stage of therapy. This is particularly important in EFT, where theory states that couples progress through nine stages sequentially. Each stage requires a new set of therapist and client behaviors that build and develop from the previous skills learned. The nine steps and stages of EFT reflect a progression through therapy, and the therapist’s interventions shift and change in response to the couple’s behavior. Including more time points across therapy will help to elucidate these processes. Additionally, a ‘lag’ time can occur in therapy where the introduction of behaviors and the ability to practice them is out of sync. While a therapist moves onto step 5, the couple could still be in step 2. EFT theorists and supervisors may wish to help the therapist make necessary adjustments to the couples’ behavior, even if redundancy or skipping ahead is needed. As Johnson (2004) pointed out, the therapist must “follow the partners”, and “the drama of the

client's relationship" (p. 217). Similarly, the couple's behavior may actually drive the therapist's behavior. We did not test how the couples' behaviors (including as predictors) influenced the therapist's interventions, which future researchers may wish to examine.

Finally, including negative couple behaviors was beyond the scope of this study, and future research should include them in order to gain a better understanding of how EFT targets and influences negative couple processes in session.

Methodological issues. There are also a number of methodological issues. First, the procedure of beginning 10 minutes into a session and then only coding for 10 minutes is not a sound method for evaluating the overall process of therapy. The result is an examination of only a fraction of the overall sessions, which may not include key exchanges between the therapist and the couple. Furthermore, only using three time points limits the ability to identify and code all of the possible therapist interventions.

Additionally, a small sample size limited the ability to analyze both men and women's positive behaviors conjointly. Results from bivariate correlations revealed that husbands and wives positive behaviors are highly correlated and thus there was an overlap in their scores. This indicates a problem of non-interdependence, a key concern when evaluating couples in the same couple dyad.

Finally, during the analyses a decision was made to combine the 'managing the couples interaction' and the 'managing the couples' defensive responses' variables based upon a statistically high correlation. However, these variables are theoretically different. Managing the couples' interaction refers to therapists keeping the couples' interactions centered on attachment needs and secondary emotions, and refocuses the couple when they derail or sidetrack. Conversely, managing defensive responses refers to the therapist catching negative comments

and helping disentangle the attachment needs from partners caught in negative cycles. A larger sample size may help future researchers to examine these differences and the effects on couple outcomes.

Participants and therapists. Another major limitation was the small sample size, which limits the generalization of the findings across a broad population. In addition, because the sample was highly homogenous (Caucasian) and mildly distressed, the results may not hold true for more diverse settings and clientele. Future studies should include a larger sample with more diversity. In addition, future studies should examine our post-hoc analyses and control for the couple's level of distress level in order to understand how and which couples are influenced by therapist behavior.

There are several limitations regarding the therapists in the study. Gender effects could not be controlled for, and clients may have responded to the therapists' interventions differently. Additionally, the study used student therapists who were not experts in EFT. The scores on the EFT interventions were low on average (scored 1-3 on a scale of 1 to 5), which mean they occurred less frequently or were less skillfully employed. Higher scores may affect the client's behavior differently. Future studies should include therapist gender as a control variable, use expertly trained EFT therapists, and account for therapist fidelity.

Despite the clear limitations, this study moved beyond previous work and attempted to use in-session, third party rated therapist behaviors to predict in-session, third party coded couple behavior. Such interactional research, based on "real life" therapy sessions is crucial to develop a true understanding of how, why, and when change occurs in session.

Conclusion

This exploratory pilot study sought to help elucidate the process of EFT and how model-specific therapist interventions influenced couples' dyadic exchange of positive behaviors. Although there were many limitations, this study raised important considerations regarding the therapist's use of interventions. Specifically, working with primary emotions may not be a skill that directly impacts the couples' ability to interact positively in session, or there may be a threshold after which prolonged emotional experiences may limit engagement in therapy. Additionally, this study makes a case for a careful consideration of the expectation of a linear progression through EFT's steps and stages. Therefore, assessment and awareness of the couple's developmental stage and level of distress should prompt the therapist to conceptualize his/her interventions accordingly. Hopefully, this study will encourage additional further longitudinal process research in EFT that would add to the knowledge and understanding of such an important model of couples therapy.

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Table 1

Participant Demographics (N=15)

<u>Variable</u>	<u>Mean</u>	<u>Median</u>	<u>Mode</u>	<u>S.D.</u>	<u>Range</u>	<u>Minimum</u>	<u>Maximum</u>
Husband Age (in years)	36.13	31.00	24.00	12.33	38.00	24.00	62.00
Wife Age (in years)	32.40	28.00	22.00	11.82	32.00	21.00	53.00
Marriage Length (in years)	10.19	6.50	2.00	9.65	28.17	0.83	29.00
Number of Children	2.07	2.5	.00	1.94	6.00	0.00	6.00
	<u>Caucasian</u>	<u>Hispanic</u>	<u>Other</u>				
Husband Ethnicity	14	1					
Wife Ethnicity	14	1					
	<u><\$10,000</u>	<u>\$10K- \$24,999</u>	<u>\$25K- \$39,999</u>	<u>\$40K- \$69,999</u>	<u>\$70K- \$84,999</u>	<u>>\$85K</u>	
Annual Income	2	5	2	1	4	1	

Table 2

Dyadic Adjustment Scale pre- and post-scores by couple (N=15)

		<u>Mean</u>	<u>Median</u>	<u>Mode</u>	<u>S.D.</u>	<u>Range</u>	<u>Minimum</u>	<u>Maximum</u>
<u>Pre-scores</u>	<u>Wives</u>	90.07	84.00	59.00	20.14	63.00	59.00	122.00
<u>Post-scores</u>		108.00	109.00	100.00	19.98	74.00	76.00	150.00
<u>Pre-scores</u>	<u>Husbands</u>	96.07	92.00	88.00	14.92	48.00	78.00	126.00
<u>Post-scores</u>		106.08	106.00	69.00	20.32	80.00	69.00	149.00
	<u>Wife</u>		<u>Husband</u>		<u>Wife</u>	<u>Husband</u>		
<u>By Couple</u>		<u>Pre-scores</u>			<u>Post-scores</u>			
1		82.00	111.00		116.0	107.00		
2		96.00	94.00		126.0	122.00		
3		113.00	107.00		100.0	121.00		
4		122.00	126.00		150.0	149.00		
5		84.00	80.00		109.0	106.00		
6		121.00	88.00		121.0	102.00		
7		102.00	92.00		100.0	84.00		
8		114.00	124.00		118.0	120.00		
9		88.00	92.00		118.0	116.00		
10		68.00	98.00		99.00	90.00		
11		59.00	79.00		82.00	100.00		
12		75.00	95.00		76.00	69.00		
13		78.00	78.00					
14		72.00	89.00		89.00	93.00		
15		77.00	88.00					

Table 3

Descriptive statistics for Study Variables (n=15)

	M(SD)	Range	Minimum	Maximum
Therapist Behaviors				
Management of Couples and Defenses				
Time 1	2.59 (1.17)	4.00	1.00	5.00
Time 2	2.38 (0.97)	3.00	1.00	4.00
Time 3	2.69 (1.02)	3.00	1.00	4.00
Reframing Problems in Terms of the Cycle				
Time 1	3.68 (1.21)	3.50	1.50	5.00
Time 2	3.33 (1.26)	4.00	1.00	5.00
Time 3	3.21 (1.33)	4.00	1.00	5.00
Emotion and Emotion in Cycle				
Time 1	2.40 (0.64)	2.00	1.50	3.50
Time 2	2.30 (1.09)	4.00	1.00	5.00
Time 3	2.12 (0.94)	4.00	1.00	5.00
Wife-to-Husband Behaviors				
Time 1	16.60 (7.73)	25.00	5.00	30.00
Time 2	18.87 (8.33)	26.00	5.00	31.00
Time 3	19.80 (7.65)	24.00	6.00	30.00
Husband-to-Wife Behaviors				
Time 1	15.27 (7.39)	24.00	5.00	29.00
Time 2	17.87 (7.45)	25.00	6.00	31.00
Time 3	18.87 (7.14)	26.00	5.00	31.00

Table 4

Pearson Correlations: Wife-to-Husband Positive Behaviors and Husband-to-Wife Positive Behaviors– (N=15)

	Wife-to- Husband Positive Behaviors Time 1	Husband-to- Wife Positive Behaviors Time 1	Wife-to- Husband Positive Behaviors Time 2	Husband-to- Wife Positive Behaviors Time 2	Wife-to- Husband Positive Behaviors Time 3	Husband-to- Wife Positive Behaviors Time 3
Wife-to-Husband Positive Behaviors Time 1	_____					
Husband-to-Wife Positive Behaviors Time 1	.825**	_____				
Wife-to-Husband Positive Behaviors Time 2	.685**	.735**	_____			
Husband-to-Wife Positive Behaviors Time 2	.689**	.692**	.859	_____		
Wife-to-Husband Positive Behaviors Time 3	.539*	.281	.540*	.714**	_____	
Husband-to-Wife Positive Behaviors Time 3	.302	.131	.235	.441	.623*	_____

Note, * p<.05, **p<.01, ***p<.001.

Table 5

Pearson Correlations: Therapist Management and Wife-to-Husband Positive Behaviors– (N=15)

	Therapist Management Time 1	Wife-to-Husband Positive Behaviors Time 1	Therapist Management Time 2	Wife-to-Husband Positive Behaviors Time 2	Therapist Management Time 3	Wife-to-Husband Positive Behaviors Time 3
Therapist Management Time 1	—					
Wife-to-Husband Positive Behaviors Time 1	-.039	—				
Therapist Management Time 2	.471	-.357	—			
Wife-to-Husband Positive Behaviors Time 2	-.278	.685**	-.065	—		
Therapist Management Time 3	.401	-.045	.541*	.034	—	
Wife-to-Husband Positive Behaviors Time 3	-.189	.539*	-.502	.540*	-.333	—

Note, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 6

Pearson Correlations: Therapist Management and Husband-to-Wife Positive Behaviors– (N=15)

	Therapist Management Time 1	Husband-to-Wife Positive Behaviors Time 1	Therapist Management Time 2	Husband-to-Wife Positive Behaviors Time 2	Therapist Management Time 3	Husband-to-Wife Positive Behaviors Time 3
Therapist Management Time 1	—					
Husband-to-Wife Positive Behaviors Time 1	-.113	—				
Therapist Management Time 2	.471	-.004	—			
Husband-to-Wife Positive Behaviors Time 2	-.320	.692**	-.248	—		
Therapist Management Time 3	.401	.106	.541*	-.080	—	
Husband-to-Wife Positive Behaviors Time 3	-.342	.131	-.272	.441	-.154	—

Note, * p<.05, **p<.01, ***p<.001.

Table 7

Pearson Correlations: Therapist Use of Emotion and Wife-to-Husband Positive Behaviors– (N=15)

	Therapist Use of Emotion Time 1	Wife-to-Husband Positive Behaviors Time 1	Therapist Use of Emotion Time 2	Wife-to-Husband Positive Behaviors Time 2	Therapist Use of Emotion Time 3	Wife-to-Husband Positive Behaviors Time 3
Therapist Use of Emotion Time 1	—					
Wife-to-Husband Positive Behaviors Time 1	.158	—				
Therapist Use of Emotion Time 2	.429	-.173	—			
Wife-to-Husband Positive Behaviors Time 2	.135	.685**	.142	—		
Therapist Use of Emotion Time 3	.364	-.220	.736**	.099	—	
Wife-to-Husband Positive Behaviors Time 3	-.086	.539*	-.389	.540*	-.413	—

Note, * p<.05, **p<.01, ***p<.001.

Table 8

Pearson Correlations: Therapist Use of Emotion and Husband-to-Wife Positive Behaviors– (N=15)

	Therapist Use of Emotion Time 1	Husband-to-Wife Positive Behaviors Time 1	Therapist Use of Emotion Time 2	Husband-to-Wife Positive Behaviors Time 2	Therapist Use of Emotion Time 3	Husband-to-Wife Positive Behaviors Time 3
Therapist Use of Emotion Time 1	—					
Husband-to-Wife Positive Behaviors Time 1	.369	—				
Therapist Use of Emotion Time 2	.429	.294	—			
Husband-to-Wife Positive Behaviors Time 2	.057	.692**	-.087	—		
Therapist Use of Emotion Time 3	.364	.048	.736**	-.156	—	
Husband-to-Wife Positive Behaviors Time 3	-.422	.131	-.150	.441	-.181	—

Note, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 9

Pearson Correlations: Therapist Reframing to Cycle and Wife-to-Husband Positive Behaviors– (N=15)

	Therapist Reframing to Cycle Time 1	Wife-to-Husband Positive Behaviors Time 1	Therapist Reframing to Cycle Time 2	Wife-to-Husband Positive Behaviors Time 2	Therapist Reframing to Cycle Time 3	Wife-to-Husband Positive Behaviors Time 3
Therapist Reframing to Cycle Time 1	—					
Wife-to-Husband Positive Behaviors Time 1	-.071	—				
Therapist Reframing to Cycle Time 2	.427	.117	—			
Wife-to-Husband Positive Behaviors Time 2	.271	.685**	.266	—		
Therapist Reframing to Cycle Time 3	.134	-.174	.452	.275	—	
Wife-to-Husband Positive Behaviors Time 3	.033	.539*	-.262	.540*	-.226	—

Note, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 10

Pearson Correlations: Therapist Reframing to Cycle and Husband-to-Wife Positive Behaviors– (N=15)

	Therapist Reframing to Cycle Time 1	Husband-to-Wife Positive Behaviors Time 1	Therapist Reframing to Cycle Time 2	Husband-to-Wife Positive Behaviors Time 2	Therapist Reframing to Cycle Time 3	Husband-to-Wife Positive Behaviors Time 3
Therapist Reframing to Cycle Time 1	—					
Husband-to-Wife Positive Behaviors Time 1	.161	—				
Therapist Reframing to Cycle Time 2	.427	.353	—			
Husband-to-Wife Positive Behaviors Time 2	.089	.692**	.001	—		
Therapist Reframing to Cycle Time 3	.134	.151	.452	.168	—	
Husband-to-Wife Positive Behaviors Time 3	-.268	.131	-.304	.441	.085	—

Note, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 11

Pearson Correlations: Therapist Variables for all three time points (N=15)

	Therapist Management Time 1	Therapist Reframing to Cycle Time 1	Therapist Use of Emotion Time 1	Therapist Management Time 2	Therapist Reframing to Cycle Time 2	Therapist Use of Emotion Time 2	Therapist Management Time 3	Therapist Reframing to Cycle Time 3	Therapist Use of Emotion Time 3
Therapist Management Time 1	—								
Therapist Reframing to Cycle Time 1	.364	—							
Therapist Use of Emotion Time 1	.349	.632*	—						
Therapist Management Time 2	.471	.562*	.378	—					
Therapist Reframing to Cycle Time 2	.069	.427	.066	.224	—				
Therapist Use of Emotion Time 2	-.167	.504	.429	.585*	.549*	—			
Therapist Management Time 3	.401	.202	.415	.541*	.000	.332	—		
Therapist Reframing to Cycle Time 3	-.075	.134	-.162	.475	.452	.519*	.529*	—	
Therapist Use of Emotion Time 3	-.157	.350	.364	.397	.323	.736*	.646	.531*	—

Note, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 12

Taxonomy of Models for Wife Positive Behaviors toward Husband

	Parameter	Model A	Model B	Model C	Model D	Model E
<i>Df</i>		3	6	12	10	8
Fixed Effects						
Initial Status (π_{0i})	γ_{00}	18.42*** (1.67)	16.69*** (1.95)	10.48 (5.20)	11.19* (5.20)	18.12** (4.76)
Reframing the Problem in Terms of the Cycle	γ_{01}			-3.04 (1.31)	-2.82* (1.31)	-.39 (1.20)
Use of Emotions and Emotions in the Cycle				5.89 (2.24)	6.68** (1.99)	
Managing Couple and Defenses				1.28 (1.52)		
Rate of Change (π_{1i})	γ_{10}		.43† (.22)	2.11* (.79)	1.96* (.77)	.58 (.74)
Reframing the Problem in Terms of the Cycle	γ_{11}			.41 (.25)	.35 (.25)	-.05 (.20)
Use of Emotions and Emotions in the Cycle				-1.17** (.38)	-1.20** (.35)	
Managing Couple and Defenses				-.15 (.26)		
Random Effects						
Level 1						
Within-Person	σ^2_{ϵ}	26.58*** (6.86)	22.89*** (8.36)	11.08*** (4.74)	12.14*** (5.05)	21.79*** (8.02)
Level 2						
Initial Status	σ^2_0		37.84 (21.92)	58.68 (27.37)	54.24 (25.45)	39.92 (22.44)
Rate of change	σ^2_1		.04 (.38)	.37 (.35)	.33 (.35)	.07 (.38)
Cov.	σ^2_{10}		-.51 (2.17)	-2.48 (2.40)	-2.17 (2.34)	-.74 (2.19)
Deviance		298.68	295.01	278.78	279.42	294.31
Δ Deviance			1.67	16.23**	0.64	14.89**
AIC		304.68	307.01	302.78	299.42	310.31
BIC		310.10	317.85	324.19	317.26	324.77

Note, † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$, Model A: Unconditional Means; Model B: Unconditional Growth; Model C: Adding all three predictors; Model D: Removing Manage Couple and Defenses; Model E: Removing Emotions and Emotions in the Cycle

Table 13

Taxonomy of Models for Husband Positive Behaviors toward Wife

	Parameter	Model A	Model B	Model C	Model D	Model E
<i>Df</i>		3	6	12	10	8
Fixed Effects						
Initial Status (π_{0i})	γ_{00}	17.33*** (1.44)	15.43*** (1.95)	14.61** (5.09)	13.82** (5.09)	17.20** (4.97)
Reframing the Problem in Terms of the Cycle	γ_{01}			-1.61 (1.33)	-1.84 (1.32)	-.49 (1.26)
Use of Emotions and Emotions in the Cycle				3.79 (2.26)	3.15 (2.06)	
Managing Couple and Defenses				-1.21 (1.45)		
Rate of Change (π_{1i})	γ_{10}		0.48 (.29)	1.33 (.84)	1.32 (.80)	.43 (.83)
Reframing the Problem in Terms of the Cycle	γ_{11}			.43 (.26)	.46† (.25)	.01 (.22)
Use of Emotions and Emotions in the Cycle				-.93* (.41)	-.98 (.37)*	
Managing Couple and Defenses				.00 (.27)		
Random Effects						
Level 1						
Within-Person	σ^2_{ϵ}	32.29*** (8.34)	14.94*** (5.46)	14.48** (5.94)	14.99** (6.12)	13.89** (5.45)
Level 2						
Initial Status	σ^2_0		44.63 (21.33)	28.17 (17.17)	31.24 (18.10)	47.83 (23.85)
Rate of change	σ^2_1		.86 (.51)	.31 (.38)	.25 (.36)	.95 (.59)
Cov.	σ^2_{10}		-4.05 (2.80)	-1.33 (2.03)	-1.25 (2.01)	-4.52 (3.28)
Deviance		299.90	292.29	275.72	276.71	292.00
Δ Deviance			7.61	16.57**	0.99	15.29**
AIC		305.90	304.29	299.72	296.71	308.00
BIC		311.32	315.13	321.13	314.55	322.46

Note, † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$, Model A: Unconditional Means; Model B: Unconditional Growth; Model C: Adding all three predictors; Model D: Removing Manage Couple and Defenses; Model E: Removing Emotions and Emotions in the Cycle



Figure 1. Positive couple behaviors over time by couple. Solid line = Wife-to-Husband; Dashed Line = Husband-to-Wife.

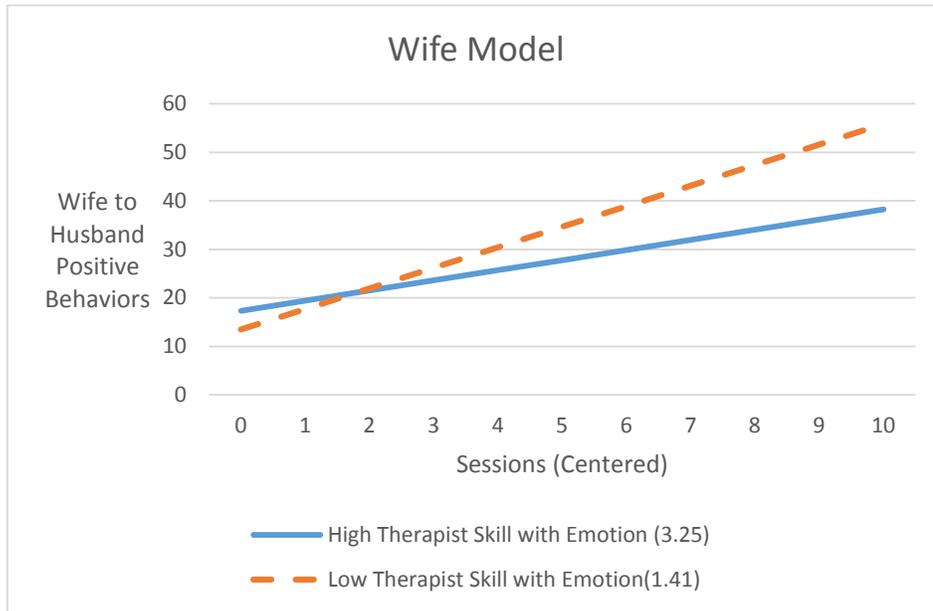


Figure 2. Prototypical plot demonstrating trajectory of wife-to-husband positive behaviors over time in relationship to therapist skill with emotion, one standard deviation above and below the mean

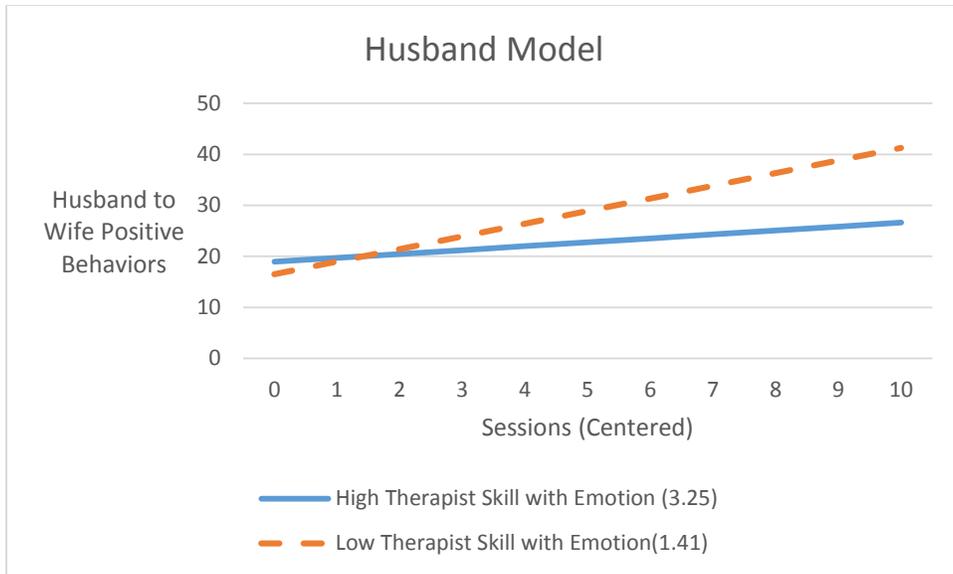


Figure 3. Prototypical plot demonstrating trajectory of husband-to-wife positive behaviors over time in relationship to therapist skill with emotion, one standard deviation above and below the mean

Appendix A: Emotion Focused Therapy-Therapist Fidelity Scale

Item	Description
1. Alliance	<p>Anchor Point 1: A poor demonstration of this skill would be manifested by a therapist behaving judgmentally or taking sides in a manner that was detrimental. The therapist may seem impatient, aloof, or have difficulty conveying warmth and confidence. Poor interpersonal skills, in general, on the part of the therapist would be part of inadequate performance of this skill.</p> <p>Anchor Point 3: A desired demonstration of this skill would include a display by the therapist of a satisfactory degree of warmth, concern, and genuineness through words, body language, and tone of voice. The therapist generally maintains a balance between partners. The therapist inquires of each partner if the therapist is correctly understanding them, responds to indications that either of the partners is dissatisfied with the therapist, accepts partner's experience, attempts to engage the couple in a collaborative effort, and debriefs as indicated.</p> <p>Anchor Point 5: In an exemplary demonstration of this skill the therapist would display optimal levels of warmth, concern, and genuineness and would have created a safe, nonblaming, and responsive environment for partners to experience and express feelings. Therapist demonstrates empathic understanding of partners' experience. Responds optimally to any expressed strain to the therapeutic alliance. Debriefing, if indicated, becomes part of the therapeutic experience.</p>
2. Validation	<p>Anchor Point 1: This skill is poorly demonstrated when the therapist: a) makes no validating comments about partners' emotions and interactional position, b) uses judgmental language or non-verbal behavior, c) validates one partner while invalidating the other.</p> <p>Anchor Point 3: This skill is adequately demonstrated when the therapist validates each partner's reactions and emotions without invalidating the other (e.g., "you fight for him because he is important to you"). Validating comments are made but may not be elaborated.</p> <p>Anchor Point 5: This skill is demonstrated in an exemplary manner when the therapist optimally validates each partner's emotions and interactional position without invalidating the other. Validating comments are exceptionally accurate, descriptive and may be connected to partners' emotions. The therapist may make the same validation in different ways - e.g., using partners' own words, using a</p>

	metaphor, etc.
3. Reframing the Problem in terms of the cycle	<p>Anchor Point 1: Skill Three is poorly manifested when the therapist refers to the cycle insufficiently. The therapist misses significant opportunities for linking questions and comments. The therapist may try to frame the problem as the cycle prematurely (e.g., before both partners feel validated) and, when the reframe is rejected, tries to "force" the reframe on them. The reframe offered may take only one partner's point of view and seem to blame the other partner.</p> <p>Anchor Point 3: Skill Three is adequately demonstrated when the therapist continually tracks and defines the process of interactions in terms of the cycle. Each partner's emotions and behaviors are linked to the emotions and behaviors of the other partner. The problem and content are reframed in terms of the cycle. There is a frequent use of linking questions, tracking, and reflection. If evidence surfaces that both partners are not yet ready to accept the systemic frame, therapist notices quickly and moves to restore the alliance. There is a balance of respecting the partners' point of view while also encouraging a new systemic view.</p> <p>Anchor Point 5: The exemplary demonstration of Skill 3 is manifest when the therapist continually tracks and defines the process of interaction in terms of the negative interaction cycle with each partner's emotions and behaviors optimally linked to those of the other partner. Reference to the cycle may be seamlessly interweaved into the session. If evidence surfaces that one or both partners are not yet ready to accept the systemic frame, therapist notices quickly and moves to restore safety, trust and rapport - continuing to validate each partner's version of events without retreating from continuing to gently offer the systemic reframe.</p>
4. Management of Couples' Interaction	<p>Anchor Point 1: In a poor demonstration of this skill, the couple's interaction derails the focus of the session and the therapist makes no attempt to intervene or makes grossly ineffectual attempts. If the couple is off focus, the therapist may not allow them to speak sufficiently to "feel heard" and interrupts them non-therapeutically. The therapist may cut off prematurely the therapeutic expression of secondary emotions. Poor session management would also be demonstrated if a therapist prematurely cuts off and redirects the couple to a new topic when they are productively discussing relevant aspects of the cycle, primary emotions, or attachment issues. No, or ineffectual, attempts are made to draw out silent partners.</p>

	<p>Anchor Point 3: In the desired demonstration of this skill the therapist appropriately intervenes if the couple's interaction derails the focus of the session through conflict, joking, changing the subject, etc. The therapist manages conflict by reflecting the process of the conflict and containing secondary emotions. Redirection is done in a respectful manner. The therapist appropriately allows continuation of interaction when the couple is discussing the cycle, primary emotions, or attachment issues. The therapist works at drawing out a silent partner.</p> <p>Anchor Point 5: Exemplary demonstration of this skill would be manifested by the therapist responding in an optimal manner if the couple's interaction derails the focus. The therapist skillfully keeps the session on focus while respecting secondary emotions. If the couple is productively discussing relevant aspects of the cycle, primary emotions, or attachment issues, the therapist skillfully mixes guiding comments with allowing the couple to continue interacting. Therapist is skilled at drawing out a silent partner and/or managing session time well.</p>
5. Processing Emotion	<p>Anchor Point 1: In a poor demonstration of this skill the therapist does not pursue emotions at all or the therapist begins to explore emotions but does not spend enough time doing so (or the therapist processes emotions but stays too long with one person before bringing in the partner).</p> <p>Anchor Point 3: In the desired demonstration of this skill the therapist appropriately uses emotion-focused interventions to explore and expand emotions and place them in the context of the negative interactional cycle and attachment. The therapist maintains an appropriate balance of time processing emotion between partners or acknowledges the lack thereof.</p> <p>Anchor Point 5: In the exemplary manifestation of this skill the therapist expertly helps the partners capture the essence of their emotional experience in a way that helps them engage with their emotion. The therapist will employ a wide variety of the interventions to elicit and process emotion. The therapist demonstrates exemplary timing in terms of how long to pursue emotions with one person before bringing in the partner.</p>
6. Working with Primary Emotion	<p>Anchor Point 1: This skill is poorly demonstrated when the therapist does not attempt to identify any attachment oriented primary emotions, focuses on primary emotions that are not part of the cycle, heightens destructive secondary emotions, etc.</p> <p>Anchor Point 3: This skill is adequately demonstrated when the therapist highlights, elucidates,</p>

	<p>expands, and/or heightens primary emotions that are part of the cycle, doing so through use of evocative questions, process replays, interpretations, and reflections. The therapist uses "RISSSC" ("repeats, uses images, simple words, slow, soft voice, uses client words") in a satisfactory manner (see Johnson, 2004 for a further description).</p> <p>Anchor Point 5: This skill is demonstrated in an exemplary manner when the therapist highlights, elucidates, expands, and heightens primary emotions that are part of the cycle through exemplary use of evocative questions, process replays, interpretations, and reflections.</p> <p>Uses "RISSSC" in an exemplary manner to prepare key enactments and engagement in change events.</p>
7. Placing Emerging Emotions into the cycle	<p>Anchor Point 1: This skill is poorly demonstrated when the therapist does not place emerging emotions into the cycle at all or inadequately does so.</p> <p>Anchor Point 3: This skill is adequately demonstrated when the therapist appropriately places emotion into the emerging cycle.</p> <p>Anchor Point 5: This skill is demonstrated in an exemplary manner when the therapist regularly and skillfully places emotion into the emerging cycle in an impactful manner.</p>
8. Therapeutic use of Enactments	<p>Anchor Point 1: This skill is poorly demonstrated when the therapist: (a) does not make any use of enactments in a session, (b) begins to set up enactment but then does not pursue it if a partner resists or (c) prematurely cuts off or interrupts a couple that is enacting around the cycle, primary emotions, and attachment issues.</p> <p>Anchor Point 3: This skill is adequately demonstrated when the therapist sets up enactments by adequately synthesizing the emotion first and then creating the enactment, following it, and processing it. The therapist adequately manages partner reluctance. If the couple is interacting around the cycle, primary emotions, and attachment issues, the therapist appropriately allows the interaction to continue - perhaps with some facilitation.</p> <p>Anchor Point 5: This skill is demonstrated in an exemplary manner when the therapist sets up enactments by optimally synthesizing the emotion first and then creating the enactment, following it,</p>

	<p>and processing it. The therapist deals optimally with partner reluctance and is able to use the reluctance therapeutically. If the couple is discussing aspects of the cycle, primary emotions, or attachment issues, the therapist skillfully mixes reflecting or guiding comments with allowing the couple to continue interacting on their own.</p>
<p>9. Managing Defensive Responses</p>	<p>Anchor Point 1: In the poor demonstration of this skill the therapist makes limited attempts to manage defensiveness. Poor mastery of this skill would also be demonstrated by a therapist disavowing secondary emotions of the defensive partner. For example, "what's up, you've said you want him to open up and now that he did you attacked him" would be an invalidation of the defensive partner's secondary emotion (anger) and a poor therapist response.</p> <p>Anchor Point 3: In the desired demonstration of this skill the therapist acknowledges secondary emotions and is able to help defensive partners process their responses in a productive way that creates safety for the partner who made himself/herself vulnerable. The therapist ties secondary emotions into the negative interactional cycle and attachment needs.</p> <p>Anchor Point 5: The therapist demonstrates optimal skills in validating secondary emotions of defensive partners and tying these emotions back into the negative interactional cycle and attachment needs. The therapist helps both parties understand the trigger in the discloser's words that resulted in defensiveness, while illuminating the meaning attached to those words by the defensive partner and their resulting response. The therapist helps both partners disentangle the attachment needs illuminated from the defensive behavior that perpetuates the cycle.</p>
<p>10. Maintaining Session Focus on Emotion, the Cycle, and Attachment Issues</p>	<p>Anchor Point 1: This skill is poorly demonstrated when: (a) the session has excessive focus on content, (b) the session wanders aimlessly under direction of the couple, (c) there is excessive social conversation, (d) therapists propose and promote "solutions" to the couple's problems, (e) therapists talk excessively about themselves and (t) therapists "lecture" about EFT concepts. There is little focus on emotion, the cycle, or attachment issues.</p> <p>Anchor Point 3: This skill is demonstrated in a desired manner when the therapist generally maintains a focus on emotion, the negative interactional cycle, and attachment even if the clients derail the focus at times and the session "drifts" off such focus. There is a mix of focus on emotion, the cycle, and attachment issues with times of lack of this focus. There is an appropriate amount and</p>

	<p>type of social conversation and/or self-revelation in the session.</p> <p>Anchor Point 5: This skill is demonstrated in an optimal manner when the therapist sets the focus for the session and maintains it. If the couple sidetracks the session, the therapist redirects back to intended focus with minimal "drift" off focus and without alienating the couple. Most of the session is "on focus." The therapist weaves the maintaining of focus seamlessly into the course of the session and with validation of the partners.</p>
<p>11. Framing Cycle/Problems/Emotion in terms of Attachment Needs and Fears</p>	<p>Anchor Point 1: This skill is poorly demonstrated when the therapist: (a) does not identify any attachment needs and/or fears, (b) does not tie attachment needs and fears back into the negative interaction cycle with the accompanying primary and secondary emotions.</p> <p>Anchor Point 3: This skill is adequately demonstrated when the therapist, at times during the session, identifies and relates attachment needs and/or fears to the negative interaction cycle, presenting problems, and primary emotions.</p> <p>Anchor Point 5: This skill is demonstrated in an exemplary manner when the therapist regularly identifies attachment needs and/or fears and weaves these into the cycle, presenting problems, and primary emotions in a seamless manner.</p>
<p>12. Following the Steps and Stages of EFT</p>	<p>Anchor Point 1: Poor demonstration of this skill would be if the therapists left outsteps/stages and has skipped ahead without proper preparation of the earlier work. For example, trying to elicit vulnerable emotions from one partner while the other partner is demonstrating hostility (which the therapist is not acknowledging) would be a poor demonstration of this skill.</p> <p>Anchor Point 3: This skill is demonstrated in a desirable fashion when the therapist generally is making efforts to progress through and accomplish the goals of each step/stage in their proper sequence. When couples make a "step backward" in therapy, therapists may display some indecisiveness in guiding the session as they struggle to adjust.</p> <p>Anchor Point 5: This skill is demonstrated in an optimal fashion when the therapist has optimally progressed through and accomplished the goals of each step/stage and uses the steps as a guide to focus the therapy sessions. While generally moving forward in therapy, the therapist is also alert to times where there is a need to "back up" and re-trace steps worked through previously and does so in</p>

	a seamless manner.
13. Consolidation of Change and Development of New Narratives	<p>Anchor Point 1: This skill is poorly demonstrated when there is no or inadequate discussion. Emotion of changes that have occurred and the new relationship between them (or highlighting areas of no change). The partners describe positive changes, which have occurred without any acknowledgement on the part of the therapist supporting these changes.</p> <p>Anchor Point 3: This skill is adequately demonstrated when the therapist satisfactorily highlights positive change and new responses. The therapist satisfactorily helps partners integrate their new view of the relationship, new attributions, and new narratives.</p> <p>Anchor Point 5: This skill is demonstrated in an exemplary manner when the therapist optimally highlights positive change and new responses. The therapist optimally helps partners integrate their new view of the relationship, new attributions, and new narratives.</p>

Appendix B. Iowa Family Coding-Dyadic Scales

Dyadic Scales	
Item	Description
HS: Hostility	This scale measures the focal's anger, frustration, criticism, contempt, etc. toward another focal. VA, AT, CT, AC, EH, and RH are all a part of HS; HS also includes behaviors that are not a part of the other scales including shouting, more specific criticism, frustrated sighs, menacing or threatening body postures, etc. There is a lot that fits into this scale. This is a high relevance of intensity scale.
VA: Verbal Attack	This scale measures global, overarching criticism of the other person's general being or characteristics. It includes insults and name calling, criticism of the other's nature such as, "You are such a jerk," and criticism of their continuing behavior such as, "You never listen," or "You always think that the world revolves around you." The statement must be global and ongoing. For example, "You never listen to me," would not count because it is specific to the speaker. This is a high relevance of intensity scale.
AT: Physical Attack	This scale measures the focal's invasive, harmful, or irritating physical contact with another focal and includes hitting, kicking, flicking, poking, shoving, etc. Throwing something at another interactor is not coded under AT because there is not contact; however, hitting someone with an object would be coded under AT. This is a high relevance of intensity scale.
CT: Contempt	This scale measures behaviors that put the other interactor down or onto a lower level. It includes eye rolling, exasperated sighs, mocking, and statements and facial expressions that indicate that the focal believes the other interactor to be incompetent or below them in some way. This is a high relevance of intensity scale.
AC: Angry Coercion	This scale measures when the focal is trying to change a focal's behavior, opinion, etc. through hostile behaviors. This scale includes manipulative behaviors that put the other down in order to exert dominance or that attack them in a hostile way to get them to change. This is a high relevance of intensity scale.
EH: Escalate Hostility	This scale measures how often the focal follows one of their own hostile behaviors with another hostile behavior. This is a low relevance of intensity scale.
RH: Reciprocate Hostility	This scale measures how often the focal responds to the other interactor's hostility with their own hostility. This is a low relevance of intensity scale.

DO: Dominance	This scale measures both psychological and behavioral control by looking at how often the focal attempts to and is successful at changing another interactor's opinions and/or actions. Behaviors included in this scale are asking questions, making requests or demands, interrupting, and (at a low level) expressing or exerting an opinion that has not been specifically solicited by another interactor. It is rare for someone to score a 1 on this scale.
LM: Lecture/Moralize	This scale measures how often the focal expresses his/her views in a superior wisdom type way by telling the other how things really are or should be or by telling the other interactor who he/she should or should not behave. These behaviors close off rather than invite open communication. This is a moderate relevance of intensity scale.
IT: Interrogation	This scale measures questions posed by the focal that are pointed or try to prove a point rather than inviting open discussion. This is a moderate relevance of intensity scale.
DE: Denial	This scale measures how often the focal attempts to defend himself/herself by placing blame on someone/something else, denying that the situation or problem exists, denying that they have a part in the problem, or making excuses for their behavior in an attempt to communicate to the other interactor that they have no part in the problem or that it is not their fault. This is a moderate relevance of intensity scale.
WM: Warmth/Support	This scale measures behaviors that communicate warmth, appreciation, support, and caring toward another interactor. Statements expressing empathy (such as, "that must have been very difficult for you") and physically affectionate behaviors were the most common behaviors that we saw in the EFT cases. Praise, pet names, and expressions of liking for the other or their idea or behavior are other typical examples that we see. This is a high relevance of intensity scale.
ED: Endearment	This scale is basically the opposite of VA. Here we are measuring global and overarching praise or approval of the other. Using pet names, and positive statements about how or who the other person is and about what they always or never do are coded here. This is a high relevance of intensity scale.
AF: Physical Affection	This scale measures positive, warm physical contact offered by the focal such as holding or stroking hands, rubbing the other's leg, hugging, kissing, high-fives, etc. One note here: we usually code only from the waist up because some of the families that we code in the Flourishing Families project sit behind tables. However, because we could see the full body of all of the focals in the EFT cases (minus the therapist if he/she left their box) we coded the full body in both this scale and AT. This is a high

	relevance of intensity scale.
EW: Escalate Warmth/Support	This scale measures how often the focal follows one of their own warm or supportive behaviors with another warm or supportive behavior. This could be praise followed by a hug, or hand holding followed by hand rubbing (which was the most common example we saw in the EFT tasks). This is a low relevance of intensity scale.
RW: Reciprocate Warmth/Support	This scale measures how often the focal responds to the other interactor's warm or supportive behaviors with warm or supportive behaviors. The most common form of RW that we saw was reciprocation of AF such as accepting their spouse's hand or back and forth hand caressing. This is a low relevance of intensity scale.
AR: Assertiveness	This scale measures how well the focal expresses his/her opinion in a confident, patient (being respectful in regards to the opinions of the other interactor), and positive or neutral manner. In order to score above a 1, a focal had to display at least one "full package" meaning that the statement was stated in an open, confident, positive/neutral way and was accompanied by eye contact from the focal delivering the message. This is a moderate relevance of intensity scale.
LR: Listener/Responsiveness	This scale measures how well the focal demonstrates to the other that they are hearing what the other person has to say. It conveys a sense that the other focal is being heard and is encouraged to continue. The main behaviors that we look at include attending (looking at the other focal in an open and inviting way), backchannels (facial expressions—does not include negative or critical expressions—and nodding are the most common backchannels we observe), and assents (may be brief—"uh-huh," "yeah," "ok," etc.—or echos and asking for clarification in an encouraging way that demonstrates that they were listening to the focal). One may not score above a 5 on this scale unless both attending and backchannels/assents are present. This is a low relevance of intensity scale.
CO: Communication	This scale measures how well the focal expresses his/her opinion, feelings, etc. and gives clarification on their own views as well as how well they seek clarification from, solicit, or in other ways demonstrate that they are considering the other person's point of view. Parallel communication that does not include aspects of give and take cannot score above a 5. This is a moderate relevance of intensity scale.
PR: Prosocial	This scale measures the focal's behaviors that are helpful, cooperative, mature, and sympathetic in nature. A focal must display "active" behaviors to score a 5 or higher. Active behaviors include WM, expressions of apology or thanks, and a willingness to change their behaviors for the other person. Inactive behaviors include LR, soliciting the other person's view, and answering questions posed by the focal or being cooperative with the other interactor in other small ways. This is a moderate relevance of

	intensity scale.
AN: Antisocial	This scale measures behaviors that are immature, rude, insensitive, uncooperative, disruptive, etc. It includes anything coded in HS as well as other behaviors that fit the previous descriptors such as bragging, making unreasonable demands of the other, being unduly dependent on the other, being invalidating, etc. This is a moderate relevance of intensity scale.
AV: Avoidant	This scale measures times when the focal is physically avoidant of the other interactor. It includes any time when the focal moves from a neutral position to one that is more avoidant. This includes looking away, turning their head or body away, pulling away from the other person, etc. that demonstrates that they are trying to avoid physical contact with the other person (withdrawal, evasion, self-protection, etc.). This scale does not include verbal avoidance of behaviors or future interaction. This is a moderate relevance of intensity scale.