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The Effect of Common Factor Therapist Behaviors on Change in Marital Satisfaction

Li Ping Claire Su-Kubricht

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

Doctor of Philosophy

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## ABSTRACT

### The Effect of Common Factor Therapist Behaviors on Change in Marital Satisfaction

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Doctor of Philosophy

Couple therapy has been proven to be successful in treating marital distress and mental health problems; however, not everyone benefits from couple therapy. Although research suggests that some couple therapists are more effective than others, little research has explored the in-session behaviors of effective couple therapists. The purpose of this study was to code the therapist behaviors of therapist warmth, empathy, validation, presence, collaboration, systemically-based techniques, and session structure in the first session of 17 Emotionally Focused Therapy cases of couple therapy to examine their ability to predict pre-therapy to post-therapy change in male and female marital satisfaction. The seven hypotheses were tested utilizing Bayesian structure equation modeling (BSEM). Results indicate that 13 of the 14 hypothesized relationships between therapist behaviors and change in marital satisfaction were not significant. Only therapist empathy was a significant predictor, but it unexpectedly predicted a decrease in female marital satisfaction over the course of therapy. Possible explanations for the findings and clinical implications were discussed.

Keywords: effective therapist, common factors, couple therapy

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### The Effect of Common Factor Therapist Behaviors on Change in Marital Satisfaction

Couple therapy has emerged as an effective modality to treat marital and mental health problems (Lebow, Chambers, Christensen & Johnson, 2012; Snyder, Castellani, & Whisman, 2006; Sprenkle, 2012). For example, findings have shown that couple therapy decreases emotional arousal in couple conflict (Baucom, Atkins, Rowe, Doss, & Christensen, 2015), increases emotional closeness (Doss, Mitchell, Georgia, Biesen, & Rowe, 2015), and increases marital satisfaction (Dalglish et al., 2015). A meta-analysis study found that the average person receiving marital therapy is better off than 84% of the untreated sample, and the improvement is generally sustained over a long period of time (Shadish & Baldwin, 2003).

Although research indicates couple therapy is effective overall, not everyone benefits from it. One review of therapy treatment for couple distress found that 70% of clients benefited from couple therapy, while the other 30% did not (Lebow et al., 2012). Another review of couple therapy reported that only half of study samples improved in relational quality (Snyder et al., 2006). Moreover, other findings indicate that nearly 27% of couples who were moderately distressed at time of treatment were separated or divorced at a 5-year follow up (Baucom et al., 2015; Marín, Christensen, & Atkins, 2014). Because not all couples benefit from couple therapy, researchers have been searching for factors that predict therapy success and failure in order to increase the proportion of couples who benefit from therapy.

In the search for variables that impact therapy effectiveness, therapist effects have emerged as an important factor. Indeed, there is substantial evidence from studies on individual therapy that some therapists are more effective than others, with the therapist accounting for about 7% of the variance of outcome in effectiveness studies (Baldwin & Imel, 2013). These studies have found that therapist effects are significantly more predictive of therapy outcome

than treatment effects, that is, what treatment modality was used in therapy (Baldwin, Wampold, & Imel, 2007; Okiishi et al., 2006). One study has examined therapist effects in couple therapy with 158 couples randomly assigned to and treated by 18 therapists in a naturalistic setting (Owen, Duncan, Reese, Anker, & Sparks, 2014). Consistent with previous studies in individual therapy, the therapist accounted for 8% of the variance in client outcomes and 10% of the variance in client alliance scores. Owen et al. (2014) concluded that therapist average alliance score and experience conducting couple therapy were salient predictors of client outcomes attributed to therapists.

The therapist-focused research generally has been divided into two categories: therapist effects and effective therapists. The term, *therapist effects*, involves conceptual, clinical, and statistical phenomena that can be attributed to the therapist when evaluating the efficacy of a psychological intervention (Lutz & Barkham, 2015). In general, therapist effects refer to the contribution made to the outcome variance that can be apportioned to therapists rather than other variables, such as client variables (Barkham, Lutz, Lambert, & Saxon, 2017). The implication of therapist effects is that it matters which therapist clients see because outcomes vary between therapists. Therapist effects research in individual psychotherapy has been well-established and validated in meta-analysis, clinical trials, and general practice as well as specialty clinics, and it has been shown to be predictive of treatment outcome (Baldwin & Imel, 2013; Brown, Lambert, Jones, & Minami, 2005; Crits-Christoph et al., 1991; Elkin, Falconnier, Martinovich, & Mahoney, 2006; Luborsky, McClellan, Woody, O'Brien, & Auerbach, 1985; Okiishi, Lambert, Nielsen, & Ogles, 2003; Okiishi et al., 2006; Wampold & Imel, 2015). However, research on effective therapists, despite a long history, is just beginning in the field of psychotherapy and there is a need for more research in the future (Wampold & Imel, 2015). By contrast, research on

*effective therapists* focuses on the characteristics and behaviors of effective therapists (Barkham et al., 2017). The effective therapists research asks the questions, “why are some therapists more effective than others?”

Despite arguments that therapists play an important role in successful couple therapy (Blow & Karam, 2017; Blow, Sprenkle, & Davis, 2007), as well as evidence that some couple therapists are more effective than others (Owen et al., 2014), very little research has examined effective therapists in relation to couple therapy. In relation to this lack of research, it is possible that the common factors literature may shed light on the behaviors of effective therapists.

Research has consistently found that different individual therapy models produce equivalent therapeutic outcomes, leading scholars to theorize that there are factors common among different therapy models influencing outcome (Lambert, 2013). The common factors literature shows that a combination of therapist interpersonal behaviors and therapy skills produce strong therapeutic outcomes, independent of the therapy model that is being used. Therapist behaviors that have been designated as common factors include empathy, warmth, and positive regard (Feinstein, Heiman, & Yager, 2015), while therapeutic skills focus on interpersonal interactions and process (Karson & Fox, 2010).

In recent years, MFT scholars have applied the concept of common factors to systemic therapy. In couple therapy, researchers argue that common factors must also include systemic conceptualization in therapeutic alliance and other dimensions of therapy (Blow & Sprenkle, 2001; Sparks & Duncan, 2010; Sprenkle & Blow, 2004; Sprenkle, Blow, & Dickey, 1999). Scholars also suggest that the therapist’s role in delivering these common factors in systemic therapy is more important than it is in individual therapy (Blow et al., 2007).

Although scholars have argued that common factors are important in the outcome in

couple therapy, no research has directly examined the relationship between therapist common behaviors and therapy outcome. Consequently, the purpose of this study was to examine in-session therapist behaviors and techniques in couple therapy from the common factor lens in order to determine what therapist behaviors are predictive of change in marital satisfaction during the course of couple therapy.

## **Literature Review**

### **Effective Therapists**

**Individual therapy.** Recognizing the importance of therapist variables on treatment outcomes, considerable research in individual therapy has attempted to determine the characteristics and behaviors of effective therapists. Researchers (Wampold, Baldwin, Holtforth, & Imel, 2017) have stated that no recent research has changed any of the conclusions reached in the Beutler and colleagues' (2004) comprehensive review of therapist variables. Thus, the conclusions of the Beutler review are viewed as still valid, even though they are more than a decade old.

Beutler and colleagues (2004) found that most demographic characteristics of the therapist in individual therapy were not associated with therapy outcome. They found that therapist age, gender, race/ethnicity, and professional degree were not predictive of therapy outcome. In addition, there is no consistent evidence that therapists who have experienced their own personal therapy have better outcomes. Although there are a small numbers of older studies that showed different results (Beck, 1988; Beck & Jones, 1973), most recent studies have found no relationship between matching therapist and client on demographic characteristics. The investigation of therapist training and experience have yielded mixed results (Blatt, Sanislow, Zuroff, & Pilkonis, 1996; Christensen & Jacobson, 1994; Tallman & Bohart, 1999). Researchers

have suggested that the outcomes of novice and experienced therapists are not very different for easier cases (Beutler, 1997; Beutler, Bongar & Shurkin, 1998), but experience is likely more important when it comes to treating more difficult clients and complex and long-term problems (Beutler et al., 2004).

Besides the demographic characteristics of therapists, researchers have found that other therapist factors, such as personality, values, attitudes, and beliefs, and cultural attitude, are also not predictive of therapy outcome. Little progress has been made in determining what values and beliefs are important to the practice of psychotherapy and how values and beliefs can be integrated into the practice (Beutler et al., 2004). Some research suggests that a match between the personality style of the therapist and the client might lead to improved outcome (Herman, 1998), but other research suggests exactly the opposite (Berry & Sippes, 1991).

In the midst of these non-significant findings, a few therapist factors have emerged as significant predictors of therapy outcome. One significant factor is the well-being of the therapist, with research consistently finding that therapists who have better emotional well-being also have better therapy outcomes (Beutler et al., 2004). There is also substantial evidence that the ability of a therapist to form a strong therapeutic alliance with the client is important (Baldwin et al., 2007; Beutler et al., 2004; Horvath, 2006). Two recent meta-analysis studies have shown that there is a significant association between the alliance in the early stage of therapy and the final outcome, with effect sizes ranging from .29 (Flückiger, Del Re, Wampold, Symonds, & Horvath, 2012) to .27 (Horvath, Del Re, Flückiger, & Symonds, 2011).

Another significant factor is therapist facilitative interpersonal skills. Anderson, Ogles, Patterson, Lambert, and Vermeersch (2009) used facilitative interpersonal skills (FIS), including verbal fluency, emotional expression, persuasiveness, hopefulness, warmth, empathy, alliance-

bond capacity, and problem focus, to code 25 therapists' responses to a challenging client through a video presentation at a college counseling center. Each therapist's FIS scores were then correlated with outcomes of their therapy cases at the counseling center. Results showed that therapist FIS was a strong predictor of client improvement in psychotherapy among 1,141 clients. Similarly, Schöttke, Flückiger, Goldberg, Eversmann, and Lange (2017) examined postgraduate students' responses via a structured interview and group discussion after viewing a provocative film in a 5-year psychotherapy training course in Germany to assess interpersonally related competencies and personal strengths. The responses were rated by experts and categorized into 5 dimensions: clarity of communication, empathy and communicative attunement, respect and warmth, management of criticism, and willingness to cooperate. The researchers found that therapists' facilitative interpersonal skills were predictive of better therapy outcome.

Deliberate practice, which refers to the amount of time a clinician spends in activities aimed at improving therapeutic performance, has also been found to be a characteristic of effective therapists. Chow and his colleagues used multilevel models to study the outcomes of 1,632 clients seen by 17 therapists in independent practice in the United Kingdom (Chow et al., 2015). They found that the amount of time therapists reported spending time on improving targeted therapeutic skills predicted therapeutic outcomes.

**Couple therapy.** In contrast to the extensive research on effective therapists in individual therapy, there is a dearth of research that has examined effective couple therapists. For example, therapists' demographic variables such as gender, age, professional experience, and relationship status have received very little attention from researchers. One study (Owen et al., 2014), however, did examine the effect of selected therapist characteristics on couple therapy outcome.

They found that therapists' gender did not predict outcome, but the amount of experience of the therapists in conducting couple therapy was positively associated with outcome.

Similar to individual therapy, there is substantial evidence that couple therapists' ability to establish a strong therapeutic alliance is an important predictor of couple therapy outcome (Anderson & Johnson, 2010; Anker, Owen, Duncan, & Sparks, 2010). Research has shown that a strong therapeutic alliance significantly increases couple satisfaction (Knerr & Bartle-Haring, 2010), decreases couple distress (Knobloch-Fedders, Pinsof, & Mann, 2007), and decreases negative psychological symptoms, such as anxiety and depression (Pinsof, Zinbarg, & Knobloch-Fedders, 2008) over the course of couple therapy. One study found that a strong alliance in couple therapy by session three is salient in producing positive therapeutic outcomes (Anker et al., 2010). A meta-analysis of the therapeutic alliance in couple therapy found an effect size for the relationship between therapeutic alliance and therapy outcome of .37 (Friedlander, Escudero, Heatherington, & Diamond, 2011).

Process research in Emotionally Focused Therapy (EFT; Johnson & Greenberg, 1985) has identified the salient in-session therapist behaviors that predict change in couples (Bradley & Furrow, 2004; Furrow, Edwards, Choi, & Bradley, 2012; Schade et al., 2015). One study examined the blamer-softening events with an emphasis on specific therapist behaviors (Bradley & Furrow, 2004). They found that therapist's facilitation of enactment and outlining a predictable pattern for client interactive responses led to change outcomes. In another study on therapist behaviors in EFT, therapist warmth was related to the warmth between couples in EFT sessions (Schade et al., 2015). The findings indicated that 62.9% of the variance in husband warmth toward wife was accounted for by therapist warmth to husband across time in therapy. Another study demonstrated that the therapist's emotional presence and corresponding evocative

vocal quality predicted heightened levels of client emotional experience in blamer-softening events in successful EFT softening attempts, compared to unsuccessful softening attempts (Furrow et al., 2012).

### **Common Factors of Therapist Variables**

**Individual therapy.** The concept of common factors in psychotherapy was first introduced to the literature in the mid 1930s and has received considerable attention in individual psychotherapy process literature since then. Saul Rosenzweig (1936) first suggested that effectiveness of psychotherapies stemmed more from their common elements than their specific methods. He pointed to how each therapy centered on the relationship between client and therapist. Carl Rogers brought another perspective to this conversation about shared elements in therapeutic relationship (Raskin & Rogers, 1989; Rogers, Kirschenbaum, & Henderson, 1989). He developed a manual-driven empirically-supported treatment, called person-centered therapy, based on the principle of empathic listening. His methods emphasized the common factor of the healing relationship and served as a guide to all therapists for the basic principles of treatment. He suggested there were three essential dimensions of the therapist that led to successful therapy: empathy, positive regard, and congruence. Empathy involves understanding the client's frame of reference and ways of experiencing the world. He defined it as therapist's ability and willingness to understand and accept client's thoughts, feelings, and struggles from the client's perspective (Rogers, 1961). The second core dimension of the therapist is positive regard, which conveys respect and acceptance and clearly represents an essential element of successful psychotherapy. Congruence refers to the therapist's ability to freely and deeply be himself or herself. Rogers believed that therapists need to be genuine and not deceive the client about his or her feelings.

Lester Luborsky and colleagues took Rosenzweig's (1936) term, "dodo bird verdict," and added the inspiration from a passage in *Alice in Wonderland* where "everybody has won and all must have prizes." They analyzed the impact of various treatments and concluded that all treatments, on average, had the same level of effects. They suggested that the essence of treatments lies not in the specific methods highlighted in models but in the common factors that underlie all good treatments (Luborsky, Singer, & Luborsky, 1975).

**Empirical evidence in individual therapy.** Therapist warmth is commonly reported to be an important common factor in psychotherapy literature, and research has consistently found that a high level of therapist warmth has shown to be positively associated with therapy outcome (Lambert & Barley, 2001). Studies have found that clients who reported successful therapy outcomes were more likely to perceive their therapist as warm, attentive, interested, understanding, and respectful (Strupp, Fox, & Lessler, 1969). Moreover, clients who received treatment from a therapist who was rated as warm had better global improvement in their presenting problem and were more likely to reach their therapeutic goals in post treatment and three-year follow-up (Green & Herget, 1991). In another study, Najavits and Strupp (1994) investigated the characteristics of an effective therapist from the client's perspectives. The results indicated that more effective therapists showed more positive behaviors and fewer negative behaviors than less effective therapists. The authors suggested that warmth, affirmation, and minimizing attack and blame are effective psychotherapeutic interventions.

Therapist empathy is another element of the most commonly examined therapist common factors (Lambert & Barley, 2001). Research has shown that empathy is consistently linked to positive client outcomes (Castonguay & Beutler, 2006; Elliott, Bohart, Watson, & Greenberg, 2011; Greenberg, Watson, Elliott, & Bohart, 2001; Orlinsky, Grawe, & Parks, 1994). For

example, Miller, Taylor, and West (1980) investigated the comparative effectiveness of various behavior approaches aimed at helping patients to control their alcohol consumption. The authors found a strong relationship between empathy and patient outcome obtained from the 6 to 8-month follow-up interviews. Therapists' empathy scores correlated ( $r = .82$ ) with patient outcomes.

Collaboration between the therapist and the client is also a salient element to facilitate positive therapeutic outcomes. A meta-analysis examined 19 studies, published between 2000 and 2009, with a total sample of 2,260 participants, on the relationship between goal consensus and collaboration and treatment outcomes (Tryon & Winograd, 2001). The findings indicated that therapist's collaboration on mutual goals and the processes to achieve these goals significantly increase positive outcomes. These findings suggested that outcome appears to be considerably enhanced when therapists are actively involved in a cooperative relationship. Beutler and his colleagues (Beutler, 2002; Beutler, Consoli, & Lane, 2005) also have discovered better treatment outcomes occur when therapists react to the client's needs and emotional states in sessions in order to build the collaborative relationship. They suggested that therapists should decrease directedness or control when client resistance is high, and vice versa (Beutler et al., 2005).

The importance of the therapist expressing positive regard for the client has been emphasized as a key therapist common factor in the literature since the 1950s (Rogers, 1957). Positive regard, or therapist affirmation of the client's worth as a person, has been linked to positive therapeutic outcomes for clients in 50% of cases (Orlinsky et al., 1994). In addition, therapist positivity and friendliness are consistently associated with favorable outcomes, while criticism/hostility has a negative association (Beutler et al., 2004). In another literature review,

Farber and Lane (2001) concluded that there is a significant positive association between therapist positive regard and therapeutic outcomes.

**Couple therapy.** In the last 15 years, scholars have applied the concept of common factors to couple and family therapy. These scholars believe that the common factors paradigm assumes that common mechanisms of change overlap across all effective psychotherapies, and couple and family therapy models are the vehicles through which common factors are potentiated (Sprenkle & Blow, 2004; Sprenkle, Davis, & Lebow 2009).

Although there is an overlap in common factors between individual and couple therapy, with couple therapy researchers recognizing the importance of warmth, presence, and empathy as important systemic therapy common factors, scholars have proposed the distinctive characteristics of common factors to couple and family therapy due to working with larger systems in therapy (Sprenkle et al., 2009). They categorize four common factors that are unique to couple and family therapy: conceptualizing difficulties in relational terms, disrupting dysfunctional relational patterns, expanding the direct treatment system, and expanding the therapeutic alliance. However, the limited direct inquiry into common factors in couple therapy tempers assertions linking common factors in individual therapy to couple therapy (Davis, Lebow, & Sprenkle, 2012).

As a result, the current common factors literature in couple and family therapy remains in the early stages of theory formation, consisting primarily of conceptual arguments and lists of proposed common factors without empirical support (Blow & Sprenkle, 2001; Davis & Butler, 2004; Davis et al., 2012; Sprenkle & Blow, 2004). Virtually all of the direct empirical support for common factors comes from the individual therapy literature.

An exception is two research articles that report on a study by Davis and Piercy (2007a; 2007b), who used grounded theory methodology to develop a preliminary meta-model of common factors in MFT. They analyzed data from interviews with MFT model developers (EFT, CBCT, and IFS), their former students, and their clients to examine the common factors through model-independent themes in therapist variables, client variables, the therapeutic alliance, therapeutic process, and expectancy and motivational factors. Although the findings indicated several therapist common factors (e.g. patience: respecting client's pace, caring yet firm and setting boundaries, cultural and religious sensitivity, ability to structure the sessions, balancing the alliances, maintaining repetition in therapy, increasing collaboration and accommodation, and creating safety), the sample was very small and consisted of a carefully chosen group of highly skilled clinicians. Hence, there is a need for additional research on the common factors of effective therapists in couple therapy.

### **Current Study**

There is little research that has examined effective therapists in couple therapy. Moreover, although the theory of common factors is being developed in the field of MFT, little research has empirically tested the role of common factors on the outcome of couple therapy. The exception is the EFT studies that examined the role of therapist empathy on facilitating blamer-softening events (Schade et al., 2015; Furrow et al., 2012). However, these studies examined the effect of therapist behaviors on a specific therapeutic event, rather than the overall outcome of couple therapy.

Therefore, the purpose of this study was to conduct a process study to examine the specific therapist behaviors that predict change in marital satisfaction among couples through the

common factor lens. We hypothesized that certain in-session therapist behaviors would facilitate change in marital satisfaction over the course of therapy:

- 1) Therapist warmth will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.
- 2) Therapist empathy will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.
- 3) Therapist validation will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.
- 4) Therapist presence will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.
- 5) Therapist collaboration will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.
- 6) Therapist systemically-based techniques will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.
- 7) Therapist session structure will significantly predict pre-therapy to post-therapy change in male and female marital satisfaction.

## **Methods**

### **Participants**

The data for this study came from a larger marital intervention study examining cardiovascular risk profiles associated with marital quality (Troxel, Braithwaite, Sandberg, & Holt-Lunstad, 2017). A total of 60 couples received therapy as part of the study, including 17 heterosexual married couples who received Emotionally Focused Couple Therapy at a university clinic in the western United States. Participants were recruited through flyers posted in the clinic

building, on campus, in the university departments of mental health fields, as well as various mental health clinics and libraries in the community. Participants were given \$250 and 12 sessions of free marital therapy as compensation for their participation. The monetary compensation was given to them at the end of the complete round of therapy sessions in order to encourage completion of all 12 sessions of therapy. Couples were given the Revised Dyadic Adjustment Scale (RDAS) to filter out those who did not meet distress criteria (Busby, Crane, Larson, & Christensen, 1995). Couples included in this study all scored at or below 52 on the RDAS, with at least one spouse scoring 48 or below, indicating at least partner was experiencing marital distress (Anderson et al., 2014).

Because only the sessions of the 17 couples who received EFT were recorded, and the design of the current study requires the coding of recorded therapist behaviors, these 17 EFT couples were the couples who were included in the current study. Within this smaller sample of 17 couples, the mean age for husbands was 36.12 ( $SD = 11.7$ ) and 32.06 ( $SD = 11.37$ ) for wives. The length of marriage averaged 9.0 ( $SD = 9.54$ ) years, with a range of .17 to 29 years. Couples had an average of 1.65 children ( $SD = 1.87$ ). The majority of participants identified as Caucasian, except one husbands (5.9%) who reported as Hispanic and one wife (5.9%) who reported as Native American. One husband (5.9%) and two wives (11.8%) did not report their ethnicity in this study. In terms of income, three (17.6%) couples reported an annual household income of  $\leq$  \$10,000, five (29.4%) couples reported an annual income between \$10,000 and 24,999, one (5.9%) couple reported an annual income between \$25,000 and 39,999, two (11.8%) couples reported an annual income between \$40,000 and 54,999, two (11.8%) couples reported an annual income between \$70,000 and 84,999, and three (17.6%) couples reported between \$85,000 and 99,999, and one (5.9%) couple reported an annual income of  $>$  \$100,000.

## **Procedure**

Couples began their 12 free marital therapy sessions after completing an initial screening. The therapists who conducted the 17 EFT cases were two male and two female students in a COAMFTE-accredited marriage and family therapy program. All four MS program student therapists began the study with between 250-400 hours of clinical experience. One student continued in the study after graduating from the master's program and beginning the doctoral program. These student therapists were recruited for the study based on their interests in EFT and agreement for providing 12 sessions of EFT therapy weekly to the couples in this study. Therapists received EFT training in a class designed to teach and refine couple therapy skills, and they read an article describing EFT fidelity (Denton, Johnson, & Burlison, 2009). In addition, they attended EFT group supervision sessions for an hour every other week with a professor who is a certified EFT supervisor over a 16-week period, as well as weekly individual supervision throughout the treatment. In addition, treatment fidelity was assessed at session 3, 7, and 11, using the Emotionally Focused Therapy-Therapist Fidelity Scale (EFT-TFS; Denton et al., 2009), which includes 13 skills that are fundamental to implementing EFT, such as validation of each partner, processing emotion, and use of enactments.

The video recordings of session 1 were coded for each case. Session 1 was selected for this study due to some evidence on early therapist behaviors as being predictive of therapeutic process (Russell, Shirk, & Jungbluth, 2008; Thomas, Werner-Wilson, & Murphy, 2005; Werner-Wilson, Michaels, Thomas, & Thiesen, 2003). Moreover, we had more complete data at session 1 due to client dropout. Coders were undergraduate students, without affiliation to the research study. Fourteen coders, including 2 male students and 12 female students, all of whom were

undergraduate students, participated in a research lab class in a university. All the coders were either majoring in family life or psychology.

The coders received training for one month by the primary investigators, a university professor and a Ph.D. graduate MFT student. They met once a week for two hours, as well as read about the coding system and practiced outside of the classroom. First, coders worked as a class to read and understand the detailed description of each code in the TGCSQ with relevant examples. They were then trained by watching three full sessions of therapy twice to understand a live representation of each code in therapy. These videos were from nationally prominent couple therapists doing couple therapy that were made commercially available for training purposes. Next, each coder shared their scores for each code while the trainers led a discussion about each of the designated codes with the group coming up with consensus scores. Initially, coders spent about 10 to 20 minutes before agreeing on a consensus score. Meanwhile, trainers provided clarification of what qualified as representative of the therapist behaviors being assessed. After four training sessions, including watching the three videos and the work outside of the class, there was a total of 20 training hours. The researchers decided that the coders were ready to code the videos used in these analyses once the coders took less than five minutes to decide on a consensus score as a group.

When the coding began, coders were assigned into teams of two to code full sessions of therapy. They were instructed to watch the entire 50-minute session twice before deciding on a value to give for each code. During the first viewing, coders attempted to get a global sense of session and notice certain therapist behaviors that were included in the coding system. During the second viewing, coders recorded the rating for each code based on the presence of that behavior during the session. Each coder independently watched each session twice and then

assigned values for each code. After independent coding, the two coders on the team came together to compare their scores. When there was a discrepancy, coders justified and explained their reasons for giving the scores. The team ultimately decided upon a consensus score after discussion or watching the relevant parts of recorded session together. This method of consensus coding is consistent with the procedures used by the developers of the coding system (Epstein, McDowell, & Evans, 2009; Evans, 2012).

### **Measures**

**Therapist behaviors.** The independent variable, therapist behaviors, was measured by using the Ratings of Therapists' General Clinical Skills/Qualities (TGCSQ; Epstein et al., 2009). The TGCSQ assesses two broad common factor components of therapist behaviors in couple therapy: relationship factors and technique factors. The relationship factors are composed of five aspects of therapist relationship behaviors toward clients: warmth, empathy, presence, validation, and collaboration. The technique factors are composed of two types of therapist behavior: use of systemically-based techniques and session structure. These seven behaviors are global codes, meaning that a single value is assigned to the behavior after watching the entire therapy session, with values ranging on a 5-point Likert type scale from 0 (*behavior not at all present during the session*) to 4 (*behavior very much present during the session*).

**Change in marital satisfaction.** The dependent variable, change in marital satisfaction, was measured by using the subscale of relationship satisfaction from the full 32-item version of Dyadic Adjustment Scale (DAS; Spanier, 1976). The DAS assesses marital quality by using four subscales: dyadic satisfaction, cohesion, consensus, and affective expression as well as the total score. The dyadic satisfaction subscale is composed of 10 items that measure aspects related to perceived satisfaction and stability of the marriage. Spanier stated that the subscales could be

used alone “without losing confidence in the reliability and validity of the measure” due to the format of scale for easy coding and scoring (1976, p. 22). The data indicated that the total score and the components have sufficiently high consistency to justify their use (dyadic satisfaction: .94, cohesion: .86, consensus: .90, affection expression: .73, and Dyadic Adjustment Scale: .96) (Sabourin, Valois, & Lussier, 2005). Marital satisfaction was measured twice during the course of therapy: pre-test at the first session and post-test at 12<sup>th</sup> session. The change score was calculated by subtracting the pre-test score from the post-test score. The range of change in male satisfaction is from -3 to 6 and the range of change in female satisfaction is from 0 to 6.

**Control variable.** The control variable, EFT fidelity, was measured by using Emotion-Focused Therapy-Therapist Fidelity Scale (EFT-TFS; Denton et al., 2009). Therapist fidelity within a specific model has been proven to be crucial to identify and replicate the in-session behaviors and processes that lead to effective outcomes (Shaw et al., 1999). For this reason, we controlled EFT fidelity in this study. The EFT-TFS is composed of 13 skills that are central to EFT practice. The 13 skills are related in theory and practice to the well-established steps and stages of EFT practice (Johnson, 2004). The EFT-TFS measure was tested as a reliable and useful measure of fidelity with a reliability range of .66 to .94. Each skill was coded by a trained rater using a 5-point Likert scale; 1 indicates poor demonstration of skill, 3 indicates adequate demonstration, and 5 indicates exemplary demonstration. The total score of 40 or greater indicates competent implementation of EFT and a score of 39 would represent an average of 3 on EFT-TFS items (Denton et al., 2009; Sandberg et al., 2015). The 3<sup>rd</sup>, 7<sup>th</sup>, and 11<sup>th</sup> sessions were rated across different points in therapy (beginning, middle, and end) by two different raters. The EFT fidelity score that we used in this study was a composite score from averaging all 3 sessions.

## Analysis

Bayesian structural equation modeling (BSEM) using open access software package R (R Core Team, 2016) in conjunction with JAGS (Plummer, 2013) and blavaan (Merkle & Rosseel, 2015; Rosseel, 2012), which efficiently provide for Bayesian SEM estimation, were used in this study. We selected R programming for this study because it handles the categorical independent variables, therapist behaviors, in our study (R Core Team, 2016). Although the therapist behavior variables could be considered ordinal variables, because the values range from 0 to 4, indicating increasing presence of the behavior, analysis of the frequency of the values indicated that the responses for each variable did not populate the full range of values and tended to cluster on only two values (see Table 2). Consequently, the variables are best characterized as categorical variables.

Multivariate structural equation modeling (SEM) is a popular analytic approach for testing hypotheses regarding clinical change, but is particularly infeasible with small samples (Kline, 2011). The problems associated with SEM in small samples include non-convergence, improper solution, and biased model fit (Gagné & Hancock, 2006). On the other hand, Bayesian estimates are more heavily weighted toward prior knowledge. The influence of prior distribution helps stabilize and anchor Bayesian parameter estimates when using small samples (Song & Lee, 2012). An important advantage of Bayes estimation is that it tests research questions directly and allows the use of data from previous research, while frequentist methods focus on testing against a null hypothesis (Kaplan, 2014). Therefore, Bayesian estimation was used to more precisely examine the model path due to the small sample size in this study (Ozechowski, 2014).

Moreover, the Bayes methods create posterior distributions that provides direct probabilities for the parameters. Bayes methods utilizes a 95% credibility interval to interpret the

posterior distribution, whereas frequentist methods utilize a 95% confidence interval. The difference is that with a credibility interval there is a .95 probability that the true value of the research parameter exists in the 95% credibility interval, whereas a 95% confidence interval for a parameter represents one interval out of an infinite number of intervals where the value of the actual parameter may exist (Paetzold, Rholes, & Andrus, 2017). Posterior distributions are also estimated through extensive numerical calculation relying on Markov Chain Monte Carlo (MCMC) analysis (Kaplan, 2014; Kruschke, 2015). The default non-informative prior distribution was used in this study due to lack of information from the previous studies on effective couple therapist behaviors on treatment outcomes.

The dependent variables, change in male and female marital satisfaction, were regressed onto the independent variables, therapist behaviors (warmth, empathy, validation, therapist presence, collaboration, use of systemically-based techniques, and session structure) while controlling EFT fidelity. The two dependent variables, change in male marital satisfaction and change in female marital satisfaction, were correlated to account for the non-independence of the data (see Figure 1). The missing value analysis showed approximately 22.94% of all values are missing (see Figure 2). Little's MCAR test indicated that missing data were missing at random (Little's MCAR test  $\chi^2 = 31.679$ ,  $df = 28$ ,  $p = .288$ ). MAR is considered the less serious pattern of missing data. According to Graham (2009), the problems are less serious if the data points were missing with a range of 5% or less in a random pattern from a large dataset. However, there was a substantial proportion of data missing from these data. Therefore, there is potential to create Type II error, missing a relationship in our research when in reality there is one. Thus, the strategy for handling missing data becomes important as the amount of missing data approaches 15-20% (Malhorta, 1987). Due to that reason, missing data in this study were handled with

multiple imputation using MICE package (van Buuren & Groothuis-Oudshoorn, 2011). Multiple imputation is considered a highly effective strategy for this study because it provides adequate results even in the presence of low sample sizes or high rates of missing data (Schafer & Graham, 2002). The analysis was conducted on the imputed data set.

### **Model Analysis**

In Bayesian analysis, two estimates of model adequacy, convergence and model fit, are salient. Convergence is assessed through the convergence statistic (C.S.) and the value of 1.002 or smaller is considered desirable. However, Gelman and colleagues (2004) suggests that values of 1.10 or smaller are sufficient for many analyses. Model fit is assessed with one index, the posterior predictive  $p$  values (PPP), with values of .5 indicating excellent model fit (Preacher & Kelley, 2011). Therefore, values below .25 or above .75 indicate poor fit and would result in inability to interpret results.

## **Results**

### **Preliminary Results**

The means for therapist behaviors, EFT fidelity, and change in male and female marital satisfactions are reported in Table 1. The distribution of therapist behaviors was clustered around values 3 and 4, except collaboration, which was clustered at value 1 and technique and structure, which were clustered around 2 and 3 (See Table 2). The mean of the EFT fidelity scale was 38.8, which is at about the cutoff score of 39; however, the frequency distribution of the scores indicated that 10 of the 15 therapists had a fidelity score of 39 or less, indicating a less competent implementation of EFT. The change in male satisfaction from pre-test to post-test indicates nearly half of sample reported decrease of marital satisfaction or remain the same at the post-test. However, the change of female marital satisfaction indicates that the majority of the sample

experienced an increase of marital satisfaction at the post-test (see Table 2). The paired  $t$ -test indicated that there is a significant change from pre-test to post-test for female marital satisfaction ( $t = -6.00$ ,  $df = 11$ ,  $p = .001$ ), but not for male marital satisfaction ( $t = -.54$ ,  $df = 12$ ,  $p = .60$ ). In addition, 17.6% ( $N = 3$ ) of male clients and 23.5% ( $N = 4$ ) of female clients showed clinically significant change from being distressed (below cut-off score of 97) at the pre-test to being adjusted (above cut-off score of 97) at the post-test.

The pooled results of correlation analysis (see Table 1) revealed that none of the predictor variables were significantly associated with the outcome variables for males and females. In addition, only validation was significantly correlated with empathy. The other therapist behavior predictor variables (therapist warmth, empathy, validation, presence, collaboration, systemically-based techniques, and session structure) were not correlated to each other. However, the non-significance of some of the moderate correlations may be due to the small sample size.

### **Path Model Results**

The model converged, with a C.S. of 1.0009 and DIC of 2776.4, yielded an excellent fit to the data (PPP = .49). The final analysis used 110,000 iterations with a burn-in of 10,000 iterations. Two chains were used. The model reached true convergence as the posterior distributions of main variables presented with high density and with a stable bell curve (see Figure 3 and 4), as well as trace plots showing a condensed horizontal band (Kaplan, 2014; see Figure 5 and 6).

Results indicated that, when controlling for treatment fidelity, the regression path of empathy and change in female marital satisfaction was found to contain parameter values that were estimated to be nonzero (see Table 3). The model value of the parameter was  $-.65$  with the 95% credibility interval from  $-3.83$  to  $-.29$ . Therefore, therapist empathy negatively predicts

change in female marital satisfaction over the course of therapy. However, we did not find any other parameters that were nonzero. Therefore, the therapist behaviors of warmth, validation, presence, collaboration, systemically-based techniques, and session structure did not predict change in male and female marital satisfaction. Moreover, therapist empathy did not predict change in male marital satisfaction.

### **Discussion**

We hypothesized that seven therapist behavior variables (warmth, empathy, validation, presence, collaboration, systemically-based techniques, and session structure) would predict change in male and female marital satisfaction from pre-test to post-test. However, the results indicate that only therapist empathy was negatively related to female marital satisfaction, and this finding was not in the expected direction. There was no significant relationship between the therapist behaviors of warmth, validation, presence, collaboration, systemically-based techniques, and session structure and the change in male and female marital satisfaction, as well as therapist empathy and change in male marital satisfaction.

The findings of this study, which found that 13 of the 14 hypothesized relationships between therapist behaviors and change in marital satisfaction were not significant. Previous research from both therapist-focused and common factors research in individual therapy has consistently found that therapist behaviors, such as warmth, empathy, validation, presence, and collaboration, predict positive treatment outcomes (Beutler et al., 2004; Wampold et al., 2017).

As an explanation for the non-significant findings, it is possible that other variables, such as client variables, may have influenced the actual correlation between therapist behaviors and therapy outcome that were not measured or examined in this study. Wampold and his colleagues (2017) have stated that client contribution plays an important role in the correlation between

therapist behaviors and therapy outcome. They suggest three ways to disaggregate therapist characteristics from other potential influences: 1) disaggregating the total correlation into patient level (within-therapist correlation) and therapist level (between-therapist correlation) parts by using multilevel models; 2) measuring therapist responses to the same therapeutic situation; 3) assessing characteristics of therapists outside of psychotherapy. Thus, the non-significant findings in the overall relationship between the effective therapist behaviors and change in marital satisfaction in this study may be due to the potential influence from other variances.

Another explanation for the non-significant findings is due to process-outcome correlation issues. Stiles (1988) and Marmar (1990) have suggested that the problems of finding the correlation between observable process variables and outcomes are lack of leverage, correlating processes measured at one point in treatment with outcome much later, and inappropriate aggregation, averaging process measures over heterogeneous sessions. The interpretation of therapist behaviors not significantly correlating to change in marital satisfaction in this study can be misleading and misrepresented because it overlooks within-study variation in client requirement for particular therapist behaviors and therapist responsiveness to those requirements. Thus, the view of process research focused on solely in-session interactions needs to be modified and include other contexts in order to avoid the problem of generalizing interactions to whole sessions or points of later outcomes.

The finding of mostly non-significant results may also be due to measurement issues. The Ratings of Therapists' General Clinical Skills/Qualities (TGCSQ; Epstein et al., 2009) uses a global coding format, which was measured on a 5-point Likert scale from 0 (*behaviors not presented at all*) to 4 (*behaviors presented very much*). The measure is based on a general overall evaluation of the use of therapist behaviors during the entire session, instead of counting a

specific number of behaviors toward each partner during the session. Similar to the Evan's (2012) study, she did not find any significance with the seven therapist behaviors predicting relationship satisfaction. However, previous studies (Thomas et al., 2005; Werner-Wilson et al., 2003) that have used coding systems to assess therapist behaviors in couple therapy have counted the frequency of specific therapist behaviors. These studies were able to find significant associations between therapist behaviors and therapy outcome. Moreover, their coding system coded therapist behaviors towards each partner separately, which yielded significant associations between therapist behaviors towards a specific partner and therapy outcome. Thus, using the system of counting the frequency of the therapist behaviors toward each partner separately may have produced more accurate results in this study.

Another possible explanation for the mostly non-significant results is that the TGCSQ did not measure the therapist behaviors that are central to EFT treatment, which focuses on managing couples' primary emotions and attachment needs. Sandberg and colleagues (2015) examined the reliability and measure of fidelity of the Emotionally Focused Therapy–Therapist Fidelity Scale (EFT-TFS; Denton et al., 2009) and found that the EFT-TFS can differentiate effectively between high and low fidelity EFT. In addition, the scale, based on EFT principles, suggest that certain therapist behaviors seem to be more predictive of high fidelity EFT, such as management of couples' interaction, managing defensive responses, and maintaining the session focus on primary emotion and attachment needs. Thus, certain behaviors from the TGCSQ, such as collaboration, systemically-based techniques, and session structure, may not be important or used less frequently when therapists use EFT.

The one significant relationship that was found in the study, that therapist empathy was negatively associated with female therapy outcome, was unexpected and not supported by the

previous research in individual psychotherapy (Castonguay & Beutler, 2006; Greenberg et al., 2001; Miller et al., 1980; Orlinsky et al., 1994). However, although research in individual psychotherapy has found that therapist empathy significantly predicted positive treatment outcomes, it is important to note that there are more complex system dynamics when therapists work with a couple system (Sprenkle et al., 2009). A possible explanation for this unexpected finding may be that there is an unbalanced therapeutic alliance and trust between couples and therapist. It is possible that the therapist might have expressed more empathy toward the male partner and caused the female partner to believe that the therapist agreed with his side of story more than hers, which undermined her progress in therapy. The TGCSQ (Epstein et al., 2009) that we used in this study was a general coding for therapist behaviors in session 1. The therapist behaviors toward male or female partners were not coded separately in this study. Therefore, there may have been a discrepancy of therapists' expression of empathy between the two partners that was not measured in this study.

Another explanation to the finding that therapist empathy significantly predicted a decrease in marital satisfaction among females is that therapists who participated in this study may have used empathy less effectively in session to compensate for their anxiety and inexperience in conducting couple therapy or EFT. This explanation is plausible because none of the therapists were licensed MFTs or officially certified EFT therapists; moreover, the distribution of EFT fidelity indicates that the majority of cases were below the cut-off score for EFT fidelity. As a result, they may have used empathy as a basic therapeutic skill, as well as a key element in EFT, inappropriately to compensate for their lack of confidence and skills to effectively facilitate EFT during couple therapy. Bartle-Haring and colleagues (2012) examined differences in therapeutic alliance and its trajectory depending on case type (individual vs.

couple therapy), therapist experience, and therapist gender. They found that therapist experience was a significant predictor of the female partners' variance in the rate of change in the therapeutic bond in couple therapy. In other words, those female partners in couple therapy who had therapists with relatively more experience showed a steeper increase in the perception of trust in their therapist than did those who had therapists with relatively less experience. The amount of therapist experience in conducting couple therapy was also positively associated with treatment outcome in previous research (Owen et al., 2014). It is worth noting that when therapists are truly empathic, they attune to their clients' needs and adjust their way and frequency in expressing empathy instead of parroting clients' words, especially when clients experience negative in-session reactions to their therapist or shame-inducing vulnerability (Duan & Hill, 1996; Martin, 2000). Empathy in the TGSCQ was measured by the frequency of therapist's reflective statements, which might not measure the depth and description of true empathy. It appears that there might have been more factors that influence the relationship between therapist behaviors and treatment outcomes that need to be examined in the future research.

### **Limitations**

This study attempts to examine therapist behaviors on change in marital satisfaction over the course of couple therapy. As is common in preliminary studies of therapist variables, there are a number of limitations in this study. First, the TGCSQ measure in this study may not be the best measurement to examine therapist behaviors on change in marital satisfaction. Although TGCSQ is based on previous common factor research, the measure itself has not yet been empirically validated. It is possible that TGCSQ may not be a global construct in measuring therapist behaviors as well as may not examine the different constructs toward male and female.

TGCSQ was selected for this study due to the lack of empirically validated measures on therapist variables in the couple and family therapy field. Therefore, more research on therapist variable measures needs to be done in order to validate the most appropriate use for therapist variables. Second, the sample size in this study was typical of a preliminary study (17 couples, 4 therapist), but it was small, which limits the generalizability of the study. Thus, the data from a larger sample and multiple clinical sites would better represent the general population of clinical couples and provide enough statistical power to utilize multilevel modeling for all levels of analysis. Third, the clinicians who participated in this study were unlicensed and in the midst of clinical training. Future studies would benefit from using a broader range of therapists in terms of experience, training, and practice sites. Fourth, the therapist behaviors presented in this study may be limited to represent the theory and treatment principles found in other couple therapy modalities besides EFT. Finally, the process-outcome correlation in this study might be questionable in finding and interpreting correlation between therapist behaviors and change in marital satisfaction. Other approaches to multivariate strategies that take into account the sequential dependencies of process data and interaction of process variables from potential variances may precisely unfold the various dimensions of treatment process.

### **Clinical Implications**

Research in psychotherapy has repeatedly emphasized the importance of therapists' contribution to effective therapy. However, it is also important to note that other variables besides in-session therapist behaviors also contribute to outcomes in therapy (Shamoon, Lappan, & Blow, 2017). Although our study found little evidence that therapist behaviors are important in couple therapy outcome, it suggests the complexity of relational dynamics present in couple therapy that needs to be incorporated in future research on effective therapists. It may be that the

correlation between therapist behaviors and outcome is not simple in the sense that because positive in-session therapist behaviors are present in therapy, there will be positive outcomes. Scholars have suggested that four sources of variance, such as the therapist, the client, their interaction, and system improvement, can often influence and create different dynamics in the overall correlation (DeRubeis, Brotman, & Gibbons, 2005).

The findings about therapist empathy in couple therapy suggests that therapists' effective use of empathy in couple therapy may be more nuanced than previously recognized by scholars. For example, it is important for therapists to focus on the use of empathy with the understanding of the need to maintain a balanced alliance with both partners. Therapists also need to be attuned and individualize empathy responses to particular clients. For example, a meta-analysis study on empathy and treatment outcome found that certain fragile clients may find the usual expression of empathy too intrusive, while hostile clients may find empathy too directive (Elliott et al., 2011). Therefore, therapists need to know when and how to respond empathically in order to respect clients' boundaries.

Therapists and scholars continue to support the ideas that the role of therapist is critical in the delivery of therapy and that skillful therapists are able to facilitate improvement in couple therapy (Blow & Distelberg, 2006; Blow et al., 2007). According to MFT theory, as well as research in individual therapy, the seven therapist behaviors in our study still need to be emphasized and implemented in the MFT coursework (Davis et al., 2012; Wampold et al., 2017). However, additional therapist behaviors need to be added to the research agenda, and more nuanced methods for coding therapist behaviors need to be developed to better capture the complex dynamics of couple therapy. Thus, the future research in the MFT field needs to focus on specific therapist behaviors and expand to take into account all of the relational dynamics and

variances present in couple therapy as well as developing measures that accurately examine variances between therapist and clients. This line of research needs to continue in order to help therapists and researchers understand more about what is important in training and supervising therapists in couple therapy.

### **Conclusion**

We argued at the beginning of this paper that certain therapist behaviors predict the change in marital satisfaction during the course of therapy. The findings that we have presented suggest that only therapist empathy negatively predicts change in female marital satisfaction. This is important for therapists working with different complexities of cases, such as couples and families, because it highlights the complexities in working with larger system and difficulties and struggles that MFT researchers face in precisely capturing behaviors of effective couple therapists. While this study does not offer a conclusive answer to the questions of effective couple therapist behaviors, it does emphasize the need to expand and continue this line of research. We would hope that future research would develop an empirically validated measure to accurately examine the therapist behaviors toward each partner as well as more sophisticated methods to disaggregate therapist characteristics from other potential influences. We would hope that future effective therapist research would guide practice and supervision to train couple therapists on specific behaviors facilitating treatment outcome. Finally, we hope that other researchers will join our efforts to further refine effective couple therapist theory, research, and training.

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Figure 1 Model with therapist predicting change in marital satisfaction

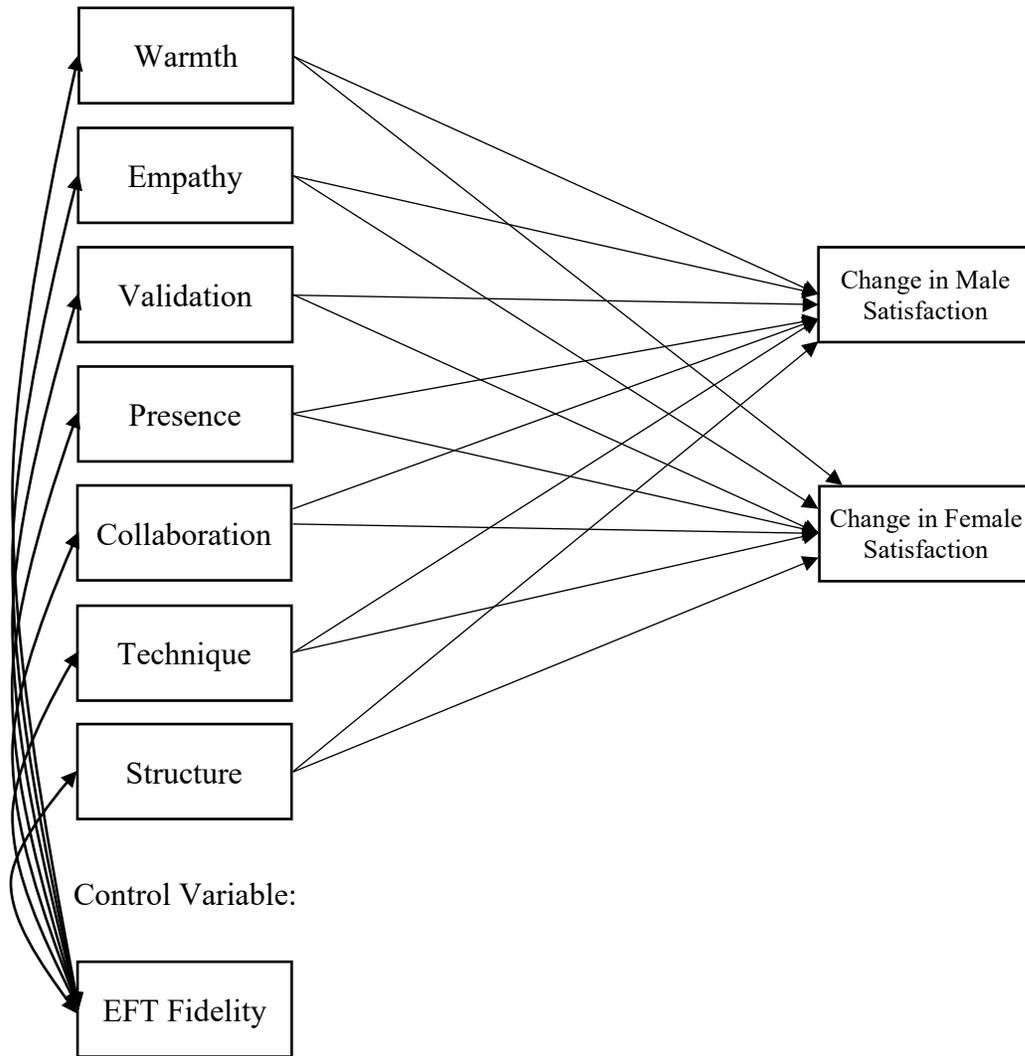


Figure 2 Missing data pattern for all model variables

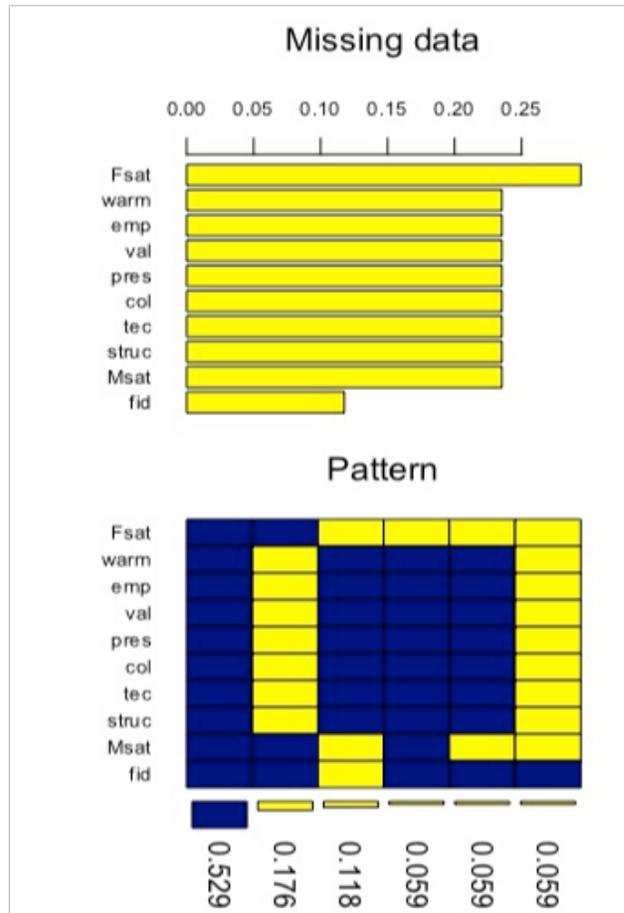


Figure 3 Posterior distributions for male regression paths

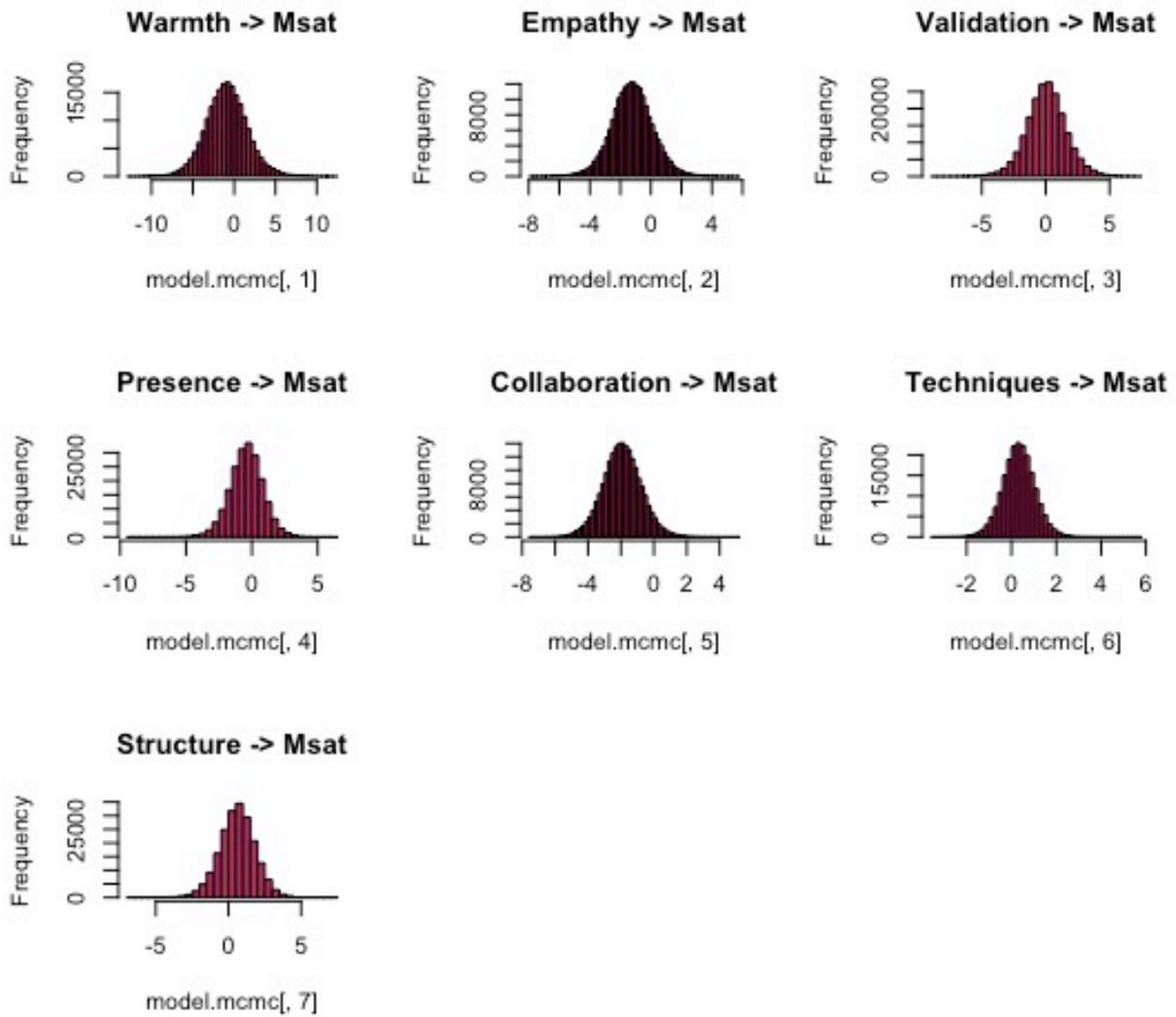


Figure 4 Posterior distributions for female regression paths

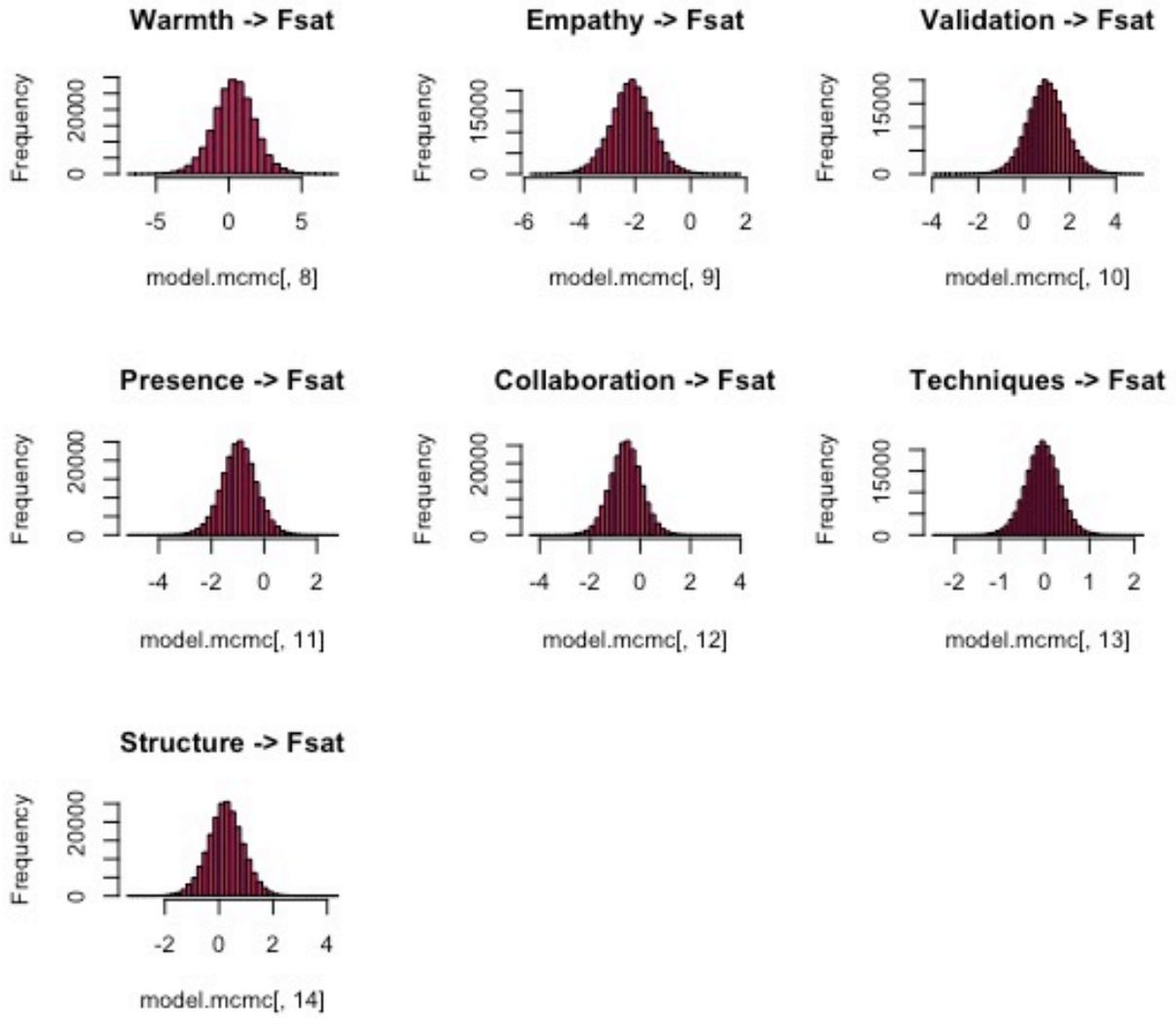


Figure 5 Trace plots for male regression paths

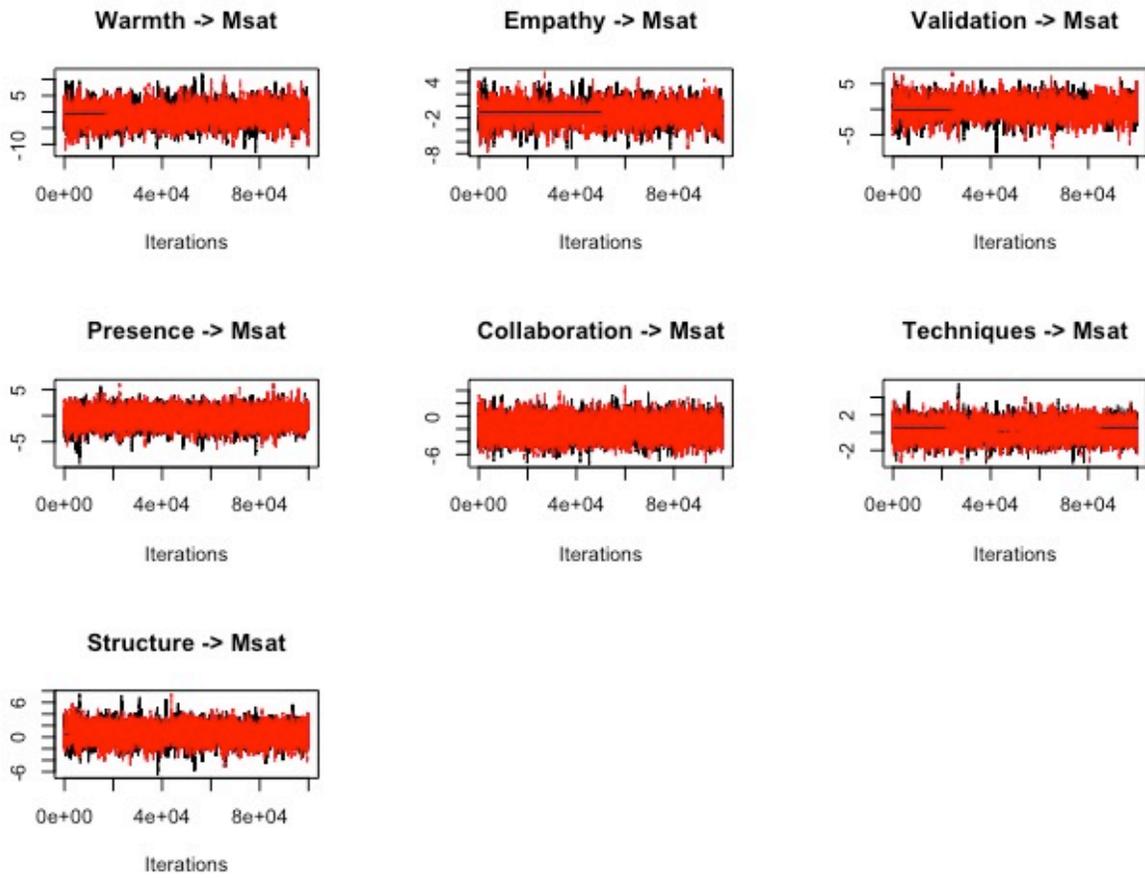
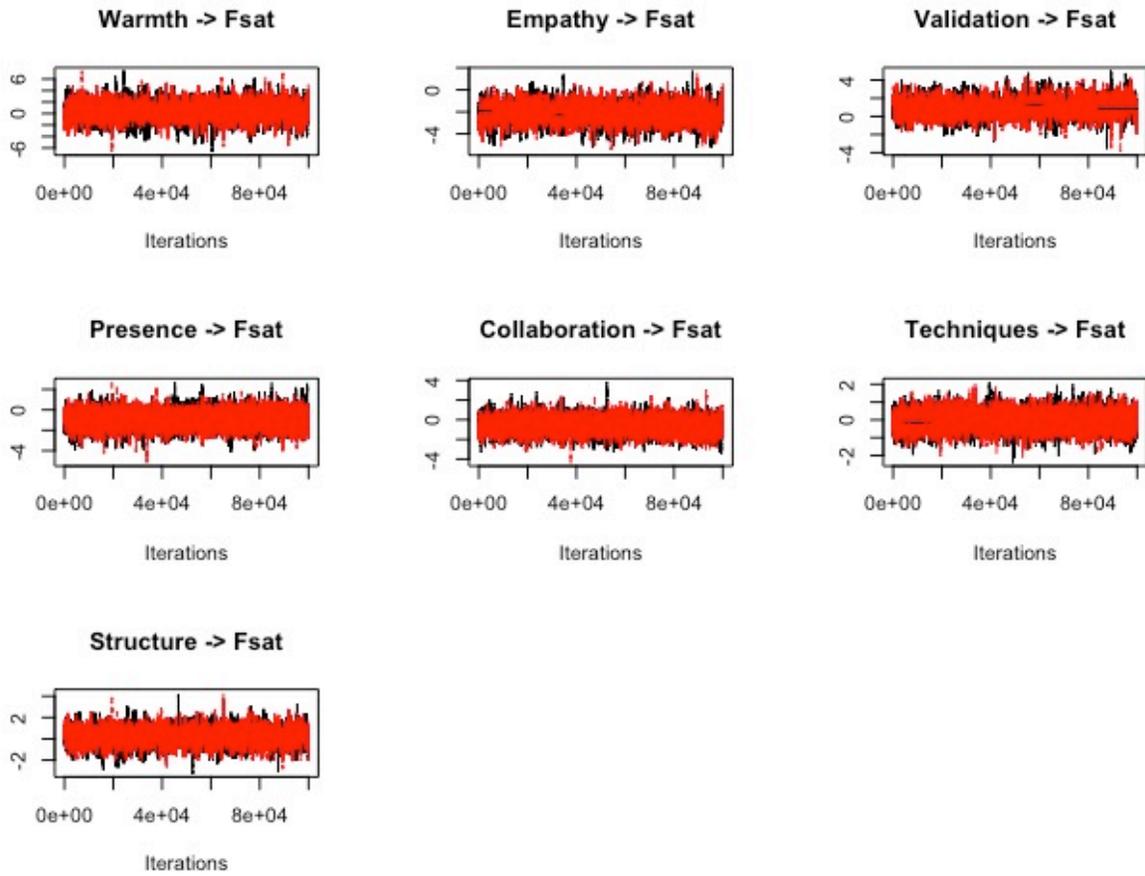


Figure 6 Trace plots for female regression paths



*Table 1 Correlations for all variables*

	Mean (SD)	1	2	3	4	5	6	7	8	9	10
1. Warmth	3.41 (.93)	1									
2. Empathy	3.17 (.87)	.25	1								
3. Validation	3.00 (.89)	.39	.73**	1							
4. Presence	3.26 (.73)	.52	.05	.28	1						
5. Collaboration	1.16 (.74)	.24	.13	.31	.48	1					
6. Technique	2.28 (1.02)	-.00	.29	.22	.02	.01	1				
7. Structure	2.62 (1.19)	.53	.45	.35	.55	.28	.02	1			
8. EFT fidelity	38.80 (7.19)	.18	-.18	.03	.16	.28	.16	.11	1		
9. Male Sat Change	.46 (3.00)	-.35	-.46	-.45	-.33	-.45	-.18	-.29	-.07	1	
10. Female Sat Change	3.04 (1.77)	-.22	-.47	-.23	-.18	-.25	-.26	-.10	.21	.22	1

Note: \*\* $p < .01$ , \* $p < .05$

*Table 2 Frequencies for model variables*

	Range	0	1	2	3	4
Therapist Warmth	2-4			4		9
Therapist Empathy	1-4		1	1	5	6
Therapist Validation	1-4		1	2	6	4
Therapist Presence	2-4			2	6	5
Therapist Collaboration	0-2	3	6	4		
Therapist Technique	0-4		3	4	5	1
Therapist Structure	1-4		2	3	7	1

	Range	29-39	40-49	50-59
EFT Fidelity*	29.33-56.5	10	4	1

	Range	-3	-2	-1	0	2	4	6
Male Sat Change	-3-6	1	4	1	3	1	1	2

	Range	0	1	2	3	4	6
Female Sat Change	0-6	1	1	2	4	2	2

Note: \* A score of 40 or greater as competent implementation of EFT (Sandberg et al., 2015)

A score of 39 equals an average of "3" on the EFT-TFS items (Denton et al., 2009)

*Table 3 Model results*

Regression Path	Beta	95 % Credibility Interval	
		Lower 2.5%	Upper 2.5%
Warmth → Male Marital Satisfaction	-.17	-5.57	3.25
Empathy → Male Marital Satisfaction	-.35	-4.61	1.54
Validation → Male Marital Satisfaction	-.01	-3.01	2.90
Presence → Male Marital Satisfaction	-.12	-3.75	2.48
Collaboration → Male Marital Satisfaction	-.27	-3.53	1.08
Techniques → Male Marital Satisfaction	-.04	-1.69	1.41
Structure → Male Marital Satisfaction	.17	-1.96	3.40
Warmth → Female Marital Satisfaction	-.07	-2.96	2.27
Empathy → Female Marital Satisfaction	-.65	-3.83	-.29
Validation → Female Marital Satisfaction	.35	-.68	2.73
Presence → Female Marital Satisfaction	-.30	-2.80	.76
Collaboration → Female Marital Satisfaction	-.11	-1.69	.91
Techniques → Female Marital Satisfaction	-.04	-.97	.76
Structure → Female Marital Satisfaction	.29	-.60	2.48