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A Longitudinal View of the Association Between Therapist Behaviors and Couples' In-Session Process: An Observational Pilot Study of Emotionally Focused Couples Therapy

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ABSTRACT

A Longitudinal View of the Association between Therapist Behaviors and Couples' In-Session Process: An Observational Pilot Study of Emotionally Focused Couples Therapy

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This is a longitudinal couples therapy process study using coded data from eleven couples to identify which therapist behaviors (warmth, listener responsiveness, communication, dominance) influenced positive couples exchanges (warmth and listener responsiveness) over time in Emotionally Focused Couples Therapy (EFT). 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 variables of therapist warmth, listener responsiveness, communication, and dominance with couple listener responsiveness. Where client warmth was an outcome variable, the only significant relationship was between therapist warmth toward husband and husband warmth toward wife. Findings demonstrated that 62.9% of the variance in husband warmth toward wife was accounted for by therapist warmth to husband across time in therapy. Specifically, therapist warmth toward husband was significantly and positively related to husband warmth toward wife over time in therapy. Clinical implications and directions for future research are discussed.

Keywords: couples therapy, process research, therapist warmth, husband warmth, EFT

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Table of Contents

Abstract ii

Acknowledgements iii

List of Tables vi

List of Figures viii

Introduction 1

Literature Review 2

Attachment Theory 2

Couple Distress 4

Couples Therapy as a Treatment for Distress 5

History of Marital Research 7

Process Research 8

Existing process research 9

Therapeutic alliance 9

Couples interaction and interventions 11

Model-specific process research 13

EFT process research 14

Process Research and Observational Coding 16

Purpose Statement 17

Research Question 17

Methodology 18

Participants 18

Procedure 19

Instruments....20
The Iowa Family Interaction Rating Scales....20
Procedural training of observational coders....21
Husband and wife warmth/support....22
Therapist warmth/support....23
Therapist dominance....23
Listener responsiveness....24
Therapist communication....24
Analytic Strategy....25
Results....26
Preliminary Analyses....26
Wife Listener Responsiveness....26
Husband Listener Responsiveness....26
Wife Warmth....27
Husband Warmth....28
Discussion....29
Clinical Implications....32
Directions for Future Research....34
Limitations....35
Conclusion....36
References....37

List of Tables

Table 1. Descriptive Statistics for study variables 56

Table 2. Pearson Correlations: Therapist Warmth to Wife and Wife Warmth to Husband 57

Table 3. Pearson Correlations: Therapist Warmth to Husband and Husband Warmth to Wife ... 58

Table 4. Pearson Correlations: Therapist Listener Responsiveness to Wife and Wife Warmth to Husband 59

Table 5. Pearson Correlations: Therapist Listener Responsiveness to Husband and Husband Warmth to Wife 60

Table 6. Pearson Correlations: Therapist Communication to Wife and Wife Warmth to Husband 61

Table 7. Pearson Correlations: Therapist Communication to Husband and Husband Warmth to Wife 62

Table 8. Pearson Correlations: Therapist Dominance to Wife and Wife Warmth to Husband ... 63

Table 9. Pearson Correlations: Therapist Dominance to Husband and Husband Warmth to Wife 64

Table 10. Pearson Correlations: Therapist Warmth to Wife and Wife Listener Responsiveness to Husband 65

Table 11. Pearson Correlations: Therapist Warmth to Husband and Husband Listener Responsiveness to Wife 66

Table 12. Pearson Correlations: Therapist Listener Responsiveness to Wife and Wife Listener Responsiveness to Husband 67

Table 13. Pearson Correlations: Therapist Listener Responsiveness to Husband and Husband Listener Responsiveness to Wife 68

Table 14. Pearson Correlations: Therapist Communication to Wife and Wife Listener Responsiveness to Husband 69

Table 15. Pearson Correlations: Therapist Communication to Husband and Husband Listener Responsiveness to Wife 70

Table 16. Pearson Correlations: Therapist Dominance to Wife and Wife Listener Responsiveness to Husband 71

Table 17. Pearson Correlations: Therapist Dominance to Husband and Husband Listener Responsiveness to Wife 72

Table 18. Pearson Correlations: Wife Predictor Variables 73

Table 19. Pearson Correlations: Husband Predictor Variables 74

Table 20. Taxonomy of Models for Wife Listener Responsiveness Toward Husband 75

Table 21. Taxonomy of Models for Husband Listener Responsiveness Toward Wife 76

Table 22. Taxonomy of Models for Wife Warmth Toward Husband 77

Table 23. Taxonomy of Models for Husband Warmth Toward Wife 78

List of Figures

Figure 1. Prototypical plot demonstrating trajectory of husband warmth toward wife over time in relationship to therapist warmth.....79

Introduction

Marital distress is a common phenomenon (Snyder, Heyman & Haynes, 2005), and is associated with a host of psychological and physiological problems (Lebow, Chambers, Christensen, & Johnson, 2012; South, Krueger & Iacono, 2011; Whisman, 2013; Whisman, 2007). In many cases, relationship therapy is necessary to treat underlying causes of distress (Hoyt & Gurman, 2012). Knowing how to effectively treat marital discord is a topic of concern for both clinicians and researchers (Heyman, 2001). One of the ways to make research on marital distress more relevant and helpful for clinicians is through the study of specific interactions in the therapy room, specifically those which lead to change (Oka & Whiting, 2013). This type of inquiry has been called process research (Greenman & Johnson, 2013; Oka & Whiting; Pinsof & Wynne, 2000).

The current process research study is a preliminary exploration of how specific therapist behaviors influence in-session couple behaviors in therapy over time. The underlying theoretical base for this process study is attachment theory; specifically, the focus is on the behaviors that are central to the attachment-based model of Emotionally Focused Therapy (EFT) (Johnson, 2004). Therefore, the purpose of this longitudinal process study, in which variables are drawn from observational coding data of EFT therapy across three time points in therapy, is to identify which therapist behaviors predict in-session positive attachment behaviors for couples over time. Because therapist warmth, listener responsiveness, communication and structuring (dominance in this study) are variables often associated with positive client change in the literature (Ackerman & Hilsenroth, 2003; Johnson & Talitman, 1997; Tilley & Palmer, 2012), those were the independent variables examined in this study. The outcome variables of husband warmth toward wife, wife warmth toward husband, husband listener responsiveness toward wife, and

wife listener responsiveness toward husband were used because these are linked with desired couple behaviors in therapy, often linked with positive change (Johnson; Tilley and Palmer; Zuccarini, Johnson, Dalgleish & Makinen, 2013; Mitchell, et al., 2008).

Literature Review

Research has shown that empathic nurturing responses are crucial for relationship development and change (Greenberg, Ford, Alden & Johnson, 1993; Johnson, 2003). Likewise, warm, empathic responses are key to secure attachments in relationships (Johnson, 2004). Attachment is considered an intrinsic aspect of all interpersonal processes, including psychotherapy (Davila & Levy, 2006). Attachment theory has roots in the work of John Bowlby (1969). After working with children in hospital settings, he proposed that pathology develops when human beings are deprived of consistent responsiveness by a caregiver. Bowlby (1988) maintained that the need to attach to another human being is innate, existing "from cradle to grave," (Bowlby, 1988, p. 62), and is an instinctual drive for adults as well as for infants and children.

Bowlby's theories were expanded upon by Mary Salter Ainsworth and colleagues (Ainsworth, Blehar, Waters & Wall, 1978). In the seminal "Strange Situation" experiments, researchers observed and documented a finite series of attachment responses demonstrated by babies upon the return of their attachment figures after they had been gone for a period of time. Ainsworth organized the babies' responses into a set of three attachment styles: secure, avoidant and ambivalent. Later, researchers began applying the same attachment principles to adult relationships (Hazan & Shaver, 1987).

Attachment relationships are defined by four main characteristics: 1) maintaining proximity to a relationship partner; 2) using that partner as a safe haven for comfort in the face of

threat; 3) using that partner as a safe haven from which to explore the world; and 4) experiencing distress when that partner is unavailable (Selcuk, Zayas, & Hazan, 2010, p. 260). Attachment styles are consistently observed in individuals responding in close attachment relationships and are referred to in current literature as anxious, avoidant, a combination of both anxious and avoidant, and secure (Hazan & Shaver, 1987). Anxious attachment is characterized by clingy, demanding behavior in response to relationship distress; avoidant attachment is characterized by cold, dismissing behavior, and secure attachment is characterized by the ability to tolerate relationship distress and an ability to increase independence and exploration in the absence of one's attachment partner (Hazan & Shaver).

Researchers of adult attachment bonds have concluded that couples, or pair bonds, (i.e. marital relationships), offer the same type of felt security as earlier attachment bonds (Hazan & Shaver, 1987). The component of a sexual mating system is included in significant romantic attachment relationships, and the interactions are reciprocal, with both members of the dyad acting as caregivers (Selcuk, Zayas & Hazan, 2010). Attachment in pair bonded relationships is defined by a reciprocal interaction of responsiveness and engagement in moments of need (Johnson, 2005). Indeed, research has supported the theory that when individuals have attachment partners who are accessible in moments of high need, they experience lower levels of distress and higher levels of mental resiliency (Mikulincer & Shaver, 2007). Attachment theory is relevant to this study because the therapy employed is founded on principles of attachment theory (Johnson, 2004), and as such guided the choice of study variables in dyadic interactions.

Couple Distress

Relationship distress with a spouse or intimate partner is identified in the DSM 5 and is indicative of patterns of interaction in the relationship that are causing clinically significant impairment in cognitive, affective or behavioral functioning in one or more members of the dyad (American Psychiatric Association, 2013). Most marriages will experience some type of relationship distress over the course of the relationship (Morrill, et al., 2011). General couple distress is frequently encountered by therapists and is considered to be a problem among 20% of all married couples at any given time (Bradbury, Fincham, & Beach, 2000; Lebow, et al., 2012).

Couple distress has been linked to various mental and physiological health problems (Burman & Margolin, 1992; Lebow, et al., 2012; Whisman, 2013). Specifically, marital conflict has direct effects on cardiovascular, endocrine, immune, neurosensory and other physiological systems (Kiecolt-Glaser, 1993; Kiecolt-Glaser & Newton, 2001). Occurrences of both internalizing and externalizing psychopathologies are also linked with lower marital adjustment (South, Krueger & Iacono, 2011). In a population-based sample of 2,677 married or cohabiting adults, researchers (Whisman & Uebelacker, 2006) identified an association between couple discord and greater impairment in social and work relationships, greater general distress, poorer perceived health, greater psychological distress, and greater suicidal ideation. Some of the strongest associations link marital distress with generalized anxiety disorder, alcohol use disorder and bipolar disorder (Whisman, 2013; Whisman, 2007). Marital distress has also been linked to greater mental health care utilization (Sandberg, Miller, Harper, Robila & Davey, 2009; Schonbrun & Whisman, 2010).

One study reported that for women, greater distress is associated with an increased risk for metabolic syndrome (Whisman, Uebelacker & Settles, 2010). Other authors point out that

marital strain is associated with a decline in physical health over the life span (Umberson, Williams, Powers, Liu, & Needham, 2006). Some research has indicated that divorced individuals or those who have never married actually fare better in terms of general psychological health that those in distressed marriages (Williams, 2003), reinforcing the notion that marital distress can have deleterious health consequences.

Marital distress can also adversely affect children (Emery, 1982; Buehler, et al., 1997; Gottman & Notarius, 2002). The recent release of the DSM 5 included a category for children requiring clinical attention as a direct result of parental relationship discord (American Psychiatric Association, 2013). Marital conflict has been associated with higher incidence of internalizing and externalizing problems for children as well as academic disruption (Shelton & Harold, 2007). Children frequently interpret such conflict as a source of potential threat to self and the family, and experience emotional dysregulation as a result (Buehler, Lange & Franck, 2007; Siffert & Schwarz, 2011). A recently published study measuring children's cortisol responses to witnessing interparental conflict asserts that children's regulatory functions can be affected as a result, which might be an important link to resulting psychological problems (Koss, et al., 2013). In general, relationship conflict seems to negatively influence children's coping skills, as well as partners in the relationship (Siffert & Schwarz). Because marital distress is costly in terms of human suffering and money, many groups (i.e. policy makers, third party providers, clinicians, clergy, and family), are invested in research that can address this problem.

Couples Therapy as a Treatment for Distress

Although marital distress often drives couples into therapy, there is a paucity of research related to the specific variables involved, and at what level of distress they might engage in therapy. Available research suggests that wives are more likely to seek therapy than husbands,

and when men do seek marital therapy, it is usually related to sexual issues (Doss, Atkins & Christensen, 2003). One study of 147 couples found that the most frequent reasons couples identify for seeking therapy are communication problems and lack of emotional affection (Doss, Simpson, & Christensen, 2004). In another study of couples, the most common presenting marital problem was communication, regardless of the length of marriage (Miller, Yorgason, Sandberg & White, 2003).

Couples therapy is an important component of health services (Halford & Snyder, 2012) and has been demonstrated as an effective treatment option for decreasing couple distress, with about 70% of couples overall reporting positive change (Lebow, et al., 2012). Studies also demonstrate effectiveness in the treatment of specific relational sexual problems, physical aggression, and infidelity (Snyder, Castellani, & Whisman, 2005). In a meta-analysis of wait-listed couples who were kept from accessing treatment for a period of time while an efficacy study was being conducted, the researchers (Baucom, Hahlweg, & Kuschel, 2003) found that couples made no improvement on their own during the wait-listed time, suggesting that therapeutic intervention can be effective in the resolution of couple distress. A review of the randomized controlled trials of couples therapy concludes that, "every RCT of couple therapy has found treatment superior to no treatment," (Gurman, 2011, p. 282). Empirically supported marital therapy is also associated with reducing costs of divorce in terms of both public expenses and divorce-related health-care expenses (Caldwell, Woolley & Caldwell, 2009). Despite demonstrating effectiveness, many questions about change process remain unanswered in couple therapy. Specifically, very little is known about the mechanisms that lead to change in couples therapy despite decades of research (Gurman).

History of Marital Research

Marriage and family therapy research over time has confirmed both theory and the effectiveness of various models and techniques (Gottman & Notarius, 2002; Heyman, 2001). Nevertheless, the discipline of marriage and family therapy has historically contained a disconnect between researcher and clinician in a culture where practitioners offering training programs may be charismatic figures attracting follower clinicians, but operating without empirical evidence (Crane, Wampler, Sprenkle, Sandberg & Hovestadt, 2002). The earliest published couple research relied on self-report methods for measuring personality traits (Terman, Buttenweiser, Ferguson, Johnson & Wilson, 1938). Since this time, decades of marital research established findings based on paper and pencil self-report measures to explain marital functioning, often in terms of stability and satisfaction. In addition, researchers began to include spousal perceptions to gain a more accurate picture of marital phenomena (Gottman & Notarius). As an interactional perspective of family systems began to develop (Bateson, Jackson, Haley & Weakland, 1956), and observable patterns became of interest to family therapy interventionists, observational methods focused on process were developed and subsequently refined (Gottman & Notarius). Although process research began with the study of actual family interactions, the form and nature of research became more standardized and distant from clinical practice, and therefore less relevant to clinicians (Pinsof & Wynne, 2000). This clinician research gap is frequently mentioned in the literature as an ongoing concern, and a scientist-practitioner model has been encouraged to create research-informed clinicians who will be accountable to the profession by learning and applying effective treatments (Karam & Sprenkle, 2010; Oka & Whiting, 2013). Yet, for research to be relevant to practitioners, it needs to reflect what occurs in

clinical practice. The clinical relevancy of process research is appealing to both researchers and clinicians (Oka & Whiting).

Process Research

Historically, psychotherapy research has been divided into two categories: process and outcome (Pinsof & Wynne, 2000). Despite the fact that couple therapy efficacy has been established, there are still unanswered questions related to specific change mechanisms in the therapy process (Christensen, Baucom, Vu & Stanton, 2005). Process research is central to the identification of specific change mechanisms in marital and family therapy (Greenberg, 1986; Greenberg, 1991; Greenman & Johnson, 2013). It also provides a foundation from which to build clinical models and train clinicians (Alexander, Newell, Robbins & Turner, 1995). Process research allows for a study of interdependencies in relationships (Gottman & Notarius, 2002; Madhyastha, Hamaker & Gottman, 2011), which is central to the family systems basis of marriage and family therapy (Oka & Whiting, 2013; Pinsof, 1989). Process research examines the process of therapy itself in addition to input or output variables, and is also referred to as observational research or interactional research (Oka & Whiting). Kazdin noted (2009), "…it is important to understand key mechanisms of change in order to bring order and parsimony to treatment, optimize change, optimize the generality of treatment effects from research to practice, and identify moderators of treatment," (p. 418).

Process research focuses on what goes on in the therapy room between the client and therapist (Pinsof & Wynne, 2000). This type of research advances therapy from merely an art form to a science with methodological rigor and replicability (Gottman & Notarius, 2002; Heyman, 2001). Researchers have drawn attention to the need for more process change research in order to better understand how and when marital and family therapy works (Greenberg, 1991;

Heatherington, Friedlander & Greenberg, 2005). Process research is also crucial to developing efficacious treatment models (Orlinsky, Ronnestad & Willutzki, 2004), and the strengthening of existing models through the identification of unique change mechanisms (Sexton, et al., 2011; Woolley, Butler & Wampler, 2000).

Existing process research. In individual psychotherapy, process research has identified specific ingredients which facilitate second-order change (Hanna & Ritchie, 1995). Some of the earliest documented process research included studies about how creating new experiences for clients in session might create more change than cognition alone (Clarke & Greenberg, 1986; Goldfried & Greenberg, 1990). One powerful predictor of therapeutic change is patient involvement (O'Malley, Suh & Strupp, 1983; Reandeau & Wampold, 1991). Other igredients intrinsic to change are therapeutic alliance (Ackerman & Hilsenroth, 2003; Reandeau & Wampold, 1991), client motivation (Higginson, Mansell, & Wood, 2010; Luborsky, Crits-Cristoph, Mintz, & Auerbach, 1986), and the willingness to experience anxiety (Hanna & Ritchie, 1995). More recently, non-verbal synchrony has been linked to a higher quality therapeutic relationship and therapy outcome (Ramseyer & Tschacher, 2011). In a process research of group psychotherapy for drug use, research confirmed the importance of therapeutic alliance for change but disconfirmed self-disclosure as an important change variable (Crits-Cristoph, Johnson, Connolly Gibbons, Gallop, 2013).

Therapeutic alliance. The element associated with change in process research most frequently cited in the literature across all therapy modalities is the therapeutic alliance, which is the collaboration between therapist and client in order to connect emotionally and accomplish goals (Thomas, Werner-Wilson, & Murphy, 2005). Therapeutic alliance is a construct that has largely developed out of Carl Roger's seminal work suggesting that therapist warmth through

unconditional positive regard and empathic understanding are necessary catalysts for therapeutic change (Farber & Doolin, 2011; Rogers, 1957). Establishing therapeutic alliance is a fundamental skill as well as the very first step in most therapy models (Ackerman & Hilsenroth, 2003). Early examination of the alliance in couple and family work acknowledged its necessity and complexity in couple and family therapy (Pinsof & Catherall, 1986; Robbins,Turner, Alexander, & Perez, 2003; Friedlander, Heatherington, Escudero, & Diamond, 2011). Alliance in couples therapy continues to be one of the most important predictors of positive change (Anker, Owen, Duncan & Sparks, 2010; Johnson & Talitman, 1997).

In couples therapy, alliance is more challenging due to the necessity of joining with both people in the room and maintaining those alliances across time in the midst of possible triangulation processes which are intrinsic to couples therapy (Rait, 2000). One of the crucial aspects of therapeutic alliance when working with couples is gaining a unified agreement about the tasks and goals of therapy (Knerr, et al., 2011). Another author conceptualizes the attachment dimension of the marital bond as a "loyalty dimension," and suggests that highlighting the couple's interpersonal process of openness and supportiveness in various exchanges may positively impact therapeutic alliance (Garfield, 2004). A study of the alliance relationships in couples therapy demonstrated that self-disclosures between partners are positively linked to therapeutic alliance, while negative statements between partners are negatively linked to therapeutic alliance (Thomas, Werner-Wilson, & Murphy, 2005).

In summary, regardless of the model being used, therapeutic change is often a function of the relationship between therapist and client (Sprenkle, Davis & Lebow, 2009. In the words of one set of authors reviewing couples therapy alliance, "each person's alliance matters, and alliances are not interchangeable. Each and every alliance exerts both direct and interactive

effects on the course of treatment. Thus, clinicians should build and maintain strong alliances with each party and be aware of the ways in which, depending on the family's dynamics, the whole alliance is more than the sum of its parts," (Friedlander, Heatherington, Escudero, & Diamond, 2011, p. 31). Despite the decades of research demonstrating that alliance is strongly associated with positive client change, most studies focusing on alliance do not trace it across various time points during therapy, and as a result, a general lack of specificity remains with few applicable findings for clinicians (Kazdin, 2009). The literature on alliance is relevant to the current study because coded behaviors specific to alliance in couples therapy (Ackerman & Hilsenroth, 2003; Johnson, 2004), were included in the study.

Couples interaction and interventions. Process research in marital and family therapy has been utilized to compare couple self-report to observed behaviors (Gottman & Notarius, 2002; Heyman, 2001), and to identify change events within specific therapy models (Bradley & Johnson, 2005; Diamond, Siqueland & Diamond, 2003; Seedall & Butler, 2006; Zuccarini, Johnson, Dalgleish & Makinen, 2013). A number of specific examples illustrates how process research has helped address the clinician-researcher gap in marriage and family therapy. For example, change process research was used to link therapist behaviors of playfulness and use of metaphor to increased client creativity (Morgan & Wampler, 2003). In a study of women with early stage breast cancer, observations of how partners responded to their spouses' disclosures about breast cancer led authors to conclude that patients experienced less distress when their partners responded with reciprocal self-disclosures and humor, as opposed to problem-solving (Manne, Sherman, Ross, Ostroff, Heyman & Fox, 2004). Furthermore, the coding of specific couple interaction behaviors while discussing conflict was used to create an algorithm predicting future divorce (Gottman & Levenson, 2002; Gottman, Swanson, & Murray, 1999).

Process research has also been used to study physiological processes associated with couple interaction. For example, one study demonstrated that higher couple conflict interferes with processes involved in wound healing and health outcomes related to the production of oxytocin and vasopressin (Gouin, et al., 2010). Another study found that warm touch between couples was linked with an increase in oxytocin for the couples and with lowered systolic blood pressure in men over a period of four weeks (Holt-Lunstad, Birmingham & Light, 2008).

Process research has been used in other ways as well. In a unique study examining client perceptions about pivotal moments in therapy that facilitate change, researchers learned that clients have highly individualized accounts about what constitutes a pivotal moment, and that therapists and partners may vary greatly in their perceptions (Helmeke & Sprenkle, 2000). The researchers also determined that reframes early in therapy can be helpful as well as repetition and refocusing on something repeatedly (Helmeke & Sprenkle). A family process research study in which dyadic and triadic interactions were observed found that marital balance of power with firm but flexible boundaries provides stability for children and that reduced cohesiveness results from triangulating children into marital conflict (Lindahl, Malik, Kaczynski, & Simons, 2004).

Studies focusing on particular interventions in couples therapy have also yielded useful clinical information. Enactments have been investigated specifically as a crucial change mechanism in couples therapy (Butler & Gardner, 2003). These authors proposed that enactments may be an important common mechanism in the process of couple change, referring to them as a possible "critical dimension of 'best practice,' providing a structure and process crucial to relationship mediation concerned with healing, enriching, strengthening, and empowering relationships," (p. 311). They suggested that enactments are unique in relational therapies and may be essential in the successful outcomes of these therapies, regardless of

intervention model employed (Butler & Gardner). In an examination of a specific intervention using proxy voice in enactments in couples therapy, proxy voice was positively associated with softening and inversely related to withdrawal or negativity (Seedall & Butler, 2006). Additional researchers have used process research to study specific therapeutic use of enactments in order to create this type of change in couples therapy (Andersson, Butler & Seedall, 2006; Butler, Harper & Mitchell, 2011; Mitchell, et al., 2008) Studies of self-disclosure accompanied by empathic responding among married couples confirm that this is a process which is associated with increased intimacy (Mitchell, et al.). Softened interactions between couples are facilitated by therapeutic adaptation to specific couple process (Andersson, Butler & Seedall).

Model-specific process research. A number of family-based treatments have been developed and refined through process research (Liddle, 2004). The developers of Attachment Based Family Therapy (ABFT) for adolescents with depression used process research to refine specific treatment tasks in therapy (Diamond, Siqueland & Diamond, 2003). Likewise, process studies revealed that psychoeducation in the family treatment of schizophrenia is effective through mechanisms of basic education about the disorder, problem-solving and coping skills (Goldstein & Miklowitz, 1995). In a process study of Multisystemic Family Therapy (MST), findings show that therapist adherence to the model enhanced outcome, that improved family relationships were associated with reductions in delinquent behavior, and targeting delinquent peer relationships improved functioning (Huey, Henggeler, Brondino, & Pickrel, 2000).

Process research was instrumental in the development of Multidimensional family therapy (MDFT). Specific studies revealed patterns in therapeutic impasses in MDFT, suggesting that therapists who were successful actively blocked or worked through negative emotions, amplified feelings of sadness, regret or loss, elicited the adolescents' thoughts and

feelings, prompted parent-adolescent conversation around important topics, and supported parents' efforts to cope with adolescent behavior (Diamond & Liddle, 1996, 1999). Researchers also found that alliance with adolescents could be strengthened if therapists were attentive to adolescents' experiences, presenting self as an ally and helping the adolescent form meaningful goals (Diamond, Liddle, Dakof, & Hogue, 1999; Diamond & Liddle, 1999). Process research for MDFT also identified the importance of dealing with culturally relevant themes with African American male adolescents (Jackson-Gilfort, Liddle, Tejeda, &Dakof, 2001).

Process research has also been used in the development and understanding of specific couples therapy models. In an examination of coded therapy sessions in Integrative Behavioral Couples Therapy (IBCT), researchers found that an important mechanism of change was the process of couple detachment where partners were able to discuss problems in a non-blaming way without criticism, and they also found that 'softer' interactions with more emotional expression are also related to change (Cordova, Jacobson & Christensen, 1998). In a later process study comparing TBCT with IBCT, researchers found that the stage of therapy might interact with change mechanisms, and concluded that ideal treatment might include TBCT in the early stages of therapy and IBCT in later stages of therapy (Doss, Thum, Sevier, Atkins & Christensen, 2005).

EFT process research. Process research has been key throughout the development of EFT (Greenman & Johnson, 2013). EFT process studies have verified that therapeutic alliance is one of the most important variables promoting change in therapy (Johnson & Talitman, 1997). Greenberg and Johnson (1988), as the earliest authors of EFT, discovered in their process research a specific type of interaction which occurred in a key change event, where "a withdrawn partner becomes explicitly available and engaged in the relationship and a previously blaming or

pursuing spouse 'softens,' and is able to experience and express vulnerability and to request a response," (p. 29). They described this as a moment of engagement in which spouses created a new "dance," (p. 29). In an EFT study including interviews of 21 couples, five major change processes emerged: Expression of underlying feelings by one partner which changed interpersonal perception; expressing feelings and needs, gaining understanding, taking responsibility for the experience, and receiving validation (Greenberg, James & Conry, 1988; see also Greenberg, Ford, Alden & Johnson, 1993). This early study accessed the perceptions of clients regarding change in therapy and helped inform interventions.

Process research was also used to understand and link therapeutic moments through the development of a mini-theory for EFT. A moment-by-moment process study of four sessions of therapy described intrinsic processes that led to change outcomes in EFT (Bradley & Furrow, 2004). The authors described the importance of therapist facilitation of individuals reaching for partners in a soft way and supporting the other partner in accepting the reach and responding supportively; this process is labeled an enactment in EFT therapy (Bradley & Furrow). These softening events are considered "antidotes," to negative interaction patterns that are pervasive in couple relationships (Bradley & Furrow, p. 27). This cutting edge process research outlined a predictable pattern for client interactional responses as facilitated by the therapist. It also led to an identification of common obstacles therapists face in attempting to choreograph such an interaction, and is now included as part of EFT training (Bradley & Furrow).

In their work, Bradley and Furrow (2004) point out that, "The definitive intervention in the softening process is the therapist prompting of the softening reach, which initiates an enactment," (p. 243). As noted in previous research, enactments are a key therapy process in couples therapy (Butler & Gardner, 2003). In EFT, enactments are process events in which

individuals disclose needs and emotions directly to their partners followed by empathic responses from those partners. These responses help partners to experience safety in ways that facilitates reorganization and expansion of emotional reactions within the marriage (Johnson, 2004).

In EFT, process research has also recently been used to study specific change behaviors in therapy, such as forgiveness, which is a common necessary and desired outcome for change in couples therapy (Zuccarini, Johnson, Dalgleish & Makinen, 2013). Audiotapes of 18 heterosexual couples were evaluated for attachment injury resolution, therapist interventions, and client emotional processing. A specific set of steps and stages proposed as the Attachment Injury Resolution Model (AIRM) was tested through observing therapist interventions related to forgiveness and resolution of relationship trauma. The findings suggested that couples who achieved greater resolution were more affiliative in their interpersonal responses, and more deliberate and controlled in their processing. Couples who gained resolution completed the steps of the proposed AIRM. Nonresolved partners stayed emotionally detached and reactive, impeding progression through the steps of the model. Overall, therapist interventions in this study closely resembled interventions common in general EFT (Johnson, 2004).

Process Research and Observational Coding

Observational coded research of interpersonal interactions offers high clinical utility in process research, and is considered to be a potential bridge to the gap between researcher and clinician (Heyman, 2001). Coded research helps to shed light on how couple interaction affects future stability and how therapists might influence the interpersonal process between partners (Williamson, Bradbury, Trail & Karney, 2011). Because direct observational coding uses raters who are not participants in the interpersonal system being studied, research bias is reduced and

more objective inferences can be made about observable phenomena that have been operationally defined (Alexander, et al., 1995; Wampler and Harper, in press). Additionally, observational coding links theory to practice by either confirming or disconfirming hypotheses related to change processes in psychotherapy (Alexander, et al.; Gottman & Notarius, 2002). It is through this research that theory can be developed into sound, effective practice (Alexander, et al.; Gottman & Notarius). Observational research adds depth and richness to other less expensive methods and provides predictive power and theoretical clarity beyond traditional surveys and questionnaires, in part because it measures phenomena which can lie outside the awareness of the interacting participants (Gottman & Notarius; Wampler & Harper).

Purpose Statement

Despite previous research, there is still a lack of clarity in couples therapy about which therapist behaviors are related to observable dyadic change in the therapy room. None of the previous EFT studies of couples therapy processes examined data from more than one session that was observed and coded by externally trained coders. This study is an attempt to fill a clinical research gap by using coded data to identify which therapist behaviors may lead to softening and connection between partners.

Research Question

Drawing upon the existing literature regarding therapist alliance in general and the role of therapist-facilitated softening in EFT, the current study addresses the following research question: Which EFT-related coded therapist behaviors (listener responsiveness, structure, communication and warmth) will be predictive of EFT-related, coded couple behaviors (warmth and listener responsiveness) across multiple sessions of therapy?

Methodology

Participants

After receiving Institutional Review Board (IRB) approval, eleven heterosexual couples were recruited and passed an initial screening process to participate in a marriage and health study at a university mental health clinic in the western United States. They were recruited through flyers posted in the clinic building, on campus, and in the university departments of mental health related fields, as well as at various mental health clinics and libraries in the community. Participants were offered a $250 payment and 12 sessions of free marital therapy for participation, and were screened in order to meet study inclusion requirements. Couples were given the Revised Dyadic Adjustment Scale (RDAS) in order to screen out those who did not meet distress criteria (Busby, Christensen, Crane & Larson, 1995). Couples included in the study all scored at or below 52 on the RDAS, with at least one spouse scoring 49 or below, indicating at least mild marital distress (Busby, Christensen, Crane & Larson). One pre-therapy RDAS score was missing for one participant, so the score was imputed based on the DAS score obtained right after initial screening was completed, but before therapy began, according to the imputation formula presented by Crane, Middleton, and Bean (2000). Those who scored higher on the assessment were offered therapy, but were not included in the study. A control group included couples who were compensated for participating in the screen, but were not offered therapy because they had scores indicating high marital adjustment. They were a comparison group not used in this study.

The mean age for husbands was 36.55 (14.01) and 32.73 (13.45) for wives. The length of their marriages averaged 10.67 (10.84) years with a range of less than one year to 29 years. Couples had an average of 1.91 (2.01) children. For ethnicity, eleven husbands identified as

Caucasian. Ten wives identified as Caucasian and one 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, one couple reported making between $55,000-69,999, and three couples reported between $70,000-84,999.

Procedure

Once couples passed initial screening, they were offered twelve free marital therapy sessions. They were asked to complete the Dyadic Adjustment Scale (DAS) at intake and again after the last session. Participants were required to give blood, have their mouths swabbed, and have blood pressure taken at three time points (beginning, middle and end) during therapy. The couples completed these health tests as part of a larger heart disease study. The couples were offered the monetary gift at the end of the complete round of therapy sessions.

The therapists were two male and two female interns 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). The students were invited to participate as therapists providing 12 sessions of therapy on a weekly basis to the couples who had passed screening and agreed to volunteer in the study. Therapists were exposed preliminarily to EFT in a couples therapy class designed to teach and refine couples therapy skills, where they read the treatment manual (Johnson, 2004). In addition, they attended group supervision sessions for an hour every other week with a professor who is a certified EFT supervisor over a 16-week period. They were also given an article describing EFT fidelity (Denton, Johnson, & Burleson, 2009).

After the couples were recruited, therapists were instructed to call the couples and set up appointments. At the beginning of treatment, therapists continued receiving weekly individual

supervision with an EFT certified therapist, as well as bi-weekly group supervision with an EFT certified supervisor and licensed therapist. Every 50 minute therapy session was video-taped and viewed in ongoing supervision and then copied in digital format to be used by researchers examining the therapy process.

The video tapes for sessions 3, 7 and 10 were coded for each case, to represent the beginning, middle, and end stages of therapy. There were some cases in which these sessions were incomplete. In three 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. The rationale for using sessions 4, 6, or 10 in these instances, is that they represent beginning and later stages of therapy, respectively. Coders fast-forwarded twenty minutes into the session and then began coding for exactly ten minutes from that point. The intent was to avoid the structure and scheduling components that are typical of the beginning and ending moments of therapy. Ten minutes of each session were coded, consistent with generally accepted coding protocols (Heyman, et al., 2001). The coders were trained in a coding lab with inter-rater reliability (described below), on the Iowa Family Interaction Rating Scale (IFIRS) coding scale (Melby, Conger, Book, Rueter, Lucy, Repinski, Rogers, Rogers & Scaramella, 1998), and applied this approach when coding the sessions.

Instruments

The Iowa Family Interaction Rating Scales. The Iowa Family Interaction Rating Scales (IFIRS) were developed as a way to measure behavioral characteristics and exchanges between individuals and behavioral exchanges between groups of 2, 3 or 4 people on affective, nonverbal and contextual dimensions of interaction (Melby, et al., 1998). The scales used specifically in this study were warmth/support, listener responsiveness, communication, and

dominance, because the descriptive terms identifying the scales were in alignment with the research question variables for the study. Coders used the Iowa Family Interaction Rating Scales (Melby, et al.) to assign numerical values to behavioral interactions between husband and wife in a marital pair, as well as between the therapist and each member of the dyad. This is a global coding scheme, meaning that the scores were assigned based on the overall segment of coded tape. The Iowa Family Interaction Rating Scales have been used in previous studies and have demonstrated acceptable validity and reliability (Melby, Conger, Ge, & Warner, 1995; Melby, Conger & Puspitawait, 1999; Melby, Ge, Conger, & Warner, 1995).

Procedural training of observational coders. Coders were non-therapist university students without affiliation to the research study. They received training to be coders over a period of several weeks. Each coder read the coding manual, which provides detailed descriptions of each scale with relevant examples (Melby, et al., 1998). Then, they took tests to demonstrate mastery with the various codes in the Iowa Family Interaction Rating Scales. Next, coders practiced coding observed tasks and discussed the process in a group with trained coders several times. Then, they coded a task that had been previously coded by certified coders at the Iowa State Coding Lab. To demonstrate competency, they had to achieve 80% agreement with the certified coders (Melby & Conger, 2001). In addition, coders' ratings were compared over a series of several weeks with certified coders at the university to verify that they were consistently achieving 80% interrater agreement before they were certified to code tasks for the study. The complete process took an average of 90 hours of training per coder. After that, coders were consistently tracked weekly to ensure maintenance of 80% interrater reliability. If the coder drifted from the 80% reliability requirement, they were required to again attend discussion

groups to code tasks with the group in order to bring the reliability requirement up to the required standard.

For this study, coders used ten minutes of digital recordings from the middle of the therapy session from three sessions of therapy representing the beginning, middle and end stages of therapy. In order to code a task, coders were first asked to watch ten minutes of the digitized therapy session to get a general feel for the interactions. Next, they would flip a coin to decide which person in the therapy room, therapist, husband, or wife, would be the focal for the first round of coding. Coders then assigned a rating to that person based on frequency, intensity and context from 1 (not at all characteristic) to 9 (totally characteristic) for 30 codes, including the codes for warmth, dominance, listener responsiveness, and communication used in this study. The process was then repeated for any possible dyadic interactions where husband or wife is the one receiving the behavior.

Husband and wife warmth/support. IFIRS codes for warmth and support exchanges were selected because they resemble couple bonding moments in therapy, demonstrating the type of affiliative, nurturing emotional responsiveness required between couples to experience change in EFT (Johnson, 2004; Tilley and Palmer, 2012; Zuccarini, Johnson, Dalgleish & Makinen, 2013; Mitchell, et al., 2008). The scale of warmth/support "measures the degree to which the focal expresses liking, appreciation, praise, care, concern, or support for the other person. The scale includes the observation of three types of behavior: NONVERBAL COMMUNICATION, such as affectionate touching, kissing, and loving smiles; SUPPORTIVENESS, such as showing concern for the other's welfare, offering encouragement, and praise; and CONTENT, such as statements of affirmation, empathy, liking, appreciation, care, and concern. In general, rate how much the focal demonstrates care and support for the other," (Melby, et al., 1998, p. 101). The

scores range on a scale from 1 (not characteristic) to 9 (mainly characteristic). Interrater reliability for warmth/support for this study was .85.

Therapist warmth/support. These scores were included because therapist warmth and support are crucial in building and maintaining alliance throughout the therapeutic process, and appear in the literature repeatedly as characteristics necessary for alliance and overall therapy effectiveness (Ackerman & Hilsenroth, 2003) In addition, they are of particular importance in EFT therapy (Johnson & Talitman, 1997; Johnson, 2004). The warmth/support definitions identified above were coded for the dyadic interactions of therapist warmth/support toward wife as well as therapist warmth/support toward husband for each session. Again, scores ranged on a scale from 1 (not characteristic) to 9 (mainly characteristic). Interrater reliability for warmth/support for this study was .85.

Therapist dominance. Dominance was included because there is evidence that in order to achieve desired bonding events between couples, therapists must be directive and focused on facilitating contact between partners, and resist becoming diverted in the therapy process; a common term in the literature reflecting this trait is the ability to structure (Johnson, 2004; Tilley & Palmer, 2012). Dominance in the coding system is defined as, "the degree to which the focal attempts to dominate, influence, or control other people and/or the situation and is successful in these attempts. High dominance is indicated when the focal attempts to and is successful in influencing others to conform to the behaviors, opinions, or points of view desired by the focal, especially when differences in these areas are initially present," (Melby, et al., 1998, p. 85). Scores for therapist dominance toward husband and therapist dominance toward wife ranged from 1 (not characteristic) to 9 (mainly characteristic). Interrater reliability for dominance for this study was .87.

Listener responsiveness. Listener responsiveness was included because it describes behaviors which are fundamental in therapy process and necessary for positive outcome, such as validation, evocative reflections and questions, and tracking and reflecting interactions (Ackerman & Hilsenroth, 2003; Johnson, 2004). It was examined as a predicting variable from therapist to couple and as an outcome between husband and wife. In IFIRS, listener responsiveness is defined as, "the behavior of the focal as a listener. It assesses the degree to which the focal attends to, shows interest in, acknowledges, and validates the verbalizations of the other person (the speaker) through the use of nonverbal backchannels and verbal assents. A responsive listener is oriented to the speaker and makes the speaker feel that he/she is being listened to rather than feeling like he/she is talking to a blank wall. The listener conveys to the speaker that he/she is interested in what the speaker has to say," (Melby, et al., 1998, p. 125). The listener responsiveness scores of therapist toward husband and therapist toward wife were both examined as well as husband listener responsiveness toward wife and wife listener responsiveness toward husband and ranged from 1 (not characteristic) to 9 (mainly characteristic). Interrater reliability for listener responsiveness for this study was .83.

Therapist communication. This score was included to explore how clarity on the part of the therapist might make a difference in achieving desired dyadic response patterns, because lucid communication has traditionally been associated with strong therapeutic alliance and positive therapeutic outcome (Ackerman & Hilsenroth, 2003). Communication in the coding system is defined as a scale which "measures the behavior of the focal as a communicator (verbal expressive skills and content of statements). It assesses the extent to which the focal conveys in a neutral or positive manner his/her needs and wants, rules and regulations, as well as clearly express information and ideas that may be useful to others. Communication entails the use of

EXPLANATIONS and clarifications; the use of REASON; SOLICITING the other's views or in some way demonstrating consideration of the other's point of view; encouraging the other to explain and clarify his/her point of view; and responding reasonably and appropriately to the ongoing conversation," (Melby, et al., 1998, p. 129). The scores for therapist to husband and therapist to wife were both included separately and the scale is from 1 (not characteristic) to 9 (totally characteristic). Interrater reliability for communication for this study was .86.

Analytic Strategy

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 extremely small sample size, 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 is Level 1 and Individual is Level 2. Therapist warmth, listener responsiveness, communication, and dominance toward husbands and toward wives were predictors and husband to wife warmth, wife to husband warmth, husband to wife listener responsiveness and wife to husband listener responsiveness were outcome variables.

Then, 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 (therapist warmth, listener responsiveness, communication, dominance) were added one by one 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 20.0 was used in the analysis.

Results

Preliminary Analyses

The means and standard deviations for all study variables at each time point are displayed in Table 1. Pearson correlations among the therapist and wife variables and therapist and husband variables used in the final model are featured in Tables 2 through 17. Pearson correlations among predictor variables for wives and predictor variables for husbands are presented in Tables 18 and 19, respectively.

Wife Listener Responsiveness

The means model indicated that across all time points and individuals, wife listener responsiveness was 4.45 ($p<.001$). Examination of random effects indicated that there was significant within individual variance. An intra-class correlation was calculated ($\rho = \sigma^2_\varepsilon / \sigma^2_\varepsilon + \sigma^2_0$) and indicates that 62.8 % of the variance was due to within individual variance. To examine unconditional growth, centered linear time (SessionsC) was added to the model. Time-varying therapist independent variables were then added as level 2 predictors in order to test for the effect on the rate of change. With the addition of linear time and substantive predictors, model fit did not improve and no significant effects were found among the predictors (see Table 20). Examination of random effects indicated that there was still significant within-individual variance to be explained; however, the findings of this analysis indicated that the within-individual variance in wife warmth was not explained by linear time. This concluded model testing for this outcome.

Husband Listener Responsiveness

The unconditional means model indicated that across all time points and individuals, husband listener responsiveness was 4.48 ($p<.001$). Examination of random effects indicated

that there was significant within-individual variance. An intra-class correlation was calculated and indicated that 31.8% of the variance was due to within-individual variance. To examine unconditional growth, centered linear time (SessionsC) was added to the model. With the addition of linear time, model fit improved; however, the effect of time was non-significant (see Table 21). Again, time-varying therapist independent variables were then added as level 2 predictors in order to test for the effect on the rate of change. With the addition of substantive predictors, model fit did not improve, and predictors were non-significant (see Table 21). Again, an examination of random effects indicated that there was still significant within-individual variance to be explained. This concluded model testing for this outcome.

Wife Warmth

For women, results from the unconditional means model (Table 22; Model A) indicated that on average, across all time points and participants, women's warmth toward their husbands was 2.82 ($p<.001$). Random effects indicated that there was significant within-individual variance to be explained, but no significant between-individual variance to be explained. An intra-class correlation was calculated and indicated that 64% of the variance lies within-individual. To examine unconditional growth, centered linear time (SessionsC) was added to the model. Model fit did not improve with the addition of time, the delta deviance was not significant, and results did not show a significant linear effect. As with the previous models, time-varying therapist independent variables were then added as level 2 predictors in order to test for the effect on the rate of change. When substantive predictors were added, model fit did not improve. There was slight model improvement from Model D to E, but no significant effects were detected. This concluded model testing for this outcome.

Husband Warmth

For men, results from the unconditional means model (Table 23; Model A) indicated that on average, across all time points and participants, men's warmth toward their wives was 2.67 ($p<.001$). Random effects indicated that there was significant within-individual variance to be explained, and between-individual variance to be explained approaches significance. The intra-class correlation indicated that 46.6% of the variance in husband warmth toward wife was due to within-individual factors. To examine unconditional growth, centered linear time (SessionsC) was added to the model. The fixed effect for linear time was non-significant. Random effects indicated that there remained statistically significant within-individual variance to be explained. Time-varying therapist independent variables were again added as level 2 predictors in order to test for the effect on the rate of change. Results of a delta deviance test indicated improved model fit. On average, husbands' warmth toward their wives was 4.01 and decreased .6 for each session; however, therapist warmth toward husband had a statistically significant effect on the intercept and slope (see Table 23; Model C). The addition of other substantive predictors did not improve model fit, and the predictors were non-significant, so Model C was chosen as the final model. The model fit statistics are reflected in the AIC at 131.17 and the BIC at 143.13. A prototypical plot shown in Figure 1 for high and low therapist warmth, which are one standard deviation above and below the mean, was constructed using the fitted equation and suggests that that at lower levels of therapist warmth, husbands' warmth over time is on a slightly downward trajectory. At higher levels of therapist warmth, husbands become increasingly warm toward their wives throughout the course of therapy. To examine differences at the last session in the study (rather than the initial session), we centered at session 11 and fit the model again. Results indicated that on average, husbands' warmth at session 11 was not statistically significantly

different from zero (γ_{00} = .01, *SE* = .91); however every unit of therapist warmth increased husband warmth by 1.19 (*SE* = 23, $p < .001$). Random effects from the unconditional means model and the final model were used to calculate a Pseudo-R^2 [$\sigma^2_{\varepsilon(\text{model A})} - \sigma^2_{\varepsilon(\text{model C}/} \sigma^2_{\varepsilon(\text{model A})}$] statistic, which indicated that approximately 62.7% of the within-individual variance (or 29.2% of the total variance), was explained by therapist warmth.

Discussion

This was the first study of its kind in several ways. It was the first using external coders unrelated to EFT to analyze therapist and client interactions during a session of EFT couples therapy. It was also the first to analyze the longitudinal effects of the therapist and couple in-session process using multiple sessions. This was also a unique study in that it used the IFIRS coding system in the context of the triadic relationships between couples and therapists. The use of the IFIRS offered comparative quantifiable data for examining therapy process.

Statistically significant findings were identified between therapist and couple warmth across time, consistent with previous research claiming that warmth is an important in-session construct (Farber & Doolin, 2011). There were also gender differences across time. Although there were no statistically significant associations between therapist warmth toward wives and wives' warmth toward husbands across time, there was a statistically significant linear effect for the equivalent male variables, suggesting that therapists can have an influence on engaging men in couples' in-session process. This is consistent with previous studies that have demonstrated therapeutic outcomes are more closely linked with male alliance than with female alliance, and that increased male alliance over time is associated with better outcomes (Bourgeois, Sabourin & Wright, 1990; Symonds & Horvath, 2004). Alliance is traditionally linked with empathy, which is highly correlated with warmth (Greenberg & Goldman, 1988).

In this study, the expression of warmth from husband to wife throughout the course of therapy was on a downward slope, suggesting that over time, husbands had a tendency to be less warm toward their spouses in therapy interactions. However, therapist warmth was an important moderating variable impacting husband warmth, appearing to shift the trajectory to that of an upward slope. This implies that therapists can have a potentially powerful effect on outcome by facilitating the nurturing, affiliative types of responses which would be desired in couples therapy (Johnson, 2004; Tilley and Palmer, 2012; Zuccarini, Johnson, Dalgleish & Makinen, 2013), simply by increasing their own warmth behaviors toward husbands. Because husband warmth to their wives is likely to have positive therapeutic effects, there is also a potential recursive effect reinforcing alliance, consistent with findings that marital distress can have a negative impact on alliance (Knobloch-Fedders, Pinsof, & Mann, 2007). In addition, an examination of the Pearson correlation tables reveals that in some instances, a triadic effect might be happening in therapy. For example, Table 3 correlations between husband warmth to wife at time 2 are negatively significantly correlated with therapist warmth to husband at time 3, and on Table 4, Wife warmth to husband at time 1 is significantly negatively correlated with therapist listener response to wife at time 3. As dyadic interactions occur between therapist and spouse, the other spouse may be reacting to that dyadic process, influencing later sessions and overall process and outcome. This may also point toward the importance of therapists increasing their own warmth behaviors in couples therapy. The use of warmth is also consistent with recent findings that positivity is important in a clinical couples therapy setting (Bischoff, 2008).

The findings add to a field lacking in information about specific ways to engage men more in therapy (Diehnhart, 2001). Because men often approach couples therapy cautiously (Brennan, 2011; Stiltsky, 2000), if therapists can create a condition in which they are warmer

toward their wives, those warm nurturing responses are more likely to result in bonding moments which enhance attachment (Johnson, 2004; Tilley and Palmer, 2012; Zuccarini, Johnson, Dalgleish & Makinen, 2013). If husbands feel effective and successful in couple interactions in the therapy room, they are more likely to continue engagement and have a positive experience with couples therapy (Brennan; Stiltsky).

It is important to know that warmth from a therapist can have a direct effect on men. It is possible that therapists may be modeling such behavior for husbands, or that they provide a safe environment in which husbands feel free to expand nurturing responses to their partners rather than limiting responses in reaction to spouse behavior, which is typical of constricted patterns evident in distressed couples (Johnson, 2004). Because men are often socialized to turn away from rather than toward relationships (Rabinowitz, 2012), therapist warmth may give men permission to risk the type of engagement which will result in relationship building, thus fulfilling a need to feel effective. Previous EFT research has clearly shown that when withdrawn partners (most often men) engage, outcomes are positive and lasting (Bradley& Furrow, 2004). Other couples research studies have demonstrated that empathic responding from men in particular has a positive impact on both partners in therapy (Mitchell, et al., 2008).

Initially, therapist listener responsiveness, communication, and dominance were also hypothesized to have potential significant effects on desired couples therapy processes over time, such as increased warmth between the couple and increased listener responsiveness. No significant findings were observed with any of the other independent and dependent variable combinations across time. This seems somewhat surprising because dominance (structuring), listener responsiveness and communication are common alliance variables which have historically been found to be positively linked with outcome (Alexander, Barton, Schiaro, &

Parsons, 1976; Green & Herget, 1991; Norcross & Wampold, 2011). There are potential explanations for why these variables did not predict study outcomes. First, this study only examined the linear effects of time; there could be a quadratic effect with time that would only show up additional time points. Next, the lack of significance could be due to the inexperience of some of the student therapists in the study. Perhaps higher scores on coded therapist listener responsiveness and dominance from more experienced therapists would be related to client processes. Even though therapist dominance was used as a structuring variable because of its description, coders may have perceived the controlling aspect as negative, which might have influenced how it was coded. Dominance may have a different connotation in the therapy room where a therapist must actively structure a session than in other interpersonal exchanges. It is also possible that other factors, such as client characteristics, which often account for more of the variance in outcome (Norcross & Lambert, 2011; Wampold & Brown, 2005), were more central to the process and masked therapist variables. Additionally, this study included only eleven couples, which limited statistical relationships.

Clinical Implications

This study has important implications for couples therapists working with men, who are often seen as problematic and unwilling participants in therapy (Dienhart, 2001; Moynehan & Adams, 2007). There has been increasing attention in the recent literature for therapists to engage in "male-sensitive therapy" (Shepard & Harway, 2012, p. 13), paying particular attention to contextual factors for men in the therapeutic process. Masculine gender role stress (MGRS) theory explains that as males develop and are exposed to prevailing masculinity norms, they develop cognitive schema for how they should behave, and those norms often follow them into therapy (Arrindell, 2005). Males in therapy often have difficulty expressing emotions, can have

a tendency to shut down and withdraw from their partners, traditionally focus on problem-solving and performance and focus on sex in intimate exchanges (Greenman, Faller & Johnson, 2012). The findings of this study about warmth suggest that this is a critical mechanism for influencing husbands in couples therapy, especially in the face of wife hostility and low warmth.

Because men can be oriented toward problem-solving and performance in therapy (Wexler, 2009), authors have suggested that EFT therapists can highlight the practicality of interventions by speaking specifically about how certain interventions help couples get the kind of closeness they want (Greenman, Faller & Johnson, 2012). With this in mind, therapists can watch for warmth behaviors from husband to wife and question wives about how this impacts them in the moment, highlighting for husbands the efficacy they can create by applying such behaviors. Therapists can also model this behavior for husbands and point out how shifts can occur in the relationship following warm responses. Although, EFT is not a skill-building therapy per se, warmth can framed as a tool to be used in the relationship, just as other actions that increase couple closeness can be framed as a type of skill (Greenman, Faller & Johnson). In general, therapists should stay aware of how they are impacting male clients as they introduce interventions (Greenman, Faller & Johnson), in order to monitor shutdown and withdrawal and consider increasing warmth behaviors to build client comfort with the therapy process and with their spouses.

These findings may also be particularly relevant to couple therapy models with a focus on emotion, such as EFT. Some authors have suggested that men are prematurely labeled as alexithymic, with an inability to express emotions (Levant, et al., 2006; Levant, Hall, Williams & Hasan, 2009). However, research has shown that they can be as expressive as females if they choose to be, but are often constrained by factors such as gender role expectations (Wong &

Rochlen, 2005). Warmth generated by a therapist may be an important opportunistic force that invites men to feel comfortable engaging with their spouses and thereby generating more positive engagement in therapy associated with change events. Because nurturing, affiliative responses denote change moments in EFT (Greenberg, Ford, Alden & Johnson, 1993; Johnson, 2004; Tilley and Palmer, 2012; Zuccarini, Johnson, Dalgleish & Makinen, 2013), this is important information adding to the body of existing EFT literature. Husband engagement in therapy is counter to typical patterns of stonewalling and withdrawal observed in therapy process (Greenman, Faller & Johnson, 2012), and ultimately becomes a potential new experience for the wife in therapy. Because women typically navigate the nuances of relationship building with relative ease in contrast to men, they often misunderstand men's signals in therapy and decipher their typical behavior as uncaring or unfeeling (Greenman, Faller & Johnson; Rabinowitz, 2012). An increase in husband warmth sends a strong message to wives that in fact husbands do want closeness and intimacy, thus having a possible profound effect on the entire couple relationship.

Directions for Future Research

In most instances, there was significant between-individual variance, and future research should examine between-individual factors that might help explain that variance. As a linear growth study, only three sessions were included across time, but there may be quadratic partner effects that can only be tested with more than three sessions. It is possible that there may be non-linear effects that could not be tested here. As a result, future researchers may wish to include more time points. Future studies using external coding with larger sample sizes may also deepen understanding about how therapists can specifically influence couples in therapy, in addition to warmth.

Limitations

A major limitation of this study is the small sample size. The findings cannot be generalized across a broad population, but instead tell a story about therapeutic influences among a handful of couples across time in therapy. The sample was also a self-selected group of couples who volunteered for the study, which may have influenced results. Although the couples were screened for mild marital distress, it is important to note that the sample did not represent a highly distressed group. All but one member of the sample were Caucasian; multicultural effects may observed in a more heterogenous sample than was available here. As a result, the findings may only be appropriately generalized to these groups.

There also may have been gender effects that were not measured in the therapists. Because the therapists were both male and female, clients may have responded differently according to gender. The therapists were students in the process of learning how to conduct therapy, and their inexperience must also be included as a limitation. Therapist development includes a component of experience over time; therefore, the results would likely have been different with a seasoned group of therapists. Further, although the therapists were receiving supervision experiences to ensure EFT fidelity, treatment adherence was not specifically measured in this study. As a result, the influence of therapist fidelity to the EFT model is not reported here. Despite these limitations, the current study did contribute to a professional understanding of processes in therapy and how therapist behaviors influence couples over time in therapy.

Conclusion

As a preliminary work, this study was meant to add to the larger body of couples' process research and generate more questions about how therapists influence positive change events between couples across time in therapy. The use of external coders in a longitudinal study is a first in EFT research, and verifies that warmth variables may be particularly important in therapy for males, who are traditionally viewed as more closed in the therapy process. Hopefully, this study will prompt additional longitudinal process research in couples therapy that draws upon advanced methodological approaches, as did this study.

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Table 1 – *Descriptive Statistics for Study Variables (n=11)*			
	M(SD)		
	T1	T2	T3
Warmth from therapist to wife	1.91 (1.05)	2.46 (1.64)	3.00 (1.41)
Listener Responsiveness from therapist to wife	7.73 (.79)	7.55 (1.51)	7.46 (1.21)
Communication from therapist to wife	6.64 (1.03)	7.36 (1.69)	6.36 (1.29)
Dominance from therapist to wife	5.28 (1.01)	6.27 (0.91)	5.55 (0.93)
Warmth from therapist to husband	2.18 (1.17)	2.36 (1.36)	2.46 (1.51)
Listener Responsiveness from therapist to husband	8.18 (0.98)	7.09 (1.30)	7.64 (1.29)
Communication from therapist to husband	7.82 (0.98)	7.00 (1.90)	7.18 (1.25)
Dominance from therapist to husband	5.82 (1.33)	6.36 (1.75)	6.18 (1.08)
Warmth from wife to husband	2.27 (2.01)	2.91 (3.18)	3.27 (1.79)
Warmth from husband to wife	2.36 (1.75)	2.82 (2.56)	2.82 (2.00)
Listener Responsiveness from wife to husband	4.27 (2.01)	4.27 (1.90)	4.82 (1.47)
Listener Responsiveness from husband to wife	4.00 (1.67)	4.46 (1.70)	4.55 (0.93)

Table 2 – *Pearson Correlations: Therapist Warmth to Wife and Wife Warmth to Husband – (N=11)*

	Therapist warmth to wife time 1	Wife warmth to husband time 1	Therapist warmth to wife time 2	Wife warmth to husband time 2	Therapist warmth to wife time 3	Wife warmth to husband time 3
Therapist warmth to wife time 1	____					
Wife warmth to husband time 1	-.321	____				
Therapist warmth to wife time 2	-.032	.019	____			
Wife warmth to husband time 2	-.274	.852**	.413	____		
Therapist warmth to wife time 3	.406	-.459	.260	-.134	____	
Wife warmth to husband time 3	-.039	.283	-.558	.040	-.236	____

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3 – *Pearson Correlations: Therapist Warmth to Husband and Husband Warmth to Wife (N=11)*

	Therapist warmth to husband time 1	Husband warmth to wife time 1	Therapist warmth to husband time 2	Husband warmth to wife time 2	Therapist warmth to husband time 3	Husband warmth to wife time 3
Therapist warmth to husband time 1	____					
Husband warmth to wife time 1	-.673*	____				
Therapist warmth to husband time 2	-.360	.191	____			
Husband warmth to wife time 2	-.456	.865**	.221	____		
Therapist warmth to husband time 3	.289	-.676*	-.137	-.753**	____	
Husband warmth to wife time 3	-.156	.366	-.047	.444	.030	____

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 – *Pearson Correlations: Therapist Listener Responsiveness to Wife and Wife Warmth to Husband (N=11)*

	Therapist listener response to wife time 1	Wife warmth to husband time 1	Therapist listener response to wife time 2	Wife warmth to husband time 2	Therapist listener response to wife time 3	Wife warmth to husband time 3
Therapist listener response to wife time 1	____					
Wife warmth to husband time 1	.686*	____				
Therapist listener response to wife time 2	.222	.111	____			
Wife warmth to husband time 2	.870**	.852**	.178	____		
Therapist listener response to wife time 3	-.171	-.632*	.343	-.299	____	
Wife warmth to husband time 3	.058	.283	.235	.040	-.200	____

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5 – *Pearson Correlations: Therapist Listener Responsiveness to Husband and Husband Warmth to Wife (N=11)*

	Therapist listener response to husband time 1	Husband warmth to wife time 1	Therapist listener response to husband time 2	Husband warmth to wife time 2	Therapist listener response to husband time 3	Husband warmth to wife time 3
Therapist listener response to husband time 1	____					
Husband warmth to wife time 1	-.334	____				
Therapist listener response to husband time 2	.456	-.016	____			
Husband warmth to wife time 2	-.105	.865**	-.025	____		
Therapist listener response to husband time 3	.454	-.736**	.141	-.659*	____	
Husband warmth to wife time 3	.019	.366	.084	.444	-.067	____

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 6 – *Pearson Correlations: Therapist Communication to Wife and Wife Warmth to Husband (N=11)*

	Therapist comm to wife time 1	Wife warmth to husband time 1	Therapist comm to wife time 2	Wife warmth to husband time 2	Therapist comm to wife time 3	Wife warmth to husband time 3
Therapist Communication to wife time 1	____					
Wife warmth to husband time 1	-.238	____				
Therapist Communication to wife time 2	.430	-.298	____			
Wife warmth to husband time 2	-.164	.852**	-.198	____		
Therapist Communication to wife time 3	.034	-.159	-.159	.131	____	
Wife warmth to husband time 3	-.321	.283	-.069	.040	-.351	____

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7 – *Pearson Correlations: Therapist Communication to Husband and Husband Warmth to Wife (N=11)*

	Therapist comm to husband time 1	Husband warmth to wife time 1	Therapist comm to husband time 2	Husband warmth to wife time 2	Therapist comm to husband time 3	Husband warmth to wife time 3
Therapist Communication to husband time 1	____					
Husband warmth to wife time 1	-.074	____				
Therapist Communication to husband time 2	.107	.362	____			
Husband warmth to wife time 2	.025	.865**	.165	____		
Therapist Communication to husband time 3	-.378	-.125	-.084	-.207	____	
Husband warmth to wife time 3	.186	.366	-.053	.444	.336	____

**. Correlation is significant at the 0.01 level (2-tailed).

Table 8 – *Pearson Correlations: Therapist Dominance to Wife and Wife Warmth to Husband (N=11)*

	Therapist Dom to wife time 1	Wife warmth to husband time 1	Therapist Dom to wife time 2	Wife warmth to husband time 2	Therapist Dom to wife time 3	Wife warmth to husband time 3
Therapist Dominance to wife time 1	____					
Wife warmth to husband time 1	.207	____				
Therapist Dominance to wife time 2	.349	-.431	____			
Wife warmth to husband time 2	.102	.852**	-.373	____		
Therapist Dominance to wife time 3	.039	-.568	.398	-.487	____	
Wife warmth to husband time 3	-.100	.283	-.420	.040	-.396	____

**. Correlation is significant at the 0.01 level (2-tailed).

Table 9 – *Pearson Correlations: Therapist Dominance to Husband and Husband Warmth to Wife (N=11)*

	Therapist Dom to husband time 1	Husband warmth to wife time 1	Therapist Dom to husband time 2	Husband warmth to wife time 2	Therapist Dom to husband time 3	Husband warmth to wife time 3
Therapist Dominance to husband time 1	____					
Husband warmth to wife time 1	-.227	____				
Therapist Dominance to husband time 2	-.529	-.179	____			
Husband warmth to wife time 2	-.422	.865**	-.140	____		
Therapist Dominance to husband time 3	.374	-.251	-.092	-.385	____	
Husband warmth to wife time 3	.024	.366	-.065	.444	-.169	____

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10 – *Pearson Correlations: Therapist Warmth to Wife and Wife Listener Responsiveness to Husband (N=11)*

	Therapist warmth to wife time 1	Wife listener response to husband time 1	Therapist warmth to wife time 2	Wife listener response to husband time 2	Therapist warmth to wife time 3	Wife listener response to husband time 3
Therapist warmth to wife time 1	____					
Wife listener responsiveness to husband time 1	-.321	____				
Therapist warmth to wife time 2	-.032	.141	____			
Wife listener responsiveness to husband time 2	.064	.346	.181	____		
Therapist warmth to wife time 3	.406	-.388	.260	-.335	____	
Wife listener responsiveness to husband time 3	-.012	.324	-.253	.556	-.481	____

Table 11 – *Pearson Correlations: Therapist Warmth to Husband and Husband Listener Responsiveness to Wife (N=11)*

	Therapist warmth to husband time 1	Husband listener response to wife time 1	Therapist warmth to husband time 2	Husband listener response to wife time 2	Therapist warmth to husband time 3	Husband listener response to wife time 3
Therapist warmth to husband time 1	____					
Husband listener responsiveness to wife time 1	-.051	____				
Therapist warmth to husband time 2	-.360	.132	____			
Husband listener responsiveness to wife time 2	-.248	.705*	.224	____		
Therapist warmth to husband time 3	.289	.119	-.137	.028	____	
Husband listener responsiveness to wife time 3	-.283	.512	.222	.522	-.052	____

*. Correlation is significant at the 0.05 level (2-tailed).

Table 12 – *Pearson Correlations: Therapist Listener Responsiveness to Wife and Wife Listener Responsiveness to Husband (N=11)*

	Therapist listener response to wife time 1	Wife listener response to husband time 1	Therapist listener response to wife time 2	Wife listener response to husband time 2	Therapist listener response to wife time 3	Wife listener response to husband time 3
Therapist listener responsiveness to wife time 1	____					
Wife listener responsiveness to husband time 1	.115	____				
Therapist listener responsiveness to wife time 2	.222	.707*	____			
Wife listener responsiveness to husband time 2	.389	.346	.222	____		
Therapist listener responsiveness to wife time 3	-.171	.478	.343	-.059	____	
Wife listener responsiveness to husband time 3	-.220	.324	.139	.556	.051	____

*. Correlation is significant at the 0.05 level (2-tailed).

Table 13 – *Pearson Correlations: Therapist Listener Responsiveness to Husband and Husband Listener Responsiveness to Wife (N=11)*

	Therapist listener response to husband time 1	Husband listener response to wife time 1	Therapist listener response to husband time 2	Husband listener response to wife time 2	Therapist listener response to husband time 3	Husband listener response to wife time 3
Therapist listener responsiveness to husband time 1	____					
Husband listener responsiveness to wife time 1	-.426	____				
Therapist listener responsiveness to husband time 2	.456	.046	____			
Husband listener responsiveness to wife time 2	-.596	.705*	-.338	____		
Therapist listener responsiveness to husband time 3	.454	.046	.141	-.421	____	
Husband listener responsiveness to wife time 3	-.555	.512	.037	.522	-.318	____

*. Correlation is significant at the 0.05 level (2-tailed).

Table 14 – *Pearson Correlations: Therapist Communication to Wife and Wife Listener Responsiveness to Husband (N=11)*

	Therapist comm to wife time 1	Wife listener response to husband time 1	Therapist comm to wife time 2	Wife listener response to husband time 2	Therapist comm to wife time 3	Wife listener response to husband time 3
Therapist Communication to wife time 1	_____					
Wife listener responsiveness to husband time 1	.102	____				
Therapist Communication to wife time 2	.430	.499	____			
Wife listener responsiveness to husband time 2	.158	.346	-.003	____		
Therapist Communication to wife time 3	.034	-.275	-.159	-.249	____	
Wife listener responsiveness to husband time 3	-.247	.324	-.212	.556	-.014	____

Table 15 – *Pearson Correlations: Therapist Communication to Husband and Husband Listener Responsiveness to Wife (N=11)*

	Therapist comm to husband time 1	Husband listener response to wife time 1	Therapist comm to husband time 2	Husband listener response to wife time 2	Therapist comm to husband time 3	Husband listener response to wife time 3
Therapist Communication to husband time 1	____					
Husband listener responsiveness to wife time 1	-.183	____				
Therapist Communication to husband time 2	.107	.126	____			
Husband listener responsiveness to wife time 2	-.426	.705*	.062	____		
Therapist Communication to husband time 3	-.378	.191	-.084	-.043	____	
Husband listener responsiveness to wife time 3	-.099	.512	.621*	.522	.163	____

*. Correlation is significant at the 0.05 level (2-tailed).

Table 16 – *Pearson Correlations: Therapist Dominance to Wife and Wife Listener Responsiveness to Husband (N=11)*

	Therapist Dom to wife time 1	Wife listener response to husband time 1	Therapist Dom to wife time 2	Wife listener response to husband time 2	Therapist Dom to wife time 3	Wife listener response to husband time 3
Therapist Dominance to wife time 1	____					
Wife listener responsiveness to husband time 1	-.436	____				
Therapist Dominance to wife time 2	.349	-.321	____			
Wife listener responsiveness to husband time 2	-.407	.346	-.164	____		
Therapist Dominance to wife time 3	.039	-.515	.398	-.373	____	
Wife listener responsiveness to husband time 3	-.367	.324	-.335	.556	-.066	____

Table 17 – *Pearson Correlations: Therapist Dominance to Husband and Husband Listener Responsiveness to Wife (N=11)*

	Therapist Dom to husband time 1	Husband listener response to wife time 1	Therapist Dom to husband time 2	Husband listener response to wife time 2	Therapist Dom to husband time 3	Husband listener response to wife time 3
Therapist Dominance to husband time 1	____					
Husband listener responsiveness to wife time 1	.045	____				
Therapist Dominance to husband time 2	-.529	.000	____			
Husband listener responsiveness to wife time 2	.129	.705*	-.095	____		
Therapist Dominance to husband time 3	.374	.111	-.092	.169	____	
Husband listener responsiveness to wife time 3	-.154	.512	.479	.522	-.009	____

*. Correlation is significant at the 0.05 level (2-tailed).

Table 18 – *Pearson Correlations: Wife Predictor Variables (N=11)*

	Therapist warmth to wife time 1	Therapist listener response to wife time 1	Therapist Comm to wife time 1	Therapist Dom to wife time 1	Therapist warmth to wife time 2	Therapist listener response to wife time 2	Therapist Comm to wife time 2	Therapist Dom to wife time 2	Therapist warmth to wife time 3	Therapist listener response to wife time 3	Therapist Comm to wife time 3	Therapist Dom to wife time 3
Therapist warmth to wife time 1	____											
Therapist listener responsiveness to wife time 1	-.155	____										
Therapist communication to wife time 1	.153	-.135	____									
Therapist dominacne to wife time 1	-.449	-.149	-.088	____								
Therapist warmth to wife time 2	-.032	.573	.227	-.143	____							
Therapist listener responsiveness to wife time 2	-.219	.222	.076	-.436	.133	____						
Therapist communication to wife time 2	-.319	-.144	.430	.053	.369	.543	____					
Therapist dominance to wife time 2	.346	-.447	.656*	.349	.178	-.340	.387	____				
Therapist warmth to wife time 3	.406	.000	.207	-.070	.260	-.563	-.251	.313	____			
Therapist listener responsiveness to wife time 3	.115	-.171	.387	-.601	.289	.343	.350	.058	.408	____		
Therapist communication to wife time 3	-.271	-.090	.034	.147	.104	-.267	-.159	-.008	.495	.396	____	
Therapist dominance to wife time 3	.466	-.458	.123	.039	-.113	-.800**	-.455	.398	.757**	.200	.401	____

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 19 – *Pearson Correlations: Husband Predictor Variables (N=11)*

	Therapist warmth to husband time 1	Therapist listener response to husband time 1	Therapist Comm to husband time 1	Therapist Dom to husband time 1	Therapist warmth to husbnad time 2	Therapist listener response to husband time 2	Therapist Comm to husband time 2	Therapist Dom to husband time 2	Therapist warmth to husband time 3	Therapist listener response to husband time 3	Therapist Comm to husband time 3	Therapist Dom to husband time 3
Therapist warmth to husband time 1	____											
Therapist listener responsiveness to husband time 1	.230	____										
Therapist communication to husband time 1	.293	.660*	____									
Therapist dominance to wife time 1	-.299	.181	-.105	____								
Therapist warmth to husband time 2	-.360	-.129	-.245	-.015	____							
Therapist listener responsiveness to husband time 2	-.078	.456	.641*	.068	.318	____						
Therapist communication to husband time 2	-.361	-.483	.107	-.238	.348	.446	____					
Therapist dominance to wife time 2	.405	-.392	.159	-.529	.023	.028	.573	____				
Therapist warmth to husband time 3	.289	.276	-.074	.645*	-.137	-.023	-.454	-.145	____			
Therapist listener responsiveness to husband time 3	.448	.454	.101	.250	-.431	.141	-.492	-.247	.609*	____		
Therapist communication to husband time 3	-.367	-.193	-.378	.443	-.278	-.257	-.084	-.171	.376	.356	____	
Therapist dominance to wife time 3	-.108	-.507	-.816**	.374	-.118	-.512	-.147	-.092	.436	.269	.640*	____

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 20. *Taxonomy of Models for Wife Listener Responsiveness Toward Husband*

	Par.	Model A	Model B	Model C	Model D	Model E	Model F
Df		3	6	8	10	12	14
Fixed Effects							
Initial Status (π_{0i})	γ_{00}	4.45*** (.40)	4.18*** (.54)	4.64*** (.91)	4.88 (3.92)	5.69 (4.43)	10.04† (5.09)
Thp.wrmth.wife	γ_{01}			-.23 (.37)	-.25 (.36)	-.25 (.38)	-.55 (.35)
Thp.listen.wife					-.03 (.49)	-.06 (.50)	-.13 (.45)
Thp.comm.wife						-.08 (.43)	.10 (.08)
Thp.dominance.wife							-.83† (.39)
Rate of Change (π_{1i})	γ_{10}		.07 (.07)	.04 (.17)	.19 (.67)	-.05 (.76)	-1.03 (1.03)
Thp.wrmth.wife	γ_{11}			.02 (.06)	.03 (.06)	.02 (.07)	.10 (.08)
Thp.listen.wife					-.01 (.09)	-.01 (.09)	-.04 (.10)
Thp.comm.wife						.03 (.08)	.00 (.10)
Thp.dominance.wife							.21† (.12)
Random Effects							
Level 1							
Within-Person	σ^2_ε	1.91*** (.58)	1.73* (.74)	1.74* (.74)	1.61*** (.52)	1.56*** (.51)	1.49† (.86)
Level 2							
Initial Status	σ^2_0		1.79 (1.51)	1.66 (1.44)	1.93 (1.35)	1.93 (1.30)	.71 (1.80)
Rate of change	σ^2_1		.01 (.03)	.00 (.03)	.00 (.00)	.01 (.00)	.05 (.00)
Cov.	σ^2_{10}		-.09 (.19)	-.08 (.04)	-.08 (.11)	-.10 (.10)	.18 (.54)
Deviance		126.20	124.89	124.39	124.31	124.21	125.60
ΔDeviance			1.31	.50	.08	.10	-1.39
AIC		132.20	136.89	140.39	144.31	148.21	153.60
BIC		136.69	145.87	152.36	159.27	166.17	174.55

Note, †p<.10, * p<.05, **p<.01, ***p<.001, Model A: Unconditional Means; Model B: Unconditional Growth Model C: Adding therapist warmth to wife; Model D: Adding therapist listener responsiveness; Model E: Adding therapist communication; Model F: Adding therapist dominance

Table 21. *Taxonomy of Models for Husband Listener Responsiveness Toward Wife*

	Par.	Model A	Model B	Model C	Model D	Model E	Model F
Df		3	6	8	10	12	14
Fixed Effects							
Initial	γ_{00}	4.49***	4.44***	4.21***	4.83*	5.54*	5.52*
Status (π_{0i})		(.38)	(.55)	(.68)	(1.88)	(2.06)	(2.08
Thp.wrmth.wife	γ_{01}			.10	.11	.11	-.05
				(.18)	(.19)	(.20)	(.21)
Thp.listen.wife					-.08	-.02	-.05
					(.23)	(.34)	(.32)
Thp.comm.wife						-.16	-.10
						(.30)	(.28)
Thp.dominance.wife							.03
							(.15)
Rate of	γ_{10}		.01	.05	.04	-.14	-.00
Change (π_{1i})			(.05)	(.09)	(.31)	(.36)	(.38)
Thp.wrmth.wife	γ_{11}			-.02	-.01	-.01	.02
				(.03)	(.04)	(.07)	(.04)
Thp.listen.wife					-.00	-.02	-.02
					(.04)	(.05)	(.05)
Thp.comm.wife						.04	.06
						(.05)	(.05)
Thp.dominance.wife							-.06
							(.04)
Random Effects							
Level 1							
Within-	σ^2_ε	.64***	.32*	.31*	.31*	.33*	.26*
Person		(.19)	(.14)	(.13)	(.13)	(.15)	(.12)
Level 2							
Initial	σ^2_0		3.02*	3.10*	2.96*	2.88*	2.74*
Status			(1.41)	(1.45)	(1.45)	(1.45)	(1.34)
Rate of	σ^2_1		.02	.02	.02	.02	.02
change			(.01)	(.01)	(.02)	(.02)	(.01)
Cov.	σ^2_{10}		-.23	-.24	-.24	-.23	-.21
			(.13)	(.13)	(.14)	(.14)	(.12)
Deviance		100.84	90.02	89.70	89.32	88.47	85.03
ΔDeviance			10.82***	.32	.38	.85	3.44
AIC		106.84	102.02	105.70	109.32	112.47	113.03
BIC		111.33	111.00	117.67	124.28	130.43	134.00

Note, * p<.05, **p<.01, ***p<.001, Model A: Unconditional Means; Model B: Unconditional Growth; Model C: Adding therapist warmth to husband; Model D: Adding therapist listener responsiveness; Model E: Adding therapist communication; Model F: Adding therapist dominance

Table 22. *Taxonomy of Models for Wife Warmth Toward Husband*

	Par.	Model A	Model B	Model C	Model D	Model E	Model F
Df		3	6	8	10	12	14
Fixed Effects							
Initial Status (π_{0i})	γ_{00}	2.82*** (.53)	2.32*** (.76)	1.20 (1.18)	-2.17 (5.10)	-3.55 (4.70)	-1.79 (3.91)
Thp.wrmth.wife	γ_{01}			.57 (.46)	.59 (.47)	1.05* (.40)	1.64*** (.30)
Thp.listen.wife					.43 (.63)	.55 (.53)	-.01 (.36)
Thp.comm.wife						-.03 (.46)	-.41 (.37)
Thp.dominance.wife							.71* (.34)
Rate of Change (π_{1i})	γ_{10}		.13 (.10)	.13 (.21)	.55 (.87)	1.04 (.80)	-.09 (.73)
Thp.wrmth.wife	γ_{11}			-.03 (.08)	-.04 (.08)	-.04 (.07)	-.12† (.07)
Thp.listen.wife					-.05 (.12)	-.00 (.09)	.13† (.07)
Thp.comm.wife						-.14 (.08)	-.20 (.07)
Thp.dominance.wife							.11 (.09)
Random Effects							
Level 1							
Within-Person	σ^2_{ε}	3.49*** (1.05)	3.40** (1.22)	2.66*** (.87)	2.75** (.97)	1.63*** (.54)	.38† (.20)
Level 2							
Initial Status	σ^2_0		3.59 (2.93)	3.82 (2.36)	3.16 (2.58)	4.18† (2.46)	6.57* (3.24)
Rate of change	σ^2_1		.01 (.00)	.00 (.00)	.00 (.00)	.00 (.00)	.07 (.04)
Cov.	σ^2_{10}		-.20 (.32)	-.13 (.26)	-.12 (.25)	-1.05 (.18)	-.09 (.31)
Deviance		145.64	142.73	140.22	139.72	131.18	125.88
ΔDeviance			2.91	2.51	.5	8.54*	5.3
AIC		151.64	154.73	156.22	159.72	155.18	153.88
BIC		156.13	163.71	168.19	174.69	173.14	174.83

Note, †p<.10, * p<.05, **p<.01, ***p<.001, Model A: Unconditional Means; Model B: Unconditional Growth; Model C: Adding therapist warmth to wife; Model D: Adding therapist listener responsiveness; Model E: Adding therapist communication; Model F: Adding therapist dominance

Table 23. *Taxonomy of Models for Husband Warmth Toward Wife*

	Par.	Model A	Model B	Model C	Model D	Model E	Model F
Df		3	6	8	10	12	14
Fixed Effects							
Initial	γ_{00}	2.67***	2.44**	4.01***	7.59**	8.05**	7.79**
Status (π_{0i})		(.51)	(.61)	(.63)	(1.89)	(2.12)	(2.21)
Thp.wrmth.hub	γ_{01}			-.70**	-.53*	-.53*	-.65**
				(.21)	(.21)	(.21)	(.21)
Thp.listen.hub					-.49*	-.34	-.34
					(.24)	(.31)	(.28)
Thp.comm.hub						-.22	-.16
						(.30)	(.28)
Thp.dominance.hub							.01
							(.17)
Rate of	γ_{10}		.06	-.60**	-1.10*	-1.28**	-1.06*
Change (π_{1i})			(.08)	(.13)	(.41)	(.45)	(.47)
Thp.wrmth.hub	γ_{11}			.28***	.25***	.23***	.24***
				(.04)	(.05)	(.05)	(.04)
Thp.listen.hub					.07	.04	.03
					(.06)	(.06)	(.06)
Thp.comm.hub						.06	.11†
						(.06)	(.06)
Thp.dominance.hub							-.07
							(.05)
Random Effects							
Level 1							
Within-	σ^2_ε	1.94***	1.74*	.72*	.48*	.59	.50
Person		(.58)	(.74)	(.31)	(.24)	(.40)	(.33)
Level 2							
Initial	σ^2_0	2.22	2.65	1.30	1.68	1.73	1.57
Status		(1.24)	(1.85)	(.85)	(.96)	(1.07)	(1.01)
Rate of	σ^2_1		.01	.06	.05	.03	.02
change			(.04)	(.06)	(.03)	(.04)	(.04)
Cov.	σ^2_{10}		-.06	.27	.21	.22	.19
			(.20)	(.18)	(.13)	(.12)	(.11)
Deviance		131.90	131.20	115.17	111.25	110.66	107.46
ΔDeviance			.7	16.03***	3.92	.59	3.2
AIC		137.90	143.20	131.17	131.25	134.66	135.46
BIC		142.39	152.18	143.14	146.22	152.62	156.41

Note †p<.10, *p<.05, **p<.01, ***p<.001, Model A: Unconditional Means; Model B: Unconditional Growth; Model C: Adding therapist warmth to husband; Model D: Adding therapist listener responsiveness; Model E: Adding therapist communication; Model F: Adding therapist dominance.

Figure 1. *Prototypical plot demonstrating trajectory of husband warmth toward wife over time in relationship to therapist warmth, one standard deviation above and below the mean*