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# An Examination of Change Processes in Integrative Behavioral Couple Therapy

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Psychology

by

Meghan Mary McGinn

2012

# ABSTRACT OF THE DISSERTATION


An Examination of Change Processes

in Integrative Behavioral Couple Therapy

by

Meghan Mary McGinn

Doctor of Philosophy in Psychology

University of California, Los Angeles, 2012

Professor Andrew Christensen, Chair

In an IBCT intervention called "empathic joining," couples are encouraged to express greater vulnerability around problem areas in their relationship as a means of increasing their intimacy and understanding of one another. In the first study of this dissertation, sessions of couple therapy were coded for the clients' expression of soft emotions (e.g., fear) and hard emotions (e.g., anger) and the partners' validation or invalidation of one another to determine whether these behaviors change over the course of therapy and whether they differ for couples who ultimately improve in couple therapy compared to those who do not. Results indicated that hard expression and invalidation decreased over time for wives and, on average, couples that improved in therapy were more frequently validating of one another in session. The second study examined whether particular therapist behaviors were associated with client emotional expression and validation. Results showed that therapist validation was associated with greater

soft expression for both husbands and wives and with more instances of “successful empathic joining,” while interruption by the therapist was associated with frequency of invalidation and higher hard expression. Finally, the third study looked at whether processes occurring in session were related to changes in behavior and/or acceptance outside of session, and found that in-session wife hard expression and validation predicted positive change in the frequency of target behaviors outside of session. Overall, the studies suggest that in-session processes around building understanding (i.e, validation) and de-escalation (i.e., decreasing hard expression/invalidation) are important towards changing behaviors occurring outside of session and ultimately in improving relationship satisfaction.

The dissertation of Meghan Mary McGinn is approved.

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2012

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**McGinn, M. M**., Christensen, A., & McFarland, P. T. (2008, November). *Consequences of demand/withdraw within a sequence of conflict*. Poster session presented at the annual convention of the Association for Behavioral and Cognitive Therapies, Orlando, FL.

**McGinn, M. M.**, Christensen, A., & McFarland, P. T. (2007, November). *Demand/withdraw and the sequence of conflict*. Poster session presented at the annual convention of the Association for Behavioral and Cognitive Therapies, Philadelphia, PA.

Clinical trials have demonstrated that couple therapy is effective in increasing marital satisfaction and decreasing the probability of separation or divorce; however, studies that have compared two or more types of couple therapy have revealed very few between-treatment differences (Shadish & Baldwin, 2003). This has led many researchers in the field to call for a shift in focus toward more in depth research on *how* and *why* relationships improve during treatment (Heatherington, Friedlander, & Greenberg, 2005). A useful framework for understanding how change occurs in therapy, shown in Figure 1, was proposed by Doss (2004). In this model, there are three main components of change: change processes, change mechanisms, and therapy outcome. Change processes are the in-session events that are considered the "active ingredients" of the therapy, and are further broken down into therapy change processes, which include characteristics of the intervention and behaviors of the therapist, and client change processes, or the client's response to intervention. For example, in traditional behavioral couple therapy, a communication training intervention would be a therapy change process, and the use of active listening skills in session might be a client change process. The in-session change processes lead to intermediate changes that occur outside of session (e.g., use of active listening outside of session). These outside-session changes, known as change mechanisms, lead to the ultimate outcome of therapy (e.g., increases in relationship satisfaction). To date, research on Integrative Behavioral Couple Therapy (IBCT) has evaluated therapy outcome and potential mechanisms of change, but there has been less attention devoted to client and therapy change processes within sessions.

IBCT was developed in the early 1990s by Andrew Christensen and Neil Jacobson (Jacobson & Christensen, 1998) in an effort to address some of the limitations of Traditional Behavioral Couple Therapy (TBCT). Thus, while IBCT includes some TBCT techniques aimed

at directly altering behaviors in one partner that are distressing to the other, it primarily attempts to promote acceptance between partners. The acceptance-focused interventions include empathic joining, in which clients are encouraged to express greater vulnerability as a means of developing intimacy and understanding around their differences, unified detachment, in which clients are shaped toward having non-blaming discussions of their relationship patterns, and tolerance building, in which clients learn to tolerate or accommodate certain behaviors of their partner. Although IBCT has three clinical trials to support its efficacy as a viable treatment for couple distress (e.g., Christensen et al., 2004), there is less research examining the process by which these interventions lead to greater acceptance and ultimately to favorable outcomes.

There is some evidence supporting acceptance as a mechanism of change in IBCT. Doss, Thum, Sevier, Atkins, and Christensen (2005) examined the frequency and acceptability of client-identified target behaviors as potential change mechanisms in a clinical trial of 134 moderately to severely distressed couples who received TBCT or IBCT. TBCT led to greater changes in frequency of targeted behavior than IBCT early in therapy, while IBCT led to greater changes in acceptance of targeted behavior than TBCT both early and late in therapy. Across therapies, changes in the frequency and acceptability of target behaviors were related to changes in relationship satisfaction in early therapy, but only increases in acceptability were related to increases in satisfaction in later therapy, suggesting that acceptance may play a particularly important role in late-therapy change.

There is also evidence that client behaviors during therapy sessions differ between IBCT and TBCT. Cordova, Jacobson, and Christensen (1998), in a study of 12 couples from an early trial (Jacobson, Christensen, Prince, Cordova, & Eldridge, 2000), examined the extent to which couples in IBCT and TBCT displayed “hard” emotions (e.g., anger), “soft” emotions (e.g., fear),

"detachment" (non-blaming problem discussion), and interactional behaviors that are problematic for them (e.g., demand/withdraw pattern). IBCT and TBCT couples did not differ on detachment or soft emotion early in therapy, but IBCT couples displayed significantly more of each in the middle and late sessions. Across groups, increases in soft emotion and detachment, as well as decreases in problem behaviors, correlated with improvements in marital satisfaction. This suggests that the use of acceptance-based strategies is related to outcome, but we are still limited in our understanding of how these processes work. Further, the reciprocal relationship between therapy and client processes and the relationship between within-session client behavior and out-of-session behavioral change has not been examined in IBCT.

The proposed dissertation project will address this gap in a series of three studies utilizing a subsample of couples (N=64) who participated in the IBCT arm of a clinical trial of IBCT and TBCT. The first study examines emotional expression and partner responsiveness as client change processes during IBCT sessions. The aims are to determine a) whether coded soft expression, hard expression, validation, and invalidation differentiate those couples who improve in therapy from those who do not, b) whether these variables change over time, and c) how these in-session behaviors relate to each other within sessions. The second study uses a mixed method approach to examine therapist behaviors during "successful" empathic joining interventions (high levels of expressed vulnerability and partner responsiveness) compared to "unsuccessful" empathic joining interventions (low responsiveness or low vulnerability). The aims are to a) describe what therapist behaviors differentiate successful from unsuccessful empathic joining in a qualitative analysis, b) use the qualitative analysis to create a quantitative coding system that can be applied to a second sample of therapy sessions and c) determine whether the coded therapist behaviors are related to client behaviors in a confirmatory analysis. The third study

attempts to link client change processes to change mechanisms and the therapy outcome by examining a) the association between in-session processes (soft expression, hard expression, validation, and invalidation) and out-of-session changes in the frequency and acceptability of target behaviors, b) the association between in-session behaviors and changes in relationship satisfaction, and c) whether the relationship between in-session processes and relationship satisfaction is mediated by changes in the frequency and acceptability of target behaviors.

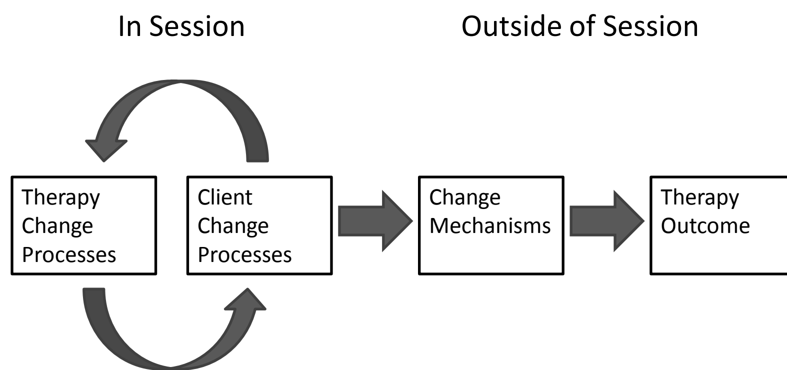



*Figure 1.* Components of change in psychotherapy, Doss (2004)

## Client Change Processes in IBCT: The Role of Emotional Expression and Partner Responsiveness

In contrast to earlier behavioral approaches to couple therapy, Integrative Behavioral Couple Therapy (IBCT) primarily seeks to build intimacy, understanding, and acceptance of differences between partners as opposed to directly attempting to change client behaviors. Within sessions, the main strategy for promoting intimacy is an intervention known as *empathic joining*. In empathic joining, the therapist focuses on the emotional experience of each partner and validates the truth in each partner's experience, especially the experience of "softer," more vulnerable emotions such as sadness, fear, or embarrassment. An intimate event is achieved not simply through the expression of vulnerability, however, but occurs when the partner responds in a way that is reinforcing rather than punishing (Cordova & Scott, 2001). While there is evidence linking greater expressed vulnerability to better outcomes in IBCT (Cordova, Jacobson, & Christensen, 1998), partner responsiveness during therapy has not been examined empirically. It is not clear whether there is a therapeutic effect of vulnerable expression in the absence of immediate reinforcement from the partner. Furthermore, we do not know the extent to which these variables change over the course of therapy or which behaviors or sequences differentiate couples who improve in their relationship satisfaction by the end of treatment from those who do not improve.

A client's expression of vulnerability during a therapy session often represents a departure from the couple's usual way of interacting. Typically, couples who come into therapy are stuck in destructive interaction cycles in which blaming statements and expressions of hard emotions (e.g., anger) in one partner are met by defensiveness, reciprocal anger, or withdrawal in

the other, leaving couples in a mutual trap where neither partner is able to have his or her needs met by the other. In theory, when a blaming partner expresses vulnerability instead, the other partner should be more likely to respond with empathy or validation and less likely to respond in ways that are punishing or invalidating. There is some evidence to support this assumption from the Emotion-Focused Couple Therapy (EFT) literature. Greenberg, Ford, Alden, & Johnson (1993) found that greater emotional experiencing, rated on a scale ranging from superficial emotional involvement at the low end to exploration of new feelings leading to greater self-understanding at the highest level, was related to higher affiliative responses from the partner. In addition, the disclosure of vulnerable, attachment-related emotions were found to predict successful "softening events" in which a partner who was previously critical or blaming expresses vulnerability and a need for comfort or reassurance from the other partner, who in turn responds with acceptance (Bradley & Furrow, 2004). We would expect that a similar relationship between expressed vulnerability and partner responsiveness exists during empathic joining events in IBCT, but to date, this has not been demonstrated empirically.

Partner responsiveness can be defined by both the presence of validating behavior, as well as the absence of invalidating or punishing behavior. Indeed, Cordova & Scott (2001) described the formula for intimacy as a cumulative ratio of these types of responses. When vulnerability is met with validation proportionally more than invalidation, couples develop intimate safety. In therapy, the therapist both models and reinforces validating responses and attempts to prevent further invalidating responses from the partner. Thus we would expect partner responsiveness to increase over the course of therapy, with greater increases related to better outcomes.

Gender may also play a role in the degree to which an individual expresses emotions or is responsive to one's partner. Previous observational studies of couple interactions suggest that women are more emotionally expressive, both in terms of positive and negative emotions, even when men and women are experiencing the same levels of these emotions internally (Kring & Gordon, 1998). Women have also been found to be more responsive to their partner's distress than men (Neff & Karney, 2005). In the context of therapy, greater expression from a partner who is typically less expressive, or greater responsiveness from a partner who is typically less responsive, may in fact have a larger impact on therapy outcome. Thus, gender could potentially moderate the relationship between vulnerability, responsiveness, and outcome, such that greater vulnerability and responsiveness for husbands is more strongly related to improvement in therapy than for wives.

The current study examined client processes during IBCT therapy sessions, specifically, clients' expression of soft (vulnerable) emotions, expression of hard emotions, validation of the partner, and invalidation of the partner. Our first aim was to differentiate between couples who improve in relationship satisfaction over the course of treatment (classified as recovered or improved) and couples who do not improve in treatment (classified as unchanged or deteriorated) on these processes. We predicted that the sessions for improved couples would include higher levels of soft expression and validation, and lower levels of hard expression and invalidation. In addition, we looked at whether these processes change over time, with the prediction that hard expression and invalidation would decrease over time, while soft expression and responsiveness would increase, particularly for those who improve in treatment. We also examined the role of gender in these processes. We predicted that wives would express more

emotion and be more validating on average, and that increases in husbands' soft expression and validation would show a stronger relationship with improvement status compared to wives.

A second aim was to observe relationships among the client process variables within sessions. The process variables for each partner were measured in 5-minute segments during each of 3 sessions. We predicted that segments with greater soft expression would increase the likelihood of partner validation and decrease the likelihood of partner invalidation, while segments with greater hard expression would increase the likelihood of partner invalidation and decrease the likelihood of partner validation. We also observed whether these relationships changed over the course of therapy, whether they differed by gender, and whether they differed for couples who improve in therapy compared to those who do not. We predicted that the relationship between soft expression and validation would increase over time, and be stronger for improved couples compared to couples that did not improve.

## Method

### Participants

Sixty-four couples who participated in the Integrative Behavioral Couple Therapy arm of a randomized controlled trial comparing IBCT to Traditional Behavioral Couple Therapy (TBCT) were selected for this study. The full sample for the clinical trial contains 134 moderately to severely distressed couples who were recruited for participation in a study of marital therapy at the University of California, Los Angeles (UCLA) and the University of Washington (UW). Sixty-six of the 134 couples were randomized to IBCT. One couple was excluded from the current sample because there was not therapist data on the sessions, which was required for the selection procedure (see "Selection of sessions" below), and one couple was excluded because they did not participate beyond the initial assessment. For a complete

description of recruitment procedures and inclusion criteria for the larger study, see Christensen, Atkins, Berns, Wheeler, Baucom, and Simpson (2004).

## Procedure

**Therapy.** As part of a clinical trial, couples completed a maximum of 26 therapy sessions, with a mean of 23.5 sessions (*SD* = 4.7) for IBCT couples. Therapy sessions were required to be completed within a year of the couple's intake assessment (median weeks to completion = 36). All therapy sessions were videotaped. Therapists were trained and supervised in IBCT according to the treatment manual (Jacobson & Christensen, 1998). In IBCT, the therapist begins with an assessment and feedback portion of treatment, including 1 joint and 2 individual assessment sessions (sessions 1-3), followed by a feedback session (session 4) in which the therapist presents his or her initial formulation. In the remaining sessions, the therapist introduces a variety of intervention strategies aimed at acceptance or change as appropriate given the couple's formulation.

**Assessment.** Also as part of the clinical trial, formal assessment measures were administered at pre-treatment, 13 weeks after the start of therapy, 26 weeks after the start of therapy, and following the final session of therapy. Couples completed a battery of self-report measures and, on some occasions, observational measures, of individual and relationship functioning. The assessment measures of relevance to the current study are described under "Measures."

**Selection of sessions.** For the proposed study, one early, one middle, and one late-stage therapy session were selected for each couple for coding. Sessions were selected to include an empathic joining intervention, as indicated by the therapist on the "therapist rating of sessions" form. The early session was the first session after session 5 that met this criterion, in order to

exclude the assessment and feedback sessions (1-4) and the first treatment session (5), which is typically an introduction to treatment. The late session was the latest treatment session before the last session that met this criterion, as the last session is typically a wrap-up of treatment. The middle session was the midpoint between the early and late sessions for each couple, with the caveat that it was required to fall between the 13-week and 26-week assessment time points.

**Behavioral coding.** Two teams of six coders each were trained on the behavioral coding systems. Coders were trained on videos of sessions that were not included in the proposed study until they became adequately reliable. In addition, 1 session per week during the 10 weeks of coding was rated by all coders, checked for reliability, and discussed during a weekly meeting. The first team of coders was asked to rate the degree to which each partner expressed 5 vulnerable emotions, 5 hard emotions, and 3 positive emotions. The second team of coders was asked to rate the degree to which each partner responds to the other in a way that is validating (3 items) and the degree to which each partner responds to the other in a way that is invalidating (4 items). The coding systems, which were developed by drawing items from naïve coder rating systems for emotional expression and empathy in other studies (Sanford, 2007; Waldinger, Schulz, Hauser, Allen, & Crowell, 2004), are described in detail in "Measures," below. Each session was coded by two of the trained coders from each team. Coders rated each partner's behaviors for every 5-minute interval up to 50 minutes into the session, for a total of ten 5-minute segments per session. A timer was used to remind coders when to pause the recording and complete their ratings.

## Measures

**Relationship Satisfaction.** The Dyadic Adjustment Scale (DAS, Spanier, 1976), a widely used measure of relationship satisfaction that has been shown to have adequate reliability

and validity, was administered at each assessment time point (pre-treatment, 13-wks, 26-wks, and post-treatment). The couples' average DAS scores were used to calculate an index of clinically significant change, as in earlier studies with this sample (Christensen et al., 2004; Atkins, Bedics, McGlinchey, & Beauchaine, 2005). Considering change from pre to post-treatment, couples were classified as recovered (reliable change in a positive direction and reaching normal range, DAS > 96.5), improved (reliable change in a positive direction, but not reaching normal range), unchanged (no reliable change) or deteriorated (reliable change in a negative direction). For analyses, improved and recovered couples were combined as "improved"(N = 44) and unchanged or deteriorated were combined as "not improved" (N = 20).

**Emotional Expression Coding System.** Each emotion was rated on a scale from 1-9 with 1 representing absence of expression and 9 representing high levels of expression of that emotion. A *soft expression* scale was comprised of the 5 vulnerable emotions: hurt, sadness, fear/anxiety, disappointment, and guilt/embarrassment/shame (inter-item reliability when aggregated by individual, α = .64). A *hard expression* scale was comprised of ratings for the 5 hard emotions: anger, irritation/annoyance, criticism, dominance, and contempt (inter-item reliability when aggregated by individual, α = .80). We also measured 3 positive emotions (warmth, affection, and humor) that are not included in analyses. The soft and hard expression scales were standardized within each coder and rescaled so that 0 indicated the absence of soft expression and then averaged across the 2 coders. This resulted in adequate reliability for soft expression (mean α = .80, range α = .68 - .90) and hard expression (mean α = .75, range α = .63 - .89) at each segment of therapy.

**Responsiveness Coding System.** The degree to which each partner responds to the other in a way that is validating was measured by rating the three items, "acknowledges partner's

perspective," "appears tuned into partner's feelings," and "shows an interest in understanding partner," on a scale from 1-9, with 1 representing the absence of the behavior, and 9 representing high levels of the behavior. The degree to which each partner responds to the other in a way that is invalidating was measured by rating 4 items, "responds defensively," "dismisses or minimizes partner's emotions or concerns," "shames or humiliates partner," and "withdraws, changes the topic, or refuses to discuss the issue," on a scale from 1-9, with 1 representing the absence of the behavior, and 9 representing high levels of the behavior. Due to low frequency of many of these behaviors and an extremely low range of the observed behaviors, the validation and invalidation scales were reduced to a dichotomous variable, coded as present (1) or not present (0). When there was disagreement between coders (33% of codes) a third coder was added.

**Data Analysis**

Multilevel random coefficient modeling, also called hierarchical linear modeling (Raudenbush & Bryk, 2002), was used for all analyses. Random coefficient modeling is a flexible approach that is well-suited for data with couples and multiple measurement time points, as it accounts for non-independence between spouses and between repeated measures. All analyses were completed in HLM 7.0 (Raudenbush, Bryk, Cheong, Congdon, du Toit, 2011).

For most hypotheses, data were reduced to one measurement per session (i.e., average vulnerability, average hard expression, percent validation, and percent invalidation) and analyzed in a 2-level multivariate model (Raudenbush, Brennan, & Barnett, 1995) including separate intercepts and linear slopes for males and females. To test overall gender differences, we used an intercept-only model, including only the intercept for female and the intercept for male, where these intercepts represent an average across the three sessions. To test treatment response differences, clinically significant change status was added to this model, represented as an

indicator variable comparing recovered/improved couples and unchanged/deteriorated couples at level 2. Finally, to examine change over time and the effect of treatment response on change, a female linear slope and male linear slope was added to the model, with time coded as 0, 1, and 2, for early, middle, and late sessions, respectively, as shown:

Level-1 Model

$$Y_{it} = (\text{female})_{it} [P_{f0i} + P_{f1i} (\text{linear})_{it}] + (\text{male})_{it} [P_{m0i} + P_{m1i} (\text{linear})_{it}] + e_{it}$$

Level-2 Model

$P_{f0i} = B_{f00} + B_{f01}(\text{rec/improved}) + u_{f0i}$ $\quad P_{m0i} = B_{m00} + B_{m01}(\text{rec/improved}) + u_{m0i}$

$P_{f1i} = B_{f10} + B_{f11}(\text{rec/improved}) + u_{f1i}$ $\quad P_{m1i} = B_{m10} + B_{m11}(\text{rec/improved}) + u_{m1i}$

When soft or hard expression was the outcome variable, the natural log of session averages was used to approximate a more normal distribution. When validation or invalidation was the outcome variable, a Poisson model was used since these are count variables (i.e., number of segments including validation or invalidation within a session). Results are reported for a population average model with robust standard errors.

For hypotheses regarding the relationships among variables within a session, we utilized a four-level model, with segments of therapy at level one nested within therapy sessions at level two, therapy sessions nested within individuals at level 3, and individuals nested within couples at level 4. To examine hypotheses regarding the effect of emotional expression on likelihood of partner validation and invalidation, we used a Bernoulli model with soft and hard expression (grand mean centered) as level one predictors, time in therapy (early to late session) as a fixed effect at level 2, and gender (coded -1 for females, 1 for males) as a fixed effect at level 3. Treatment response was added as a fixed effect at level 4 to determine whether this moderates

the relationships. Results are reported for a non-linear unit-specific model utilizing PQL estimation, as HLM does not report population average results for four level models.

## Results

### Differences by gender and treatment response

In an intercepts-only model, wives, compared to husbands, were observed, on average, to display greater soft expression ($\chi^2 = 25.73$, $p < .001$) and greater hard expression ($\chi^2 = 62.81$, $p < .001$). Wives were also observed to be more frequently invalidating than husbands ($\chi^2 = 288$, $p < .001$ ), while husbands were more frequently validating than wives ($\chi^2 = 909.04$, $p < .001$ ).

Average soft and hard expression did not differ based on clinically significant change status (improved vs. not improved) for husbands or wives. Average frequency of invalidation also did not differ for improved compared to not improved for either husbands or wives. However, clinically significant change status was a significant predictor of overall frequency of validation, such that the odds of validation for improved couples is 1.32 times that of non-improved couples for husbands ($\beta = 0.28$, $SE = 0.12$, $p < .05$) and 1.39 times that of non-improved couples for wives ($\beta = 0.33$, $SE = 0.15$, $p < .05$). The magnitude of this effect did not significantly differ by gender.

### Change over time

Results indicate no overall change over time for husbands or wives in soft expression or validation. Wives, but not husbands, on average, showed a decrease in hard expression over time ($\beta = -0.06$, $SE =$ $p < .05$). In addition, wives, but not husbands, on average, showed a decrease in frequency of invalidation over time ($\beta = -0.14$, $SE = 0.05$, $p < .01$).

When clinically significant improvement status was added to the growth models, there was no difference between couples who improved by the end of treatment and those who did not

improve in slope or intercept for soft expression, hard expression, or invalidation. However, husbands and wives who demonstrate significant improvement in therapy were more frequently validating than those who did not ($\beta = 0.50$, $SE = 0.17$, $p < .01$; $\beta = 0.33$, $SE = 0.14$, $p < .05$), and the interaction with time was significant for wives, but not husbands, such that wives demonstrated a significant increase in validation over time ($\beta = 0.18$, $SE = 0.08$, $p < .05$). This change over time was greater, though not significantly, for wives in non-improved couples compared to improved couples, as illustrated in Figure 1.

**Relationships among client processes**

Zero-order correlations for session averages of client processes are shown in Table 1. Of note, there was a significant positive correlation between average hard expression and average soft expression within a session. From the session average correlations, it appears that average hard expression is more strongly related to partner validation or invalidation than average soft expression in a session.

In the four-level model looking at relationships at the segment level, likelihood of partner validation during a particular segment was not significantly predicted by client levels of soft or hard expression, nor did these relationships vary by gender or timing of the session. Likelihood of partner invalidation, however, was predicted by both client soft expression ($\beta = -0.20$, $SE = 0.09$, $p < .05$) and client hard expression ($\beta = 1.22$, $SE = 0.12$, $p < .001$), such that partners were less likely to be invalidating in segments where the client expressed greater soft emotion (OR =.82) and more likely to be invalidating in segments where the client expressed greater hard emotion (OR = 3.40) when all other variables in the model are equal to zero.

When clinically significant change status was added as a moderator, a significant improvement status by partner by time interaction was observed on the relationship between soft

expression and likelihood of partner validation ($\beta = -0.43$, $SE = 0.15$, $p < .01$). As shown in the top graph of Figure 2, at average levels of hard expression, improved couples show a pattern in which husbands were more likely to validate in segments with higher levels of wife soft expression in late sessions, while they were equally validating across all levels of wife soft expression in early sessions. For couples who do not improve in therapy there was a cross over effect, with husbands more likely to validate at higher levels of wife soft expression in early sessions, but less likely to validate at higher levels of wife expression in late sessions. As shown in the bottom graph of Figure 2, the opposite pattern was observed for wife validation and husband soft expression. Improved couples demonstrated a cross over in which, at average levels of husband hard expression, wives were more likely validating at high husband soft expression than low husband soft expression in early sessions, but more likely validating at low husband soft expression that high husband soft expression in late sessions. In couples who did not improve, wives were equally likely validating across level of husband soft expression in early sessions, but were more likely validating at higher levels of husband soft expression in late sessions.

With regards to likelihood of partner invalidation, its relationship with soft and hard expression remained significant when improvement status was added to the model, and an improvement status by time interaction was observed on the relationship between hard expression and partner invalidation ($\beta = -0.39$, $SE = 0.19$, $p < .05$). As shown in Figure 3, at average levels of soft expression and collapsing across gender, there is a strong effect of hard expression on likelihood of partner invalidation, such that higher levels of hard expression are related to higher likelihood of partner invalidation. At high levels of hard expression, there is some differentiation by improvement status and timing of session, such that in improved couples

partners are less likely invalidating in late sessions compared to early sessions, while in not improved couples, partners are less likely invalidating at early sessions compared to late sessions.

## Discussion

Our primary aim was to determine whether client processes related to empathic joining interventions occurring in session are related to therapy outcome, that is, whether or not the couple improves in relationship satisfaction by the end of therapy. Of the processes examined, only client validation of the partner was shown to be significantly related with improvement status at the end of treatment, such that improved couples were more often validating than couples who did not improve.

We also did not find changes in soft expression over time, or a relationship between change in soft expression and improvement status. Thus, we did not replicate the finding of Cordova, et al. (1998) who found that increases in expressed soft emotion was marginally related to decreases in marital distress. We did observe a decrease in hard expression and invalidation over time for both improved and not improved couples. While we expected this relationship to be greater for improved couples, it is in some ways encouraging that even couples who do not increase in relationship satisfaction may still derive some benefit in being able to discuss their issues in therapy with less criticism and invalidation by the end of treatment.

With regards to change over time in validation, improved couples remained consistently higher in frequency of validation over the course of therapy than couples who did not improve. Although wives in not improved couples demonstrated some increase from early to late sessions, they did not reach the level of improved wives. This finding raises an important question of whether this effect illustrates a change process or pre-existing characteristic of the couple.

Unfortunately, one limitation of the study is that the early session does not represent a true baseline, as it occurs after the couple has met with the therapist for three assessment sessions and a feedback session, in which the therapist presents a formulation of the couples' difficulties. Thus, high frequency of validation in the early session could reflect change from baseline as a result of readily adopting the therapist's view of the partner's behaviors and emotions as understandable, or it could reflect a pre-existing propensity for validation.

Consistent with our hypotheses, and other research suggesting that women are more emotionally expressive (Brody & Hall, 2010), we found that wives had higher levels of both hard and soft expression. However, contrary to expectations, and research suggesting that women are more empathic in general (Lennon & Eisenberg, 1987) and more responsive to to their partner's distress than men (Neff & Karney, 2005), wives in the current study were found to be more frequently invalidating than husbands, and husbands were found to be more frequently validating than wives. Our findings highlight the importance of attending to the context when considering gender differences, as the propensity to be responsive in a social support context does not necessarily carry over to the context of couple therapy. That women react more defensively than men in a setting where they are discussing relationship difficulties could possibly be understood as a reflection of the degree to which women place greater importance on their role as wives (Cinamon & Rich, 2002), and therefore may experience criticism as more threatening to their sense of self. Further, husbands may be more frequently validating as a result of having more opportunity than wives to validate if wives are more expressive of their emotions, sensitivities, and needs in therapy.

The second aim of the study was to observe relationships among processes within session. Consistent with our prediction, higher levels of soft expression were associated with

decreased likelihood of partner invalidation and higher levels of hard expression were associated with increased likelihood of partner invalidation. Furthermore, the interaction showed a small effect indicating some change in the relationship between hard expression and invalidation over time that differed by improvement status, with improved couples demonstrating less likelihood of invalidation at high levels of hard expression in late sessions compared to early sessions, while not improved couples show the opposite pattern. While this effect is small, it is consistent with one of the desired change processes in IBCT, that individuals, rather than seeking to change their partners' problematic behavior (e.g., being critical), change their reaction to their partners' problematic behavior due to an increased understanding of the behavior (and their reactions) in context (i.e., develop greater acceptance of the behavior).

Interestingly, likelihood of partner validation was not predicted by client soft or hard expression, indicating that, on average, soft expression is not being reinforced by the partner in therapy more often than would be expected by chance. When we looked at differences by improvement status a complicated interaction emerged. The pattern for likelihood of husband validation by wife soft expression in improved couples is consistent with the change process we would expect to see in therapy. While husbands in improved couples are more validating than those in couples who do not improve across the board, they also show a change from early to late sessions such that, in late sessions, they are more likely to be validating in segments containing higher levels of wife soft expression than they were in early sessions. We do not see this pattern of change for improved couples in the association between husband soft expression and likelihood of wife validation, suggesting that wife soft expression-husband validation may be a particularly important change process in predicting improvement in therapy. One possible explanation for this difference is the relative frequency of the wife-demand/husband-withdraw

pattern compared to the husband-demand/wife-withdraw pattern in distressed heterosexual couples (Christensen & Heavy, 1990; Eldridge, Sevier, Jones, Atkins, Christensen, 2007). For wives to soften their demands and husbands to validate instead of withdraw is precisely contrary to this pattern, and thus indicative of successful treatment. There is less consistent evidence for an association between husband-demand/wife-withdraw and relationship satisfaction, with some studies even showing a positive relationship between husband demanding behavior and change (increases) in wife satisfaction (e.g., Heavey, Layne, & Christensen, 1993). This may explain why we did not see changes in husband hard expression over the course of treatment, as this at least demonstrates engagement and may be helpful or encouraged for some couples in which the husband is typically withdrawn. Future research might examine whether pre-treatment communication patterns moderate or changes in communication patterns mediate the associations observed in the current study.

The study has a number of strengths in that the sample was drawn from a rigorously designed clinical trial with good retention rates, it utilizes multilevel modeling techniques to account for dependence within individuals and couples, and has true clinical applicability as it includes coding of therapy sessions. However, it also is not without limitations. Although emotional expression and responsiveness variables were measured in close proximity to one another (within 5 minute segments), they were not analyzed sequentially, thus we cannot assess the direction of effects (e.g., whether increased soft expression leads to decreased likelihood of invalidation, or decreased invalidation leads to increased soft expression).

A second limitation is that, due to the time-consuming nature of coding and limited number of trained coders, we only sampled three out of each couple's total number of sessions (22 on average). While we selected sessions to include an empathic joining intervention based

on therapist report, we could have missed sessions with particularly potent intimate moments that may have contributed to the ultimate outcome. Future research might employ strategies such as asking therapists or clients to rate the importance of sessions to aid in selection to address this limitation. Further, while we were able to look at linear changes over time, we did not have enough time points to look at alternative time trends, such as a quadratic growth or piecewise growth models of change.

A final limitation is that the coding quantifies the extent to which individuals clearly and genuinely expressed emotions, but it does not take into account the content surrounding the expression. For instance, one might genuinely express anxiety that is related to something outside of the relationship (e.g., “I’m just so scared of getting fired.”) or genuinely express anxiety that is directly related to the relationship (e.g., “I just so scared that you will leave me.”), and these expressions may function differently in terms of how they are received by the partner and how the partner’s response impacts the individual who is expressing the emotion.

Despite its limitations, the current study has important implications for clinical practice. We found evidence to suggest that frequent client validation of the partner during therapy sessions is a predictor of treatment outcome, and that husband validation of wife soft expression may be a particularly important change process. Although unrelated to outcome, we also found that invalidation and hard expression decrease over the course of therapy, suggesting that couple therapy at the very least changes the way couples discuss issues. Future studies may look at what therapist behaviors encourage these processes.

Table 1

*Intercorrelations, Means, and Standard Deviations for Client Process Variables*

| Variable | 1 | 2 | 3 | 4 | *M* | *SD* |
|---|---|---|---|---|---|---|
| 1. Soft Expression | -- | | | | 0.67 | 0.53 |
| 2. Hard Expression | .37** | -- | | | 0.86 | 0.61 |
| 3. Validation | -.25** | -.37** | -- | | 0.47 | 0.29 |
| 4. Invalidation | .16** | .75** | -.33** | -- | 0.31 | 0.26 |
| 5. Partner Soft Expression | .18** | | | | | |
| 6. Partner Hard Expression | .03 | .47** | | | | |
| 7. Partner Validation | -.11* | -.25** | .69** | | | |
| 8. Partner Invalidation | .09 | .55** | -.26** | .73** | | |

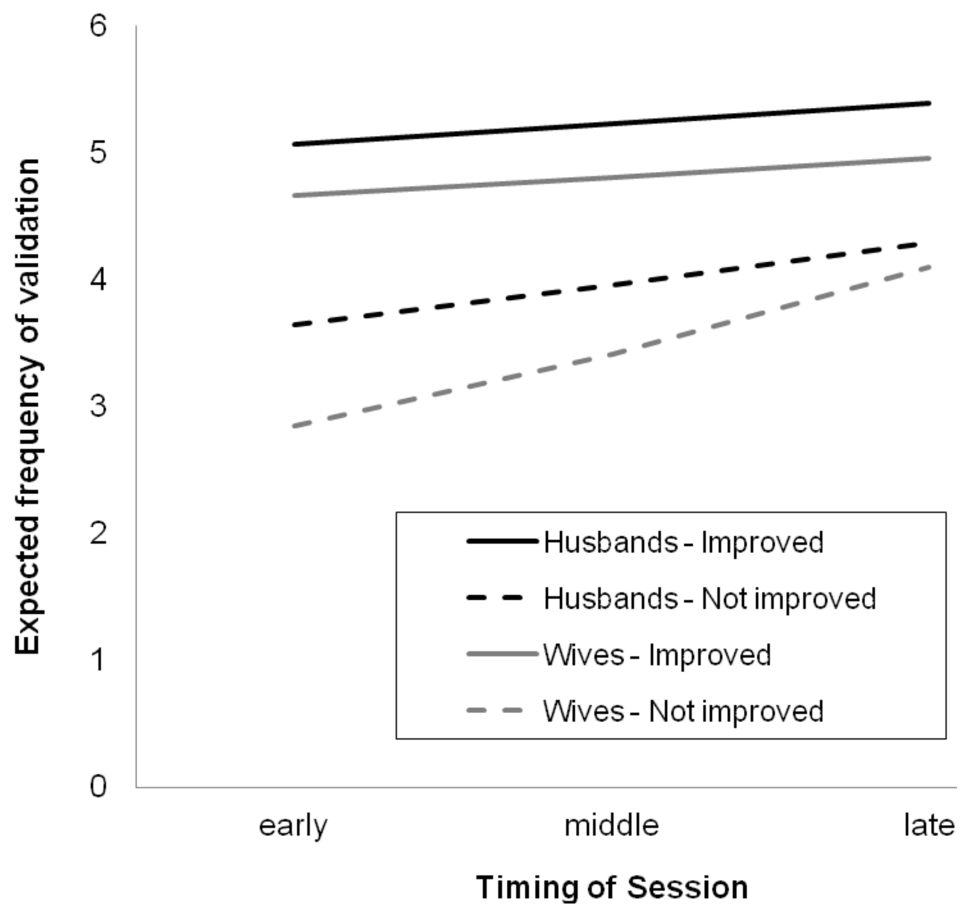
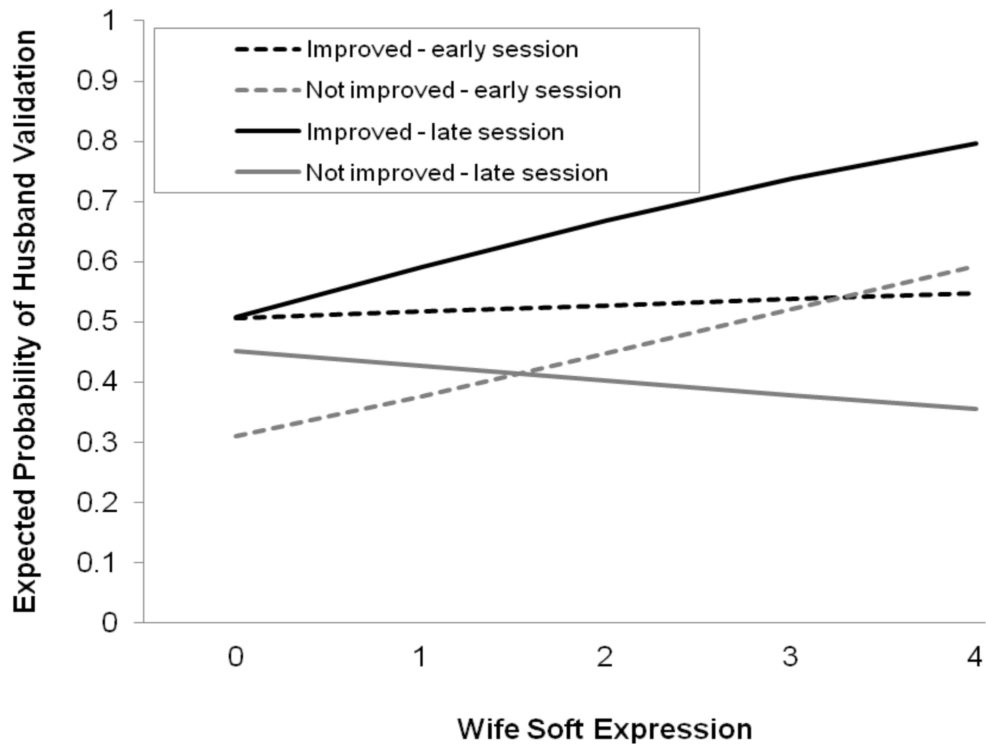



*Figure 1.* Expected frequency of change over time by gender and clinically significant change status.



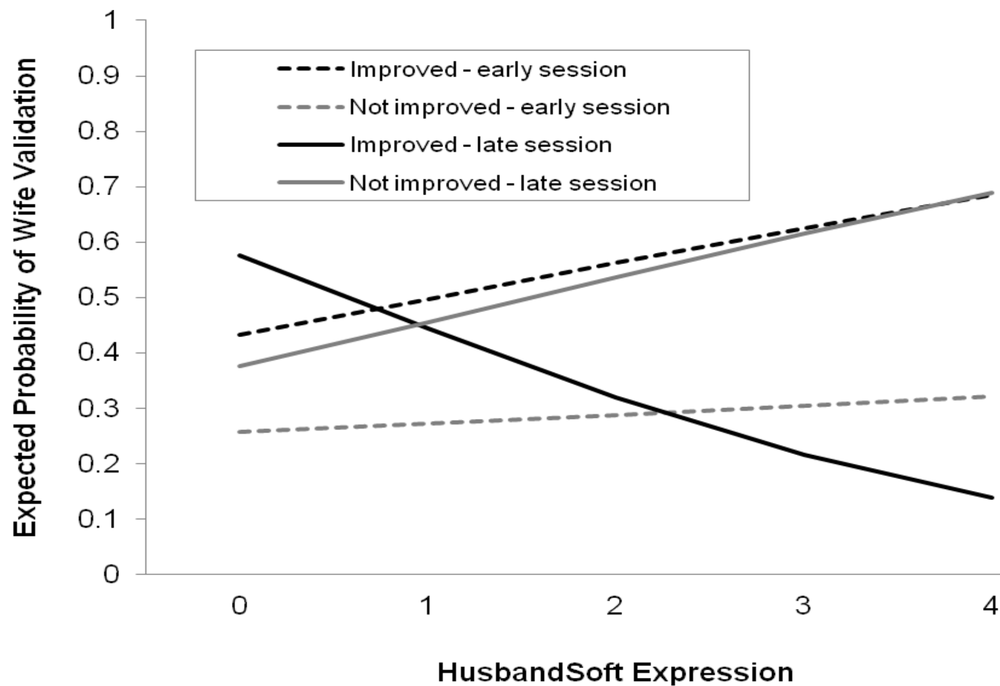




*Figure 2.* Expected probability of husband validation by wife soft expression for improved vs. not improved couples in early vs. late sessions (top), and expected probability of wife validation by husband soft expression for improved vs. not improved couples in early vs. late sessions (bottom).

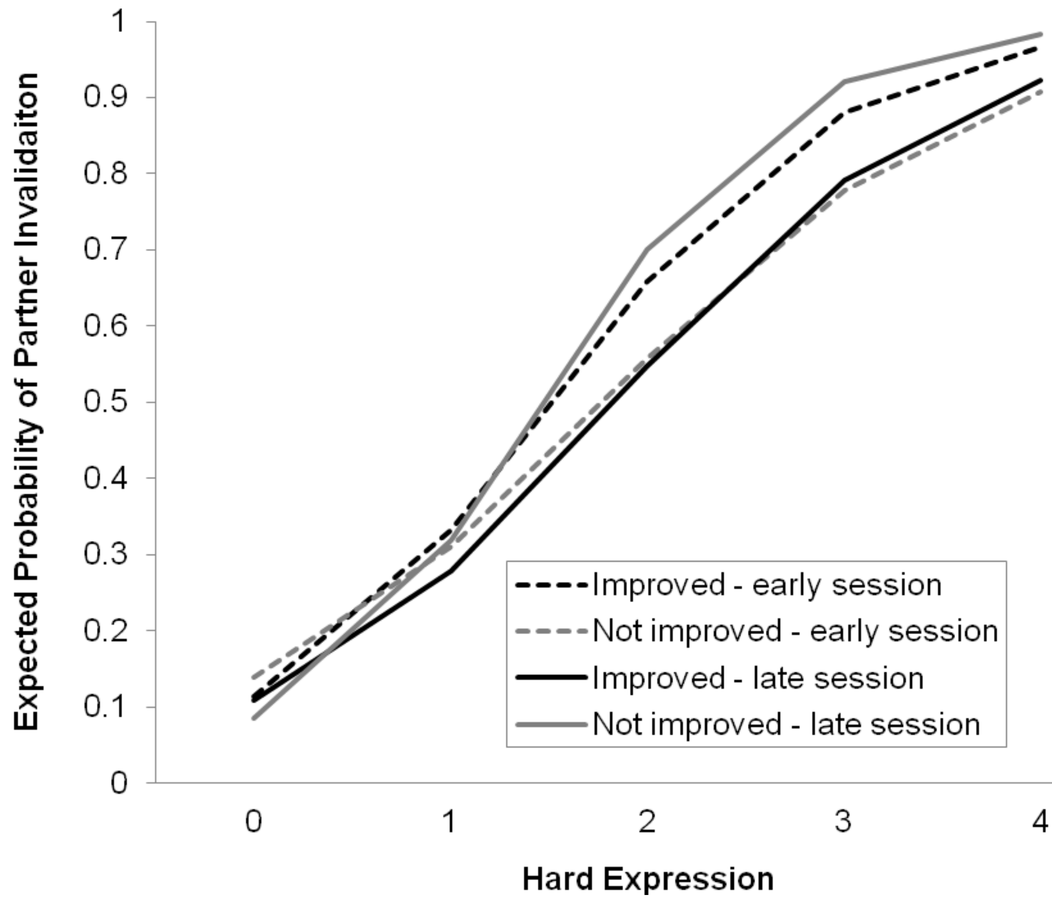



*Figure 3.* Expected probability of partner invalidation by level of hard expression for improved vs. not improved couples in early vs. late sessions

# A Mixed Method Analysis of Therapist Behavior during Integrative Behavioral Couple Therapy

Integrative Behavioral Couple Therapy (IBCT) is an empirically supported therapy that combines the change strategies of traditional behavioral couple therapy with strategies that foster acceptance and understanding of differences. In one of the primary acceptance-focused interventions, termed *empathic joining*, clients are encouraged to express greater vulnerability as a means of developing intimacy and understanding around their differences. In the previous paper, we examined client processes within sessions of IBCT containing empathic joining interventions, and found that higher frequency of client validation on average, and increases in husband validation in segments with high wife soft expression over the course of therapy were two processes that distinguished couples who improved from couples who did not improve in therapy. An important follow-up to this study is to examine therapist behavior during empathic joining, as the degree to which a client exhibits behaviors such as expressing vulnerability or responding empathically toward one's partner will depend, in part, on the therapist's decisions about how and when to intervene during the session. Indeed, as Doss (2004) points out, there is a reciprocal relationship between client and therapy processes within sessions, as clients react to the therapist's interventions, while therapists adjust their interventions to the behaviors and reactions of the clients. In IBCT there is no prescribed order of interventions; rather, the choice of intervention is informed by the material the couple brings in that week and the therapist's conceptualization of the couple's difficulties. Thus, in any given session, the therapist may be observed using a variety of strategies. It has not yet been determined whether particular strategies are more reliably related to particular client changes.

Therapy process is often examined broadly in terms of therapist adherence to a type of treatment or client ratings of the therapeutic alliance and the relationship of these variables to client outcome. However, in the interest of making clinical research more accessible and relevant to practitioners, some researchers have advocated for a more in depth examination of how interventions are delivered and the impact of therapist behavior on client behavior within sessions. Mixed method approaches, which combine qualitative and quantitative analysis, are well-suited to address this aim. The advantage of combining approaches is that the results from one methodology can a) clarify, illustrate, or elaborate on the results from the other, b) inform or aid in the development of the other, and c) corroborate or confirm results from the other (Greene, Caracelli, & Graham, 1989). Elaboration and illustration are helpful in the case of studying therapist behavior, as it allows for more direct application of the findings to clinical practice. Further, it has been suggested that mixed method approaches are particularly useful in studying causal mechanisms, as qualitative methods may uncover a more complete picture of how and why change occurs than would be achieved by quantitative hypothesis testing alone (Yoshikawa, Weisner, Kalil, & Way, 2008).

Bradley & Furrow (2004) applied a mixed method approach to examine therapist behavior during couple therapy. The authors looked at the moment-by-moment process of the therapist during a specific therapeutic task known as a “blamer softening event” in Emotion Focused Therapy (EFT). In blamer softening, a partner who is typically critical or hostile “softens,” or acknowledges and experiences greater vulnerability. In a successful event, the softened blamer is then able to ask for acceptance or comfort from the partner and have his or her needs met by the partner. Through a method known as “task analysis” (Greenberg, 1992), Bradley and Furrow identified six shifts in therapist behavior during a successful blamer

softening event: processing possible blamer reaching, processing fears of reaching, promoting actual blamer reaching, supporting softening blamer, processing with engaged withdrawer, and promoting engaged withdrawer reaching back. In their application of task analysis, the authors utilized both behavioral coding and thematic analysis, allowing them to provide rich descriptions of each type of therapist behavior.

The process of blamer softening in EFT shares some similarities with empathic joining in IBCT. During empathic joining, therapists promote the expression of "soft" emotions (e.g., hurt, sadness) as a means of increasing partners' understanding and acceptance of one another. It is likely that there are some similarities in therapist behavior between EFT therapists during softening events and IBCT therapists during empathic joining, but this has not yet been verified with a systematic analysis of therapist behaviors during empathic joining.

The current study examines therapist behaviors in IBCT utilizing a sequential mixed method approach. In the first step, quantitative coding from the first study of this dissertation was used to identify segments of "successful" and 2 variations of "unsuccessful" empathic joining interventions. In successful empathic joining, one partner expresses high vulnerability and the other partner responds in a way that is more validating than invalidating. Unsuccessful empathic joining is defined as instances in which one partner's high vulnerability is met with more invalidation than validation (type A), or instances in which partners express a high degree of hard expression instead of vulnerability (type B). The segments were then analyzed qualitatively, by categorizing each statement of the therapist during the segment, in a process known as indexing. The initial categories were based on the IBCT manual (Christensen & Jacobson, 1998) and the authors' clinical experience with IBCT. We identified 4 categories of therapist behavior that should be present in most cases of empathic joining (e.g., therapist

suggests or encourages client's expression of soft emotions), 6 categories of behavior that should be present given behavior from the client that may interfere with empathic joining (e.g., therapist interrupts escalating negative interaction between partners if it occurs), and 2 categories of behavior that should not be present in a successful empathic joining intervention (e.g., therapist is blaming of one partner). Using these theory-based categories, the first author indexed therapist verbal behaviors in 21 15-minute segments, with one of each type of segment (one successful, two unsuccessful) selected for each of the 7 study therapists. Categories were added for verbal behaviors that occurred in the data that did not fit into any of the theorized categories.

Next, those categories of behavior that were most frequently indexed in successful cases, and those that appear to distinguish between successful and unsuccessful empathic joining interventions were used to create a quantitative coding system for therapist behaviors. This method allowed for the development of a more interpretable quantitative coding system, as we are able to ascribe meaning to the numeric values based on the qualitative analysis. The coding system was applied to 15-minute segments (minutes 20-35) for one randomly selected session per couple in the full sample of IBCT couples in order to establish reliability of the coding and allow for a preliminary examination of whether the coding of therapist behaviors are associated with the behavioral coding of client behaviors. We predicted that higher levels of those therapist behaviors found to distinguish successful from unsuccessful empathic joining in the qualitative analysis will be associated with higher soft expression and validation in the quantitative analysis.

## Method (Qualitative Study)

### Participants

**Couples.** The participants for the qualitative analysis were selected out of 64 couples who participated in the Integrative Behavioral Couple Therapy arm of a randomized controlled

trial comparing IBCT to Traditional Behavioral Couple Therapy (TBCT). The full sample for the clinical trial contains 134 moderately to severely distressed couples who were recruited for participation in a study of marital therapy at the University of California, Los Angeles (UCLA) and the University of Washington (UW). For a complete description of recruitment procedures and inclusion criteria, see Christensen, Atkins, Berns, Wheeler, Baucom, and Simpson (2004).

**Therapists.** The therapist participants for the qualitative analysis were 7 of the 8 study therapists included in the clinical trial. One therapist was excluded because she only saw one couple in the IBCT arm of the study and the qualitative analysis required at least 3 couples per therapist. Therapists were community providers in the Seattle and Los Angeles area who were selected for their expertise in couple therapy. For full description of therapist selection and training procedures, see Christensen, et al. (2004).

## Procedure

**Selection of couples and segments for qualitative analysis.** The selection of couples for the qualitative analysis was based on the coding of client behaviors for the first paper of this dissertation. In the first study, ten 5-minute segments from each of three sessions for each couple were coded for each partner's expression of soft emotions, expression of hard emotions, validation of the partner, and invalidation of the partner. Seven therapists saw more than one couple in the IBCT arm of the clinical trial. For each therapist, a 15-minute segment of therapy (three consecutive 5-minute segments) from 3 different couples was selected, one containing a successful empathic joining segment with high soft emotion and high partner responsiveness, one containing an unsuccessful empathic joining segment (type A) with high soft emotion and low partner responsiveness, and one unsuccessful empathic joining segment (type B) with high hard expression and low soft emotion. We stipulated selecting the 3 types of segments from 3

different couples for each therapist to increase the diversity of the qualitative sample. First, for each therapist, the couple with the highest soft expression x partner responsiveness (validation minus invalidation) in a 5-minute segment was selected. This highest rated segment, the 5 minutes prior to, and the 5 minutes following this segment (15 minutes total) were included in analyses. Next, excluding the couple already selected, the couple with the highest vulnerability x lowest partner responsiveness in a 5-minute segment was selected, and a 15-minute segment identified for analysis. Finally, of the therapist's remaining couples, the couple with the highest hard expression + reverse-coded vulnerability in a 5-minute segment was selected, and a 15-minute segment around that 5-minute segment identified for analysis. All of these 15-minute targeted segments were transcribed.

**Indexing of therapist behaviors.** Twelve categories were identified as theoretically important to empathic joining interventions. The four categories of behavior that should be present in most cases are "promotes client's focus on current emotional experience," "reformulates client's emotions/behaviors as understandable reaction," "suggests or encourages soft expressions," and "presents joint formulation of client and partner experience." The six categories that of behavior that may occur contingent on client behavior are, "promotes client's focus on emotional experience in past incident," "asks partner to summarize client's position," "asks for partner's reaction to reformulation of client's experience," "interrupts negative escalation," "asks clients to speak directly to one another," "asks clients to speak through the therapist," The 2 categories of behavior that we would not expect to see are "assigns blame to one partner," "dismisses, ignores, or moves away from client's emotional experience."

The verbal behaviors of the therapist in the 15-minute targeted segment for each couple was indexed by the first author, such that each talk turn of the therapist was classified as belonging to

one or more categories, with categories added, removed, or combined as needed to fit the data. A talk turn was defined as a segment of continuous speech that contained at least one complete thought. If the therapist was interrupted and did not complete a thought (e.g., Well, you…), this was not indexed. If the therapist was briefly interrupted and continued his/her speech to form a completed thought, this was considered part of one talk turn. Statements of minimal encouragement, such as "Mm-hmm," or "Okay" were not indexed because the transcripts differed in the extent to which the transcriber captured every small utterance of the therapist. The first author read through each transcript to make initial categorizations, and then read through all segments in each category to check whether any had been miscategorized. Most talk turns (74%) were classified into one category; however, some talk turns included elements belonging to multiple categories, such as when the therapist both reformulated the client's position as understandable and described a joint formulation in the same talk turn, or when the promotion of focusing on the client's current emotions included a suggestion of a soft emotion. The final indexing spreadsheet included 18 categories, shown, with examples, in Table 1. The last category, "engages in small talk or speaks about administrative items," was excluded from analyses since it is confounded with the timing of the segment selected (i.e., there are more administrative items to discuss at the beginning and end of session).

**Qualitative Data Analysis.** As part of the qualitative analysis, two types of effect sizes were computed for every category, separately for each type of segment. A frequency effect size was calculated as the proportion of cases in which the category is identified out of the total number of cases, with a "case" defined as one 15 minute segment. An intensity effect size was calculated as the number of units (therapist statements) contributing to each category out of the total number of units, with a "unit" defined as one talk turn (Onwuegbuzie & Teddlie, 2003).

## Results (Qualitative Study)

### Frequency and Intensity Effect Sizes

Very few large differences emerged with regards to the frequency effect sizes (reported as percentages, see Table 2), likely due to the small number of cases (7) in each group. The largest differences observed (with chi-square values at $p<.2$, a generous p-value due to very small group sizes) were that for successful cases, compared to the combined unsuccessful cases, in which therapists were more likely to promote focus on the current emotional experience (100% compared to 79%), add meaning or interpretation (100% compared to 71%), and back off a previous statement (57% compared to 29%), and less likely to interrupt negative escalation (0% compared to 36%), ask clarification (86% compared to 100%), ask for the partner's reaction (29% compared to 64%), or dismiss or move away from emotion (0% compared to 21%).

With regards to intensity effect sizes (reported as percentages, see Table 3), a higher percentage of therapist talk turns in successful cases compared to unsuccessful cases (with chi-square values at $p<.1$) can be categorized as reformulating as understandable (25% compared to 15%), encouraging soft expression (18% compared to 10%), adding meaning or interpreting (11% compared to 6%), and backing off a previous statement (4% compared to 1%). A higher percentage of therapist talk turns in unsuccessful cases compared to successful cases included asking for the partner's reaction (7% compared to 2%) and interrupting escalation (0% compared to 3%).

## Method (Quantitative Study)

### Participants

Sixty-three of the 64 IBCT couples and 7 of the 8 study therapists who participated in the larger clinical trial were included in the quantitative study. One of the eight therapists on the

study only saw one IBCT couple; thus, data for this couple was excluded from the current study. Each of the seven therapists included in analyses had a group size of at least 4 couples.

## Measures

**Therapist Behavior Coding System.** Using the observed pattern of results from the qualitative analysis as a guide, the categories for higher frequency therapist behaviors were used to create scales, while lower frequency items of observed or theoretical importance were retained as yes/no variables. The categories, "utilizes direct change strategy" and "asks couple to fake an interaction (tolerance building)" were included since these indicate the presence of interventions aside from empathic joining and may systematically alter observed client behavior (e.g., we would expect higher hard expression in a tolerance building intervention). The categories "summarizes," "adds meaning," and "reformulates as understandable" were combined into a therapist validation scale, as these are theoretically different levels of validation that increase in potency (from mere reflecting to demonstrating understanding) and we observed higher frequencies of higher level validation in successful events compared to unsuccessful events. The category "dismisses or moves away from emotion" was combined with "encourages soft emotion" to create a continuum from discouraging to encouraging soft emotion. Validation of husband and validation of wife were coded on a 7-point scale, from 0 (none) to 6 (makes understandable in greater depth). Presents joint formulation was coded on a 7-point scale from 0 (none) to 6 (describes in greater depth with emotional impact). Encourages husband soft expression (current), encourages wife soft expression (current), encourages husband soft expression (past), and encourages wife soft expression (past) were coded on a 7-point scale from -1 (dismisses or moves away from emotion) to 5 (deepens vulnerable expression). Asks for clarification was rated on a 5 point scale, with higher values indicating greater meaning in the

clarification (e.g., 1 = clarifying small detail, 4 = clarifying emotion). Coders indicated that it was often difficult to discriminate between current and past soft emotion, as emotions experienced in past incidents were sometimes spoken about in present tense. Thus, in analyses, the scales for current and past were combined into one "encourages wife soft expression" scale and one "encourages husband soft expression" scale (maximum value for either current or past). Coder pairs demonstrated good reliability for validation (mean α = .74, range = .68-.82), encourages soft expression (mean α = .76, range = .7-.82), and presents joint formulation (mean α = .77, range = .67-.91). Three of the six coder pairs were not adequately reliable on the "asks clarification" scale (mean α = .64, range = .47-.82); therefore, this scale was not included in quantitative analyses. In addition, the following low frequency therapist behaviors were coded as "present" or "not present": "utilizes direct change strategy," "utilizes tolerance building strategy," "asks partner to respond to reformulation," "asks partner to summarize," "interrupts negative escalation," and "backs off a previous statement." A third coder was added when there was disagreement about whether or not a behavior was present. "Utilizes tolerance building strategy," and "backs off previous statement" were too infrequently observed to include in quantitative analyses. "Asks partner to respond to reformulation" and "asks partner to summarize" were combined into one "asks partner to respond" variable. See "Therapist Behavior Coding Manual" in Appendix for full description of codes.

**Emotional Expression Coding System.** In the previous study, each hard and soft expression was rated on a scale from 1-9 with 1 representing absence of expression and 9 representing high levels of expression. A *soft expression* scale was comprised of the 5 vulnerable emotions (hurt, sadness, fear/anxiety, disappointment, and guilt/embarrassment/shame). A *hard expression* scale was comprised of ratings for the 5 hard

emotions (anger, irritation/annoyance, criticism, dominance, and contempt). The soft and hard expression scales were standardized within each coder and rescaled so that 0 indicated the absence of soft expression and averaged across coders. This resulted in adequate reliability for soft expression (mean $\alpha$ = .80, range $\alpha$ = .68 - .90) and hard expression (mean $\alpha$ = .75, range $\alpha$ = .63 - .89)

**Responsiveness Coding System.** The degree to which each partner responds to the other in a way that is validating was measured by rating the three items, "acknowledges partner's perspective," "appears tuned into partner's feelings," and "shows an interest in understanding partner," on a scale from 1-9, with 1 representing the absence of the behavior, and 9 representing high levels of the behavior. The degree to which each partner responds to the other in a way that is invalidating was measured by rating 4 items, "responds defensively," "dismisses or minimizes partner's emotions or concerns," "shames or humiliates partner," and "withdraws, changes the topic, or refuses to discuss the issue," on a scale from 1-9, with 1 representing the absence of the behavior, and 9 representing high levels of the behavior. Due to low frequency of many of these behaviors and an extremely low range of the observed behaviors, the validation and invalidation scales were reduced to a dichotomous variable, coded as present (1) or not present (0). When there was disagreement between coders (32% of codes) a third coder was added.

**Procedure**

**Coding Procedure for Client Behavior.** In the previous study, two teams of 6 coders each were trained on the client behavioral coding systems. Coders were trained on videos of sessions that were not included in the study until they became adequately reliable. In addition, 1 session per week during the 10 weeks of coding was rated by all coders, checked for reliability, and discussed during a weekly meeting. The first team of coders was asked to rate the degree to

which each partner expressed 5 vulnerable emotions, 5 hard emotions, and 3 positive emotions. The second team of coders was asked to rate the degree to which each partner responds to the other in a way that is validating (3 items) and the degree to which each partner responds to the other in a way that is invalidating (4 items). The coding systems are described in detail in "Measures," above. Each session was coded by two of the trained coders from each team. Coders rated each partner's behaviors for every 5-minute interval up to 50 minutes into the session, for a total of ten 5-minute segments per session. A timer was used to remind coders when to pause the recording and complete their ratings.

**Coding Procedure for Therapist Behavior.** Four coders were trained on the Therapist Behavior Coding System (described in "Measures," above). Coders were trained on videos of sessions that were not included in the study until they became adequately reliable. In addition, 1 session per week during the 10 weeks of coding was rated by all coders, checked for reliability, and discussed during a weekly meeting. One of the early, middle, or late sessions coded for client behavior in the first study of this dissertation was randomly selected, with the caveat that it could not be the same session used in qualitative analysis, for each of the 63 couples. Two of the four trained coders coded minutes 20-35 of each session in 5-minute increments. A timer was used to remind coders when to pause the recording and complete their ratings.

**Quantitative Data Analysis.** All analyses were completed in HLM 7.0 (Raudenbush, Bryk, Cheong, Congdon, du Toit, 2011). Outcome variables were the client behaviors for each partner for three 5-minute segments of therapy, for a total of six measurements per couple. Data were analyzed in a two intercept model with three-levels, with separate intercepts and therapist behavior predictor variables for husbands and wives at level one, nested within couples at level 2, nested within therapists at level 3. Random effects were included at levels 2 and 3 for

husband and wife intercepts only. Client soft expression, client hard expression, client validation, client invalidation, and the presence of a “successful event” (client soft expression and partner validation) were examined as outcome variables. Soft and hard expression variables were log transformed to better approximate a normal distribution. The odds of validation, invalidation, and successful events were examined in a Bernoulli model, with results reported for a population average model with robust standard errors. Therapist behavior variables were examined as level-1 predictors. Therapist validation of client, therapist validation of partner, therapist encouragement of client soft expression, therapist encouragement of partner soft expression, therapist presentation of joint formulation, therapist asking client to respond, therapist utilizing a direct change strategy, and therapist interrupting negative escalation were examined simultaneously as level-1 predictors. Therapist variables were not centered; therefore, we can interpret betas as representing the average change in the outcome with a one-unit increase in that particular therapist behavior when the other therapist variables are at zero (i.e., when the other therapist behaviors are absent.) Contrasts were computed to test differences between husbands and wives.

## Results (Quantitative Study)

### Descriptive statistics

Descriptive statistics by therapist are shown in Table 4. Means did not significantly differ by therapist, $F(7,184) = 0.92$, 0.71, 0.70, 1.05, and 1.56, $p > .05$, for husband validation, wife validation, encouraging husband soft expression, encouraging wife soft expression, and presenting joint formulation, respectively. On average, therapists did not significantly differ in their behavior towards husbands compared to wives on validation, $t(191) = -1.61$, ns, or encouraging soft expression, $t(191) = -1.39$, ns.

**Relationships between therapist and client behaviors**

**Soft expression.** Therapist validation of the client was related to greater soft expression for both husbands and wives ($\beta = 0.12$, *SE* = 0.03, $p<.001$; $\beta = 0.13$, *SE* = 0.03, $p<.001$), with the effect significantly greater for wives ($\chi^2 = 31.42$, $p < .001$), while therapist encouragement of soft expression was related to greater soft expression for wives ($\beta = 0.09$, *SE* = 0.03, $p < .01$), but not husbands ($\chi^2 = 11.46$, $p < .01$). Therapist validation of the partner was inversely related to soft expression for both husbands ($\beta = -0.14$, *SE* = 0.03, $p < .001$) and wives ($\beta = -0.09$, *SE* = 0.03, $p < .01$), with a significantly larger effect for husbands ($\chi^2 = 30.12$, $p < .001$).

**Hard expression.** There were no therapist behaviors that were significantly associated with husband hard expression. For wives, however, therapist validation of the wife and therapist interruption of escalation were related to greater hard expression ($\beta = 0.08$, *SE* = 0.03, $p < .05$; $\beta = 0.35$, *SE* = 0.17, $p < .05$), while therapist validation of the partner was related to less hard expression ($\beta = -0.10$, *SE* = 0.03, $p < .01$). Differences between husbands and wives on these variables were all significant ($p < .05$).

**Validation.** Husbands were significantly more likely to validate their partners during segments in which the therapist asks them to respond ($\beta = 1.14$, *SE* = 0.53, $p <. 05$). This association was only significantly weaker for wives ($\beta = 0.99$, *SE* = 0.51, $p = .06$; $\chi^2 = 8.38$, $p < .05$). Wives, but not husbands ($\chi^2 = 6.86$, $p < .05$), were significantly less likely to validate their partners during segments in which the therapist interrupted negative escalation ($\beta = -2.32$, *SE* = 0.95, $p < .05$).

**Invalidation.** No therapist behavior variables were associated with wives' likelihood of invalidation. Husbands were, on average, significantly more likely to invalidate their partners

during segments in which the therapist interrupted negative escalation ($\beta = 2.35$, $SE = 0.80$, $p < .01$). The difference between husbands and wives was significant ($\chi^2 = 8.26$, $p < .05$).

**Successful empathic joining.** The presence of wife soft expression and husband validation was significantly more likely to be observed in segments with higher levels of therapist validation of the wife ($\beta = 0.32$, $SE = 0.16$, $p < .05$). This was significantly different than the association between therapist validation of the husband and the presence of husband soft expression and wife validation ($\chi^2 = 6.46$, $p < .05$). There were no significant predictors of the likelihood of husband soft expression and wife validation.

## Discussion

The current study used a mixed method approach with the aims of determining what therapist behaviors are related to "successful" empathic joining interventions and developing a coding system that captures these behaviors and confirms the associations. Descriptive analyses identified a number of therapist behaviors that may be associated with successful empathic joining, in which the client expresses soft or vulnerable emotions and the partner responds with validation and without invalidation. For those behaviors that were reliably coded, quantitative analyses provided additional support for the association between client joining behaviors and some of the therapist behaviors identified.

One therapist behavior that was strongly associated with client behaviors in quantitative analyses was therapist validation. Higher levels of therapist validation were associated with higher levels of both soft and hard expression for wives, and higher levels of soft expression for husbands. It was also associated with a greater likelihood of wife soft expression/husband validation, which was shown in the previous study to be associated with better treatment

outcome. Therapist validation can both reinforce and encourage further expression and model validation for the partner, as in the example below.

> Wife: And I don't know if it's the walls that come up for me, but I start feeling like I don't care, you know? I don't care, like [forget] him, I don't care. And I don't know how to get away from that.
>
> Therapist: Yeah. You don't know how to get away from the pain and the conflict of the feelings, which is related to the issues you have with your mother. You know, it's like a long, unresolved, issue. I don't know how you resolve it exactly, but I do know that you don't resolve it by not expressing it. It is very painful.
>
> Wife: Well it is because I feel like if I, um, if I get mad, or really angry, he's going to punish me by doing what he does, and it doesn't matter what I try do to try to fix it because it's going to go on for weeks, because that's what he does. And then I'm just grateful, eventually, when he goes back to being his regular old self, but I'm… I'm hesitant to say how I really feel about things because if we're going to get in a fight I'll be punished again, and he'll do it to me again.
>
> Therapist: He will retreat.
>
> Wife: Yeah. And that, that's just been the pattern.
>
> Therapist: Do you think that if you are to say to him, exactly that, as a preface to what you are about to say, that that will be helpful? "I want to share with you some feelings that I have, and I know you can choose to then stay away from me, but I really want you to fight that off as much as you can and really stay with me on this, it is important to me."
>
> Wife: We haven't tried that, maybe we should.
>
> Therapist: Can you say that to him yourself?
>
> Wife: Right now? [sighs] I have some things I'd like to share with you, but I'm afraid that if I start expressing these things to you, you're going to avoid me.
>
> Husband: I appreciate that, and I'd like to hear what you have to say, and I promise I won't avoid you as punishment for sharing how you feel.

The therapist first validates the wife's emotional experience, softening her frustrated "I don't care" expression to one of pain, and making it understandable in light of her history, prompting the wife to say more about what concerns and pains her about the interaction. The

therapist then validates again, this time in an instructive way, by putting into words the wife's needs while taking out any blaming statements, making it easier for the husband to hear and validate the needs when she expresses them to him.

Therapist validation of the partner was related to less soft expression for both husbands and wives and less hard expression for wives. This likely reflects that the focus at the time is on the partner's experience, and therefore the client is not being encouraged or reinforced through validation to express his or her own emotions in that particular 5-minute segment. With regards to encouragement of expression, it is notable that the therapist encouraging soft expression appears to have the desired effect (i.e., greater client soft expression) for wives but not husbands. As therapists, on average, were equally encouraging of husband and wife soft expression, it appears that clients are tending to respond in accordance with gender norms that render it more acceptable for females to be emotionally expressive (Timmers, Fischer, & Manstead, 2003).

The therapist behavior of directly asking the partner to respond was more frequently observed in unsuccessful empathic joining segments in descriptive analyses; however, it was related to greater likelihood of validation in quantitative analyses. Asking the partner to respond was also not associated with greater likelihood of client soft expression-partner validation in a given segment. One explanation is that the intervention has a different impact depending on the timing and type of asking. Similar to the "processing with engaged withdrawer" step that precedes the "promoting engaged withdrawer reaching back" intervention in successful EFT blamer softening (Bradley & Furrow, 2004), it is likely that in many cases a certain amount of processing with the partner has to occur following the client's soft expression for the partner to respond with validation and without defensiveness. As in the following example, the partner may move quickly past validating the client to defensiveness if he does not also feel heard.

> Therapist: Um, for a minute I want to ask you, can you, having heard what [wife] was saying about the history and how painful this is, can you get why it might be hard for her to hear you say I've been cutting back? I mean why it might be hard for her to notice you cutting back?
>
> Husband: I can understand that, but she's also got to understand that, you know, pay attention, because for that last month I wasn't hardly drinking at all.

Therapist interruption of negative escalation, although occurring relatively infrequently, was associated with higher levels of wife hard expression, greater likelihood of husband invalidation, and less likelihood of wife validation. While the quantitative findings are non-directional, an examination of transcripts from the qualitative analyses suggests that therapists used the strategy of interrupting to block clients from engaging in their typical patterns. The previous study showed overall decreases in invalidation and hard expression over the course of treatment, suggesting that this strategy was likely helpful in shaping client behavior and reducing negative reciprocity.

The findings in the current study are in many ways consistent with theory and rationale behind IBCT (see Jacobson & Christensen, 1998). Therapist validation both reinforces client behavior and models acceptance within the sessions, so the associations with greater soft expression and likelihood of wife soft expression-husband validation are consistent with the goals of empathic joining. The association with wife hard expression, when taken together with the finding from the previous study that wife hard expression decreases over the course of therapy, is also consistent, in that the therapist's acceptance of the wife's emotions in session models a different response to her behavior that may in turn soften rather than escalate her emotion. If her softening is reinforced and she feels better understood, hard expression is likely to decrease over time. That therapist validation of the partner is not directly related to client validation is an unexpected finding; however, this may be due in part to timing, such that the

client may not validate the partner within the same 5-minute segment as the therapist, but rather later in the session. One might also argue that it is unexpected that the therapist asking a partner to respond is the only positive predictor of validation given the emphasis on contingency-shaped change in IBCT; however, the therapist asking for a response was in most cases open-ended and without instruction (e.g., on use of listener skills), thus it is still allowed the client to respond to the partner contingent on his or her own understanding and cannot be considered a direct change strategy. Further, this behavior and the interruption of negative escalation are both ways of blocking and structuring the interactions such that the client is being given the opportunity to respond only after the partner's expression has been made understandable and softened.

As the therapist appears to serve a significant role in structuring, modeling, and reinforcing client behaviors in session, an important question arises: To what extent do behaviors in session translate to changes outside of session? Future research might examine the association between in-session behaviors and out of session changes in behavior and acceptance and whether out of session changes mediate the relationship between in-session behaviors and therapy outcome.

The present study, similar to the previous study, was limited in terms of the selection procedures. Sessions for descriptive analysis were selected based on the presence of client behaviors that are likely indicative of successful empathic joining, not based on the therapist or an observer judging the intervention as successful. Future studies might look at therapist or client-rated "best sessions" to replicate these results with better exemplars of successful empathic joining. The quantitative portion of the study was also limited by a smaller number of observations than the previous study (only one session per couple and 3 observations per session), preventing us from examining other factors such as change over time.

Despite the limitations, the mixed methods approach proved to be a useful method for examining therapist behavior and developing an interpretable coding system. Results suggest that therapist validation may be particularly important in facilitating empathic joining during IBCT. Future work in this area may seek to clarify successful sequences rather than discrete behaviors and examine the impact of client or therapist variables, such as client individual differences in expressiveness/withdrawal, or therapist gender, on how the interventions are delivered or received.

Table 1

*Index Categories with Examples*

| Category | Example |
|---|---|
| Promotes client's focus on current emotional experience | "Therapist: So, I'm detecting this real annoyance in here. Are you guys annoyed with each other again now?" |
| Reformulates client's emotions or behaviors as understandable reaction | "Therapist: It's so foreign to you because that's not your own style. You're a survivor and you're somebody who will take the bull by the horns and just do it." |
| Suggests or encourages soft expressions | " Therapist: So it sounds like you're hurting about this too. You're angry but you're also hurting about it too." |
| Presents joint formulation of client and partner experience | "Therapist: Well, um, both of you seem to be, seems like it's easy because of your histories, and I talked about this a couple sessions ago, to feel responsible for things. Um. And again, like [wife] you're feeling, you were always damned with your mother and it feels that way sometimes with [husband] and that everything you do is wrong and I think that if there's any hint of that obviously that would be very hurtful and you'd respond. And [husband] you were always sort of responsible to be the protector, to make nice in the family, so any hint of that making nice in the home, that's going to trigger kind of that response in you too, it seems. And unfortunately those two responses are cross preferences." |
| Promotes client's focus on emotional experience in past incident | "Therapist: And the impact of that on you used to be that you'd feel frustrated, hurt, angry, lonely, and then try to change it." |
| Asks for partner's reaction to or summary of client's experience | "Therapist: But you know, you, you're listening really attentively, I am kind of curious what your thoughts are, [Wife], about what he's saying?" |
| Interrupts negative escalation | "Therapist: Now, now, let's not, let's not go down this path." |
| Dismisses, ignores, or moves away from client's emotional experience | "Wife: That's why I'm angry now and I don't really believe it.<br><br>Therapist: So, all we can do when we're trying to come up with a solution to a problem today is work on that." |

| | |
|---|---|
| Paraphrases or summarizes one partner's position | "Therapist: Right. Let me sort of replay it. Because you're saying for the week you were doing these things just for your own sake, just to keep things nice so you felt good." |
| Adds meaning to or interprets one partner's position | "Therapist: It sounds to me [wife] that there have been a lot of incidents that have transpired in the past that have stuck with you, whether it's things that have been said in arguments that you've had or different things. And so kind of overall what I'm hearing, is it's not one thing that impacts the intimacy, but it's an accumulation of these things, all of these things, that impact the intimate relationship." |
| Utilizes a direct change strategy | "Therapist: Well what if you took her somewhere where she couldn't berate you? Like she wouldn't berate you in a big nice restaurant." |
| Asks for clarification | "Therapist: You mean fall apart in a way where [husband] starts to cry?" |
| Jokes | "Therapist: Everyone else's mess is always worse than your own." |
| Offers positive reinforcement or encouragement | "Therapist: There certainly seems to be a commitment here, to me, from my point of view." |
| Asks couple to fake an interaction | "Therapist: Because I want to, I want to do something here, I want you to fake him triggering your buttons." |
| Challenges client's position | "Therapist: But let's just look at the way you just said that, let's just look at the way you said that because you responded 'well I didn't have any place to go' kind of makes it sound like, well what better, when in fact I'm thinking, a guy who took care of himself growing up…" |
| Backs off his/her previous statement | "Therapist: I was actually being flippant in a way I shouldn't have been." |
| Engages in small talk or speaks about administrative items | "Therapist: We are already set for, okay, we're already set for, what is today, we're already set for Friday the tenth, correct?" |

Table 2

*Frequency Effect Sizes*

| Category | Successful | Un-successful Type A | Un-successful Type B | Combined Un-successful (Types A+B) | χ2 |
|---|---|---|---|---|---|
| Promotes client's focus on current emotional experience | 100% | 71% | 86% | 79% | 1.75†† |
| Reformulates client's emotions or behaviors as understandable reaction | 100% | 86% | 100% | 93% | 0.53 |
| Suggests or encourages soft expressions | 86% | 86% | 71% | 79% | 0.15 |
| Presents joint formulation of client and partner experience | 86% | 71% | 57% | 64% | 1.05 |
| Promotes client's focus on emotional experience in past incident | 57% | 71% | 71% | 71% | 0.43 |
| Asks for partner's reaction to or summary of client's experience | 29% | 57% | 71% | 64% | 2.39†† |
| Interrupts negative escalation | 14% | 14% | 57% | 36% | 3.28† |
| Dismisses, ignores, or moves away from client's emotional experience | 0% | 14% | 29% | 21% | 1.75 |
| Paraphrases or summarizes one partner's position | 86% | 100% | 86% | 93% | 0.28 |
| Adds meaning to or interprets one partner's position | 100% | 57% | 86% | 71% | 2.47†† |
| Asks for clarification | 86% | 100% | 100% | 100% | 2.10†† |
| Jokes | 29% | 14% | 43% | 29% | 0.00 |
| Offers positive reinforcement or encouragement | 14% | 29% | 57% | 43% | 1.05 |
| Asks couple to fake an interaction | 0% | 0% | 29% | 14% | 1.11 |
| Utilizes a direct change strategy | 29% | 0% | 29% | 14% | 0.13 |
| Challenges client's position or asks probing question | 29% | 57% | 29% | 43% | 0.4 |
| Backs off his/her previous statement | 57% | 43% | 14% | 29% | 2.68†† |

††$p < .2$, †$p < .1$

Table 3

*Intensity Effect Sizes*

| Category | Successful | Un-successful Type A | Un-successful Type B | Combined Un-successful (Types A+ B) | $\chi 2$ |
|---|---|---|---|---|---|
| Promotes client's focus on current emotional experience | 12% | 7% | 10% | 9% | 2.17 |
| Reformulates client's emotions or behaviors as understandable reaction | 25% | 13% | 16% | 15% | 6.24* |
| Suggests or encourages soft expressions | 18% | 12% | 8% | 10% | 4.14* |
| Presents joint formulation of client and partner experience | 12% | 9% | 7% | 8% | 2.08 |
| Promotes client's focus on emotional experience in past incident | 6% | 6% | 6% | 6% | 0.001 |
| Asks for partner's reaction to or summary of client's experience | 2% | 8% | 7% | 7% | 4.55* |
| Interrupts negative escalation | 1% | 1% | 5% | 3% | 1.08 |
| Dismisses, ignores, or moves away from client's emotional experience | 0% | 1% | 3% | 2% | 0.52 |
| Paraphrases or summarizes one partner's position | 13% | 23% | 15% | 19% | 2.00 |
| Adds meaning to or interprets one partner's position | 13% | 6% | 8% | 7% | 3.26† |
| Asks for clarification | 26% | 28% | 25% | 27% | 0.08 |
| Jokes | 3% | 1% | 3% | 2% | 0.08 |
| Offers positive reinforcement or encouragement | 1% | 1% | 2% | 2% | 0.79 |
| Asks couple to fake an interaction | 0% | 0% | 2% | 1% | 1.44 |
| Utilizes a direct change strategy | 5% | 0% | 7% | 4% | 0.75 |
| Challenges client's position | 2% | 5% | 5% | 5% | 2.21 |
| Backs off his/her previous statement | 4% | 1% | 1% | 1% | 5.55* |

†$p < .1$, *$p < .05$

Table 4

*Therapist Characteristics and Means (standard deviations) for Coded Therapist Behavior*

| Therapist | Gender | No. of Cases | Couples Improved by End of Tx | Validation of Husband | Validation of Wife | Encourage Husband Soft Expression | Encourage Wife Soft Expression | Present Joint Formula -tion | Ask Husband to Respond | Ask Wife to Respond | Interrupt Escala- tion | Direct Change Strategy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | F | 8 | 38% | 2.54 (1.50) | 3.25 (1.12) | 0.73 (1.20) | 1.48 (1.60) | 1.94 (1.46) | 0% | 4% | 4% | 0% |
| 2 | F | 8 | 88% | 2.56 (1.55) | 3.25 (1.49) | 1.13 (1.54) | 1.73 (1.79) | 1.88 (1.46) | 8% | 0% | 13% | 4% |
| 3 | M | 9 | 56% | 2.78 (1.28) | 2.87 (1.19) | 1.07 (1.60) | 0.81 (1.21) | 1.17 (1.26) | 22% | 22% | 11% | 7% |
| 4 | M | 9 | 78% | 3.11 (1.47) | 3.39 (1.58) | 1.39 (1.56) | 1.52 (1.50) | 2.17 (1.63) | 15% | 26% | 7% | 22% |
| 5 | M | 12 | 75% | 2.89 (1.61) | 2.94 (1.33) | 1.32 (1.22) | 1.44 (1.28) | 2.25 (1.49) | 3% | 3% | 8% | 14% |
| 6 | F | 13 | 62% | 3.19 (1.10) | 2.81 (1.70) | 1.29 (1.42) | 1.14 (1.39) | 1.69 (1.47) | 15% | 18% | 0% | 8% |
| 8 | M | 4 | 100% | 3.00 (0.83) | 2.88 (0.83) | 0.79 (1.18) | 1.33 (1.30) | 1.75 (0.89) | 25% | 17% | 0% | 50% |
| Total: | | 63 | 68% | 2.89 (1.38) | 3.04 (1.40) | 1.16 (1.40) | 1.34 (1.45) | 1.85 (1.46) | 12% | 13% | 6% | 12% |

From Change Processes to Change Mechanisms: The Link between In-session Empathic Joining and Changes in Acceptance and Behavior

Couples primarily enter couple therapy with the aim of improving their relationship satisfaction and preventing relationship deterioration. While several couple therapies have empirical support for their efficacy in achieving these goals, the proposed processes and mechanisms by which these outcomes are reached are largely understudied (Heatherington, Friedlander, & Greenberg, 2005). Change in couple therapy is presumed to occur in a sequence, such that processes occurring within therapy sessions lead to intermediate changes in the way the partners think or act outside of session, known as change mechanisms (See Figure 1). Change mechanisms are named as such because they are the means by which improvement in the actual outcome (e.g., increases in relationship satisfaction) occurs (Doss, 2004). In studies of Integrative Behavioral Couple Therapy (IBCT), several within-session client processes and out-of-session intermediate changes have been found to be associated with positive relationship outcomes (Cordova, Jacobson, & Christensen,1998; Doss, Thum, Sevier, Atkins, & Christensen, 2005). However, the link between within-session processes and proposed change mechanisms in IBCT has not been examined.

A key change mechanism in IBCT is an increase in acceptance of differences between partners. Similar to the notion of acceptance in individual therapies as a willingness to let go of the struggle with one's inner experience (e.g., Acceptance and Commitment Therapy; Hayes, Strosahl, & Wilson, 1999), acceptance in couple therapy is defined as a willingness to let go of the struggle to change the other partner.

Empathic joining is an intervention in IBCT that is meant to increase acceptance of partner differences. In this intervention, couples are encouraged to express greater vulnerability to each other around problem areas in their relationship as a means of increasing their intimacy

and understanding of one another. When this occurs in session, it changes the stimulus value of the partner's aversive behavior so that the subsequent occurrence of this behavior outside of session is experienced as less aversive (Cordova, 2001). For example, if a husband and wife typically have heated arguments about how much time the wife spends with her friends, they may each begin therapy with a change agenda: she wants him to stop nagging her about spending time with friends and he wants her to spend more time at home. If the husband is able to express vulnerability, such as feelings of hurt or fear, instead of anger during session, and these emotions are framed as understandable reactions to his personal history or their relationship history, this may change the way the wife views his "nagging" behavior. She may come to view it as an expression of care rather than a behavior that needs to change. Likewise, if the husband comes to a better understanding of his wife's behavior in context (e.g., an expression of their natural differences in sociability, a quality he actually appreciates in her), he may come to view the behavior as less rejecting and therefore feel less of a need to nag her about it.

A second change mechanism in IBCT is actual changes in the frequency of positive and negative behaviors. While this many sound contradictory to the goal of acceptance, it is actually the case that partner's willingness to give up the struggle to change the other partner can paradoxically lead to changes in that partner's behavior. In the example above, the husband, as a result of feeling better understood by his wife, may actually decrease his nagging behavior. Likewise, his wife, as a result of feeling closer to her husband, may desire to spend more time at home and decrease the amount of time she spends out with friends. Thus, successful empathic joining may both increase emotional acceptance between partners and impact behavioral frequency. There is already evidence to suggest that increases in acceptance, decreases in the frequency of negative behaviors, and increases in the frequency of positive behaviors are associated with better outcomes in IBCT, specifically with regards to "target behaviors," in a

study with the same sample as the proposed study (Doss et al., 2005). Target behaviors are those that couples identified as most problematic at the beginning of therapy. Given that they are the behaviors of primary concern and that this information was shared with the therapist at the beginning of therapy, these topics are more likely to arise during session than other behaviors. Therefore, we are more likely to find a link between in-session behaviors and changes in the acceptance and frequency of target behaviors than we would if we observed changes across negative and positive behaviors in general.

In a previous study (the first paper of this dissertation), we looked at the association between clinically significant change status and each of the client variables, and found that couples who improved in therapy were overall more frequently validating than those who did not improve in therapy. The present study expands on these findings in a couple key ways. For one, instead of looking at each client variable separately to see whether it differs for couples who improve in treatment compared to those who do not, the present study looks at all client process variables in the same model so that we may observe the relative contribution of each. Second, rather than a couple level outcome (reliable improvement in couple satisfaction), this study looks at each individual's change in mechanisms and change in relationship satisfaction as the outcome variables. Third, we look at changes between assessment time points rather than just the ultimate outcome of therapy.

There are three aims in this study, which are summarized in Figure 2. The first aim is to determine the link between client processes during empathic joining interventions and two change mechanisms: changes in acceptability of partner behaviors and changes in the frequency of partner behaviors. Couples who participated in the IBCT arm of a clinical trial completed an average of 23.5 sessions (maximum of 26 sessions). In the first study of this dissertation, three therapy sessions (one early, one middle, and one late) were selected per couple, and two client

processes were observed: 1) the degree to which clients expressed vulnerable and hard emotions, and 2) the degree to which clients were validating or invalidating to their partners. Couples also completed formal assessment measures at 4 time points, including a measure of relationship satisfaction at pre-treatment, 13-weeks into treatment, 26-weeks into treatment, and after the final session, and a measure of the frequency and acceptability of partner behaviors at the first 3 time points. This allowed us to examine whether client processes observed in the early and middle sessions are associated with changes in the frequency and acceptability of target behaviors from pre-treatment to 13 weeks and from 13 weeks to 26 weeks, respectively. Similarly, as a second aim, we examined the association between client processes observed in the early, middle, and late sessions and changes in relationship satisfaction, from pre-treatment to 13 weeks, 13 weeks to 26 weeks, and 26 weeks to final session. Specifically, we predicted that greater expressed vulnerability and validation and lower levels of hard expression and invalidation during therapy sessions would predict increases in acceptability of target behaviors, increases in the frequency of positive target behaviors/decreases in the frequency of negative target behaviors, and increases in relationship satisfaction. Given that a link between changes in the frequency and acceptability of target behaviors and changes in satisfaction has already been established (Doss et al., 2005), a final aim was to assess whether changes in the frequency and acceptability of target behaviors mediate the association between in-session behaviors and relationship satisfaction, as would be predicted by the model of change proposed by Doss (2004).

## Method

### Participants

As described in the first study, the participants include sixty-four couples who participated in the Integrative Behavioral Couple Therapy arm of a randomized controlled trial comparing IBCT to Traditional Behavioral Couple Therapy (TBCT).

## Procedure

**Therapy.** As part of a clinical trial, couples completed a maximum of 26 therapy sessions, with the mean of 23.5 sessions (*SD* = 4.7) for IBCT couples. Therapy sessions were required to be completed within a year of the couple's intake assessment (median weeks to completion = 36). All therapy sessions were videotaped. Therapists were trained and supervised in IBCT according to the treatment manual (Jacobson & Christensen, 1998). In IBCT, the therapist begins with an assessment and feedback portion of treatment, including 1 joint and 2 individual assessment sessions (sessions 1-3), followed by a feedback session (session 4) in which the therapist presents his or her initial formulation. In the remaining sessions, the therapist introduces a variety of intervention strategies aimed at acceptance or change as appropriate given the couple's formulation.

**Assessment.** Also as part of the clinical trial, formal assessment measures were administered at pre-treatment, 13 weeks after the start of therapy, 26 weeks after the start of therapy, and following the final session of therapy. Couples completed a battery of self-report measures and, on some occasions, observational measures, of individual and relationship functioning. The assessment measures of relevance to the current study are described under "Measures."

**Selection of sessions.** One early, one middle, and one late-stage therapy session were selected for each couple for coding. Sessions were selected to include an empathic joining intervention, as indicated by the therapist on the "therapist rating of sessions" form. The early session was the first session after session 5 that met this criterion, in order to exclude the assessment and feedback sessions (1-4) and the first treatment session (5), which is typically an introduction to treatment. The late session was the latest treatment session before the last session that met this criterion, as the last session is typically a wrap-up of treatment. The middle session

was the midpoint between the early and late sessions for each couple, with the caveat that it was required to fall between the 13-week and 26-week assessment time points. See Figure 3 for a timeline of assessments, session selection, and measures.

**Behavioral coding.** Two teams of 6 coders each were trained on the behavioral coding systems. Coders were trained on videos of sessions that were not included in the proposed study until they became adequately reliable. In addition, 1 session per week during the 10 weeks of coding was rated by all coders, checked for reliability, and discussed during a weekly meeting. The first team of coders was asked to rate the degree to which each partner expressed 5 vulnerable emotions, 5 hard emotions, and 3 positive emotions. The second team of coders was asked to rate the degree to which each partner responds to the other in a way that is validating (3 items) and the degree to which each partner responds to the other in a way that is invalidating (4 items). The coding systems are described in detail in "Measures" below. Each session was coded by two of the trained coders from each team. Coders rated each partner's behaviors for every 5-minute interval up to 50 minutes into the session, for a total of ten 5-minute segments per session. A timer was used to remind coders when to pause the recording and complete their ratings.

## Measures

**Relationship Satisfaction.** The Dyadic Adjustment Scale (DAS, Spanier, 1976), a widely used measure of relationship satisfaction that has been shown to have adequate reliability and validity, was administered at each assessment time point (pre-treatment, 13-wks, 26-wks, and post-treatment).

**Frequency and Acceptability of Partner Behavior Inventory (FAPBI)**. The FAPBI (Doss & Christensen, 2006) asks individuals to rate the frequency over the previous month at which their partner engaged in 11 positive behaviors (e.g., "In the past month, my partner was

verbally affectionate [e.g., complimented me, told me he/she loved me, said nice things]") and 9 negative behaviors (e.g., "In the past month, my partner was critical of me [e.g., blamed me for problems, put down what I did, made accusations about me]"). After rating the frequency, individuals were asked to rate on a 10 point scale how acceptable the partner's behavior is at that frequency. Each individual also selected the five partner behaviors they found most problematic, which we refer to as "target behaviors," as these were shared with the couple's therapist before the start of therapy. Target behaviors could be either positive (increases were desired) or negative (decreases were desired). To create "acceptability of target behaviors" and "frequency of target behaviors" scales, each item was standardized by dividing scores by the pre-treatment standard deviation in order to account for the fact that each individual selected different items with different average frequencies/acceptability ratings (e.g., 2 instances of betrayal is not equal to 2 instances of criticism). Acceptability of target behaviors was calculated as the average of the standardized ratings for the 5 target items at each time point. Frequency of target behaviors was calculated as was calculated as the average of the standardized frequencies for the 5 target behaviors at each time point, with negative behaviors reverse coded so that the scale reflects frequency of positive behaviors.

**Emotional Expression Coding System.** Each emotion was rated on a scale from 1-9 with 1 representing absence of expression and 9 representing high levels of expression. A *soft expression* scale was comprised of the 5 vulnerable emotions (hurt, sadness, fear/anxiety, disappointment, and guilt/embarrassment/shame). A *hard expression* scale was comprised of ratings for the 5 hard emotions (anger, irritation/annoyance, criticism, dominance, and contempt). We also measured 3 positive emotions (warmth, affection, and humor). The soft and hard expression scales were standardized within each coder and rescaled so that 0 indicated the absence of soft expression, averaged across coders. This resulted in adequate reliability for soft

expression (mean α = .80 , range α = .68 - .90) and hard expression (mean α = .75 , range α = .63 - .89).

**Responsiveness Coding System.** The degree to which each partner responds to the other in a way that is validating was measured by rating the three items, "acknowledges partner's perspective," "appears tuned into partner's feelings," and "shows an interest in understanding partner," on a scale from 1-9, with 1 representing the absence of the behavior, and 9 representing high levels of the behavior. The degree to which each partner responds to the other in a way that is invalidating was measured by rating 4 items, "responds defensively," "dismisses or minimizes partner's emotions or concerns," "shames or humiliates partner," and "withdraws, changes the topic, or refuses to discuss the issue," on a scale from 1-9, with 1 representing the absence of the behavior, and 9 representing high levels of the behavior. Due to low frequency of many of these behaviors and an extremely low range of the observed behaviors, the validation and invalidation scales were reduced to a dichotomous variable, coded as present (1) or not present (0). When there was disagreement between coders (33% of codes) a third coder was added.

**Data analysis**

All analyses were completed in HLM 7.0 (Raudenbush, Bryk, Cheong, Congdon, du Toit, 2011). To test the first aim that in session behaviors predict changes in frequency and acceptability of target behaviors (refer to Figure 2 for graphic summary of aims), we calculated change scores in frequency and acceptability of target behaviors from pre-treatment to 13-weeks and from 13-weeks to 26-weeks, and included in session behaviors for the early session as predictors of change from pre-treatment to 13 weeks, and in session behaviors for the middle session as predictors for change from 13-weeks to 26-weeks. We utilized a two-level model, with the two time points at level 1 with separate intercepts and predictors for husbands and wives, nested within couples at level 2. Client and partner soft and hard expression, and client

and partner validation and invalidation were included as predictors. When change in frequency was the outcome, we controlled for pre-treatment frequency, and when change in acceptability was the outcome, we controlled for pre-treatment acceptability, pre-treatment frequency, and change in frequency. Since the DAS was measured at all four time points including the final session, to test the second aim, we were able to assess whether behaviors during the early, middle, and late sessions predict changes in relationship satisfaction from pre-treatment to 13-weeks, 13-weeks to 26-weeks, and 26-weeks to final session, respectively. Again, we calculated change scores as the outcome variable and utilized a two-level model, with the three time points at level 1 with separate intercepts and predictors for husbands and wives, nested within couples at level 2. Analyses controlled for pre-treatment DAS and included client and partner level of soft and hard expression, and client and partner percent validation and invalidation.

Finally, to test the third aim that changes in frequency and acceptability of target behavior mediate the relationship between client behavior during therapy sessions and outcome (e.g., the relationship between in-session vulnerability and changes in marital satisfaction is explained by changes in the acceptability of target behaviors), we tested a 2-level (individuals nested within couples) mediation model, with overall change in relationship satisfaction, as measured by the DAS, from pre-treatment to final session as the outcome, and change in frequency and acceptability of target behaviors by 26-weeks as potential mediators. For each client process variable, we took the average for all sessions occurring prior to the 26-week assessment in order to test the directional hypothesis that the process variables lead to change in the mediators which lead to change in the outcome. Since each of these variables are at the individual level (level 1), and since there were only 2 measurements per couple, thus precluding the inclusion of more than one random effect at level 2, mediation was assessed using the following three equations (Krull & MacKinnon, 2001):

Equation 1:

L1: $Y_{ij} = B_{0j} + B_c X_{ij} + r_{ij}$

L2: $B_{0j} = G_{00} + u_{0j}$

Equation 2:

L1: $Y_{ij} = B_{0j} + B_{c'} X_{ij} + B_b M_{ij} + r_{ij}$

L2: $B_{0j} = G_{00} + u_{0j}$

Equation 3:

L1: $M_{ij} = B_{0j} + B_a X_{ij} + r_{ij}$

L2: $B_{0j} = G_{00} + u_{0j}$

Here, $Y_{ij}$ is the change in satisfaction score, $X_{ij}$ is the average client in-session behavior, and $M_{ij}$ is the change in frequency or acceptability score, for individual i in couple j. Since we tested two mediators, we included both frequency and acceptability as mediators in equation 2, and a separate equation 3 for each, and then calculated a mediated effect for each as $B_a B_b$, and the standard error for the mediated effect as $\hat{s}_{\beta_a \beta_b} = \sqrt{\hat{s}^2_{\beta_a} \hat{\beta}^2_b + \hat{s}^2_{\beta_b} \hat{\beta}^2_a}$, as suggested by Krull and McKinnon (2001).

## Results

### Aim 1: Change in frequency and acceptability of target behaviors

**Frequency.** Controlling for pre-treatment reports of frequency of target behaviors, change in husbands' reports of frequency of target behaviors between assessment points was significantly predicted by their partners' in session levels of validation prior to the assessment ($\beta = .65$, $SE = .22$, $p < .01$), with higher percentages of segments containing wife validation predicting greater increases in husband's report of frequency of target behaviors. For wives, controlling for their reports of frequency of target behaviors at pre-treatment, greater increases in

their reports of the frequency of target behaviors between assessment points was predicted by lower levels of their own hard expression in a session prior to the assessment ($\beta = -.29$, $SE = .12$, $p < .05$).

**Acceptability.** Controlling for changes in frequency, pre-treatment levels of acceptability, and pre-treatment levels of frequency, there were no client in-session behaviors that significantly predicted changes in acceptability between assessment points.

### Aim 2: Change in relationship satisfaction

Controlling for pre-treatment relationship satisfaction, changes in relationship satisfaction between assessment points for wives was significantly predicted by wives' levels of soft expression ($\beta = -3.75$, $SE = 1.63$, $p < .05$) and invalidation ($\beta = -12.52$, $SE = 6.34$, $p = .05$) during a session preceding the assessment. Wives reported greater increases in relationship satisfaction following sessions where they expressed less soft emotion and were less frequently invalidating. There were no client in-session behaviors that predicted change in relationship satisfaction between assessment points for husbands.

### Aim 3: Change mechanisms as mediators

To examine meditational hypotheses, we first calculated equation 1 for each of the in-session behaviors (separate equations for each behavior) to determine which were related to overall change in relationship satisfaction from pre-treatment to final session. Since many of our previous analyses demonstrated an effect of gender, we also added gender and its interactions with the in-session behavior and control variables. Controlling for pre-treatment DAS, and pre-treatment acceptability and frequency of target behaviors, average hard expression prior to the 26-week assessment was related to change in DAS by final session ($\beta = -10.94$, $SE = 4.55$, $p = .05$), such that less hard expression predicted greater increase in relationship satisfaction. The gender interaction was significant ($\beta = 9.24$, $SE = 4.42$, $p < .05$), indicating that the effect was

stronger for husbands than wives. Client invalidation was also associated with change in DAS ($\beta = -22.42$, *SE* = 10.39, $p < .05$), such that a lower percentage of segments containing client invalidation was associated with greater increases in DAS. Again, the gender interaction was significant ($\beta = -19.43$, *SE* = 8.93, $p < .05$), indicating that the effect was stronger for husbands than for wives. Likewise, a lower percentage of segments containing partner invalidation prior to 26-weeks predicted greater increase in relationship satisfaction by the end of treatment ($\beta = -16.75$, *SE* = 7.61, $p < .05$). Here, too, the gender interaction was marginally significant ($\beta = 17.53$, *SE* = 8.30, $p < .05$), indicating a stronger effect for husbands than wives. Finally, a higher percentage of partner validation prior to 26-weeks was a marginally significant predictor of greater increases in relationship satisfaction by the end of treatment ($\beta = 14.71$, *SE* = 8.24, $p < .1$). The gender interaction was not significant, indicating that this effect was similar for both husbands and wives.

Next, equations 2 and 3 were calculated for each of the four in-session behaviors associated with change in relationship satisfaction (hard expression, invalidation, partner invalidation, partner validation). For better ease of computation of the mediated effect and standard error, each model was run twice, once with husbands coded 0 and once with wives coded 0. Mediation results are presented in Table 1. There was only one significant mediated effect; the association between wife hard expression and wife change in relationship satisfaction by final session was mediated by changes in wife report of husband's frequency of target behaviors by 26-weeks. While a number of in-session behaviors were related to changes in acceptance and frequency by 26-weeks ($\beta_a$), only wives' reports of changes in frequency of target behaviors were significantly related to changes in relationship satisfaction by final session in models including the in-session behavior ($\beta_b$).

## Discussion

In the present study, our aims were to 1) examine client in-session behaviors as predictors of change from the assessment point prior to the session to the next assessment point following the session in two mechanisms of change (frequency and acceptability of target behaviors), 2) examine client in-session behaviors as predictors of change in the primary therapy outcome (relationship satisfaction), and 3) observe whether the association between client in-session behaviors and changes in relationship satisfaction by the final session was mediated by the client's reported changes in frequency and/or acceptability of target behaviors.

With regards to changes in reported frequency of target behaviors between assessment points (aim 1), husbands report greater positive changes in wife behavior following sessions with greater wife validation, and wives report greater positive changes in husband behavior following sessions in which they express less hard expression. This suggests that perceived positive changes in behavior occur following sessions in which wives are less angry and critical and demonstrate greater understanding of their husbands. This is in line with the idea that lesser demands for change and increased understanding or acceptance can paradoxically lead to changes in behavior. However, we cannot necessarily infer the direction of this effect, because although the 13 and 26 week assessments were known to occur after the coded early and middle therapy session, respectively, we do not know the exact timing of when the behaviors themselves changed. Thus, it is possible that wives demonstrate less criticism in reaction to perceived positive changes in their husbands' behavior, and possible, though less plausible, that wives' positive changes in behavior lead to their demonstration of greater understanding in session.

Once controlling for changes in frequency, changes in acceptability of target behaviors were not associated with any of the in-session behaviors. Changes in acceptability also did not contribute above and beyond changes in frequency in predicting changes in relationship

satisfaction by the end of treatment. This differs from the Doss et al. (2005) findings with this same sample indicating an association between both changes in frequency and acceptability and changes in relationship satisfaction in early therapy, and between changes in acceptability, but not frequency, and changes in relationship satisfaction in late therapy. This difference is likely due to methodological differences (Doss et al. used 26-week and 6 month ratings to compute empirical Bayes estimates of final session ratings on the FAPB, while the present study used 26-week ratings to predict final session changes in relationship satisfaction) and decreased power from using only IBCT couples rather than the full sample of 134 couples in both IBCT and TBCT arms of the clinical trial. Another consideration in terms of explaining the lack of association between acceptability and in-session behaviors/changes in satisfaction is the extent to which changes in ratings on the FAPBI acceptability questions entirely captures the construct of increased acceptance. One might view engaging in a behavior, such as an instance of problematic alcohol use, as relatively unacceptable, yet still have developed an increased understanding for the partner's difficulties and emotional vulnerabilities around alcohol use and thus behaviorally react to the partner in a way that is less invalidating and more validating while still encouraging change. Similar to the dialectical stance taken in Dialectical Behavior Therapy (Linehan, 1993) that clients are both doing the best they can (validation) and needing to do better (encouragement of change), partners may develop and demonstrate increased understanding of their partners, while still believing that behavioral change is necessary. Thus a measure of the extent to which clients feel validated or invalidated by their partners outside of session may show a greater association with in-session validation and invalidation and have better predictive power for change in relationship satisfaction above and beyond changes in frequency of behaviors than a measure of the acceptability of those particular behaviors.

Controlling for other client processes and pre-treatment relationship satisfaction, increases in relationship satisfaction between assessment points for wives was predicted by less frequent wife invalidation and less wife soft expression in the session occurring at some point prior to the assessment. Thus, wives who were becoming more satisfied were both expressing less distress during sessions and reacting to their husbands in a way that is less defensive and dismissive. Interestingly, there were no predictors of change in relationship satisfaction for husbands, and, although the first study of this dissertation showed overall higher levels of validation for improved couples, validation and partner validation were not predictors of change in satisfaction between assessments when controlling for all other client variables and pre-treatment satisfaction. This may indicate that validation has a cumulative or delayed effect in improving relationship satisfaction, while invalidation and soft expression are associated with more proximal changes in wives' satisfaction.

In mediation analyses, only wives' reports of changes in the frequency of their husbands' behavior were significantly related to changes in relationship satisfaction, so change in frequency of target behaviors reported by wives was the only potential mediator. That change in behavior was a significant predictor for wives but not husbands is perhaps not surprising, as it is not uncommon in couple therapy for one partner to come into therapy desiring change while the other simply desires the other partner to stop expressing so much distress, and the change desiring partner is more often female (Jacobsen & Christensen, 1996). The only significant mediated effect observed in this study was that the relationship between wives' average hard expression during sessions prior to 26-weeks and changes in their relationship satisfaction by the final session was mediated by changes in their reports of their husband's frequency of target behaviors. As noted in the discussion of predictors of changes in frequency above, while this finding fits with the theory that decreased demands for change may in fact promote change

which then increases satisfaction, we are limited in that we cannot make any causal or directional statements.

Another limitation of this study is that we use client behavior during one session as a proxy for their typical behavior during all of the sessions between assessment points. An average of 2 or more sessions between each assessment would provide a better estimate of in-session behavior patterns during each phase of therapy, as the behavior observed during the one session selected could, by chance, be an anomaly for some couples. Alternately, a better design for testing the effect of within session behaviors on out of session change and ultimately change in satisfaction would be to observe behavior at each session, measure reported behaviors between sessions, and measure relationship satisfaction at the beginning and end of each session. Such a design may be burdensome to participants depending on the length of measures, but would provide better ability to make statements about the direction of effects. Further, to make any sort of causal statements would require inclusion of a no-treatment control group (Kraemer, Wilson, Fairburn, & Agras) or a regression discontinuity design (Doss & Atkins, 2006).

We also acknowledge that the findings cannot generalize beyond the cultural context of the current sample. While the study included a relatively ethnically diverse sample compared to previous couple therapy treatment studies (Christensen et al., 2004), participants were recruited from the Los Angeles and Seattle areas and were excluded if they were not legally married or had less than a high school level of education, limiting our ability to generalize to other areas of the country or other countries, and to unmarried couples or those with fewer years of education. In addition, societal shifts in gender norms over the last 10 years since the data was collected may influence the extent to which we see such strong gender differences associated with these processes if we were to replicate the study today.

Despite its limitations, the current study has clinical implications regarding the IBCT strategy of empathic joining. Empathic joining interventions are aimed as eliciting emotional experiences and softening the client's expression of hard emotions so that the partner may better hear and understand the client's experience and respond in a way that is validating, or at the very least, non-defensively and without invalidation. In theory, these in-session moments of intimacy should lead to greater acceptance and positive changes in one's response to the partner outside of session, and ultimately to improved relationship satisfaction. Contrary to expectations, in the current study, the expression of soft emotion in session is not associated with improvement, and in fact is indicative of relationship dissatisfaction for wives. Our findings suggest that it may be less important to elicit soft disclosure than it is to decrease hard expression and make each partner's experience understandable. Further, moments of demonstrated understanding and acceptance in session (e.g., wife validation) and lack of expressed blame and criticism (e.g., wife hard expression) are more strongly related to changes in behavior than changes in acceptability outside of session, suggesting that contingency-shaped behavior change may be the mechanism by which empathic joining improves relationships rather than cognitive changes regarding the acceptability of unwanted behaviors. In addition, while further research is needed to examine this explicitly, the gender differences observed in this study suggest that individual differences in expressiveness and typical roles in conflict patterns may moderate the impact of empathic joining. Finally, as empathic joining is only one strategy used in IBCT, future research might also examine interactions with other interventions (e.g., unified detachment) and resultant client processes (e.g., non-blaming descriptions of patterns).

The present study provides some evidence to suggest that wives' expressive behavior and demonstration of understanding/lack of invalidation in session is predictive of positive changes in problematic behavior outside of session for both husbands and wives and of changes in wives'

own satisfaction, suggesting that, especially for wives, de-escalating hard expression and making the partner's behavior understandable are important tasks of the therapist in IBCT. Studies designed specifically to test treatment mediators in IBCT would further aid in our understanding of how the treatment brings about change, so that we may target clinical interventions with couples accordingly.

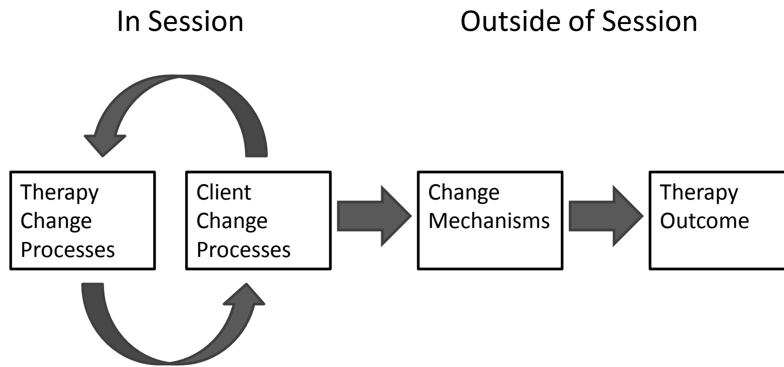
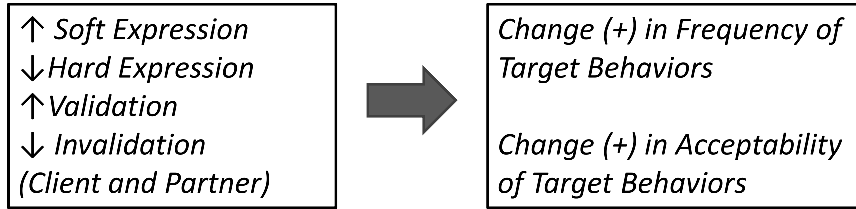
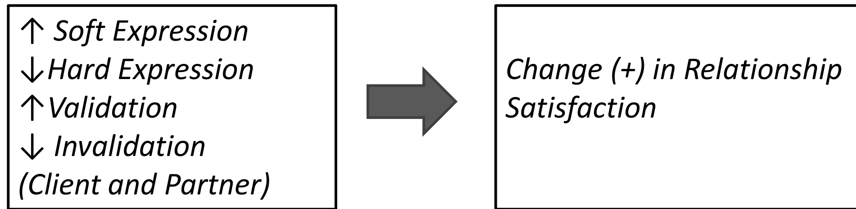



*Figure 1.* Components of change in psychotherapy, Doss (2004)

**Aim 1:**




**Aim 2:**




**Aim 3:**

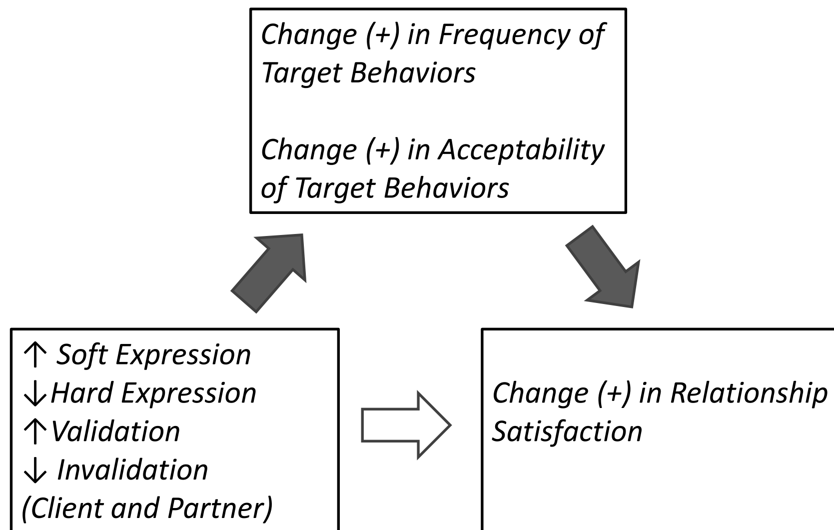



*Figure 2.* Study Aims

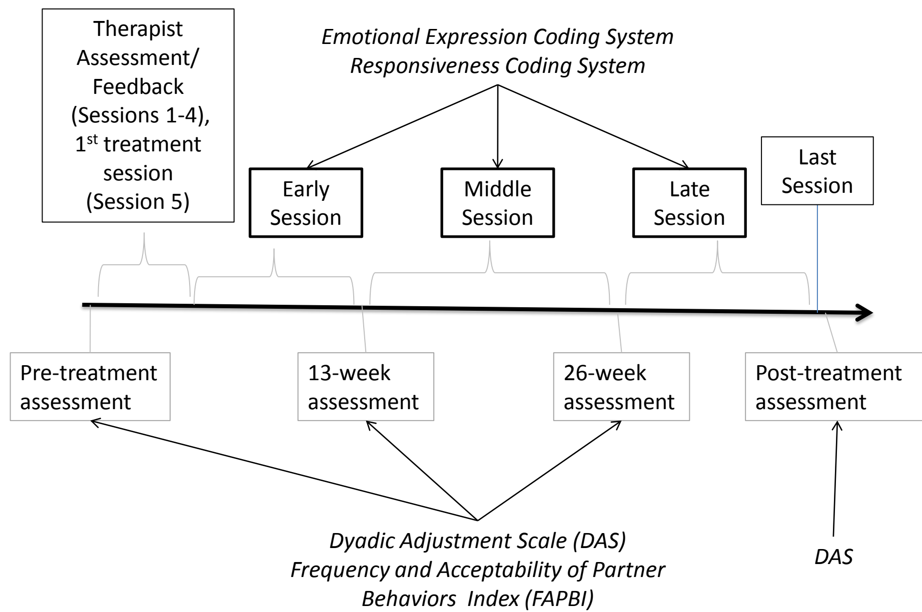



*Figure 3.* Timeline of assessment points and study measures.

Table 1

*Betas (standard errors) for effects of client in-session behaviors on mediators, mediators on outcome, and calculated mediated effect*

| Client In-session Behavior | Mediator | Gender | $\beta_a$ | $\beta_b$ | Mediated Effect |
|---|---|---|---|---|---|
| Hard Expression | Frequency | Husbands | -0.79***<br>(0.12) | 2.95<br>(4.85) | -2.33<br>(3.85) |
| | | Wives | -0.29**<br>(0.10) | 13.26***<br>(3.74) | -3.85*<br>(1.71) |
| | Acceptability | Husbands | -0.61**<br>(0.18) | 1.92<br>(2.87) | -1.17<br>(1.78) |
| | | Wives | -0.34*<br>(0.14) | -0.8<br>(2.99) | 0.27<br>(1.02) |
| Invalidation | Frequency | Husbands | -1.34***<br>(0.29) | 4.03<br>(4.62) | -5.40<br>(6.30) |
| | | Wives | -0.47†<br>(0.27) | 12.56**<br>(3.92) | -5.90<br>(3.86) |
| | Acceptability | Husbands | -1.25**<br>(0.40) | 1.51<br>(2.85) | -1.89<br>(3.61) |
| | | Wives | -1.05**<br>(0.34) | -0.35<br>(3.35) | 0.37<br>(3.52) |
| Partner Validation | Frequency | Husbands | 0.87**<br>(0.24) | 5.90<br>(3.89) | 5.13<br>(3.67) |
| | | Wives | 0.45†<br>(0.24) | 13.32**<br>(3.82) | 5.99<br>(1.65) |
| | Acceptability | Husbands | 0.61†<br>(0.34) | 1.95<br>(2.57) | 1.19<br>(1.70) |
| | | Wives | 0.68†<br>(0.34) | -1.53<br>(2.72) | -1.04<br>(1.92) |
| Partner Invalidation | Frequency | Husbands | -0.83**<br>(0.25) | 3.95<br>(4.37) | -3.28<br>(3.76) |
| | | Wives | -0.21<br>(0.30) | 12.94**<br>(3.79) | -2.72<br>(3.96) |
| | Acceptability | Husbands | -0.67†<br>(0.38) | 2.02<br>(2.75) | -1.35<br>(3.96) |
| | | Wives | -1.00**<br>(0.37) | -0.4<br>(3.23) | 0.40<br>(3.23) |

†p<.1, *p<.05, **p<.01, ***p<.001

## Conclusion

The three studies of this dissertation provide some guidance for what client and therapist in-session processes are good candidates for future research on change processes in IBCT. The first study demonstrated that a higher level of client validation is associated with clinically significant improvement in relationship satisfaction. Further, decreases in hard expression and invalidation were observed over time for wives, regardless of improvement status, suggesting that de-escalation may be necessary, but not sufficient, for change in therapy outcome. We also observed some interactive processes among variables within sessions, such that husbands in improved couples were more likely to validate in segments of therapy containing higher levels of wife soft expression over time, and partners in improved couples become somewhat less likely to invalidate in segments of therapy containing higher levels of their partner's hard expression over time, suggesting that couples who improve may show some change in their reactions to one another's emotional expression over time. The second study provided some clues as to what therapist behaviors may be important in bringing about desired client behaviors in empathic joining. Of note, therapist validation was associated with greater soft expression for both husbands and wives and with higher instances of "successful empathic joining," defined as a segment containing both soft expression and partner validation, while interruption by the therapist is often associated with segments containing invalidation or higher hard expression. Finally, the third study demonstrated an association between in-session behaviors (wife hard expression and validation) and change in the frequency of target behaviors outside of session. Further, the association between wife hard expression and change in their relationship satisfaction was found to be mediated by positive changes in their reported frequency of their husband's behavior. Overall, processes around building understanding and de-escalating within sessions, their causal links to behavioral change and demonstrations of validation/invalidation

outside of session, and the relative contribution of in-session and out-of-session change to change in relationship satisfaction are promising directions for future research.

The present studies took an in depth look at one IBCT intervention, empathic joining, but future research might also examine processes central to other acceptance-based interventions, such as unified detachment, or treatment components, such as the feedback session. Some researchers have also advocated for experimental examination of principles of change that are common across therapies as opposed to comparisons of particular treatment packages (e.g., Benson, McGinn, & Christensen, 2012). In either case, continuing to examine why couple therapy works is an important endeavor. In a new development since the start of this dissertation project, IBCT is currently being disseminated nationally by the Veteran's Administration as an evidenced-based treatment for couple distress. While there is clearly a need for couple therapy among veteran families (Karney & Crown, 2007), it is also the case that veterans with demonstrated mental health needs, particularly in the cohort of younger returning vets, do not, on average, utilize a large number of sessions. For instance, Seal and colleagues (2010) found that in a sample of 49,425 OIF/OEF veterans with newly diagnosed posttraumatic stress disorder (PTSD), only 9.5% attended the recommended dose of at least 9 mental health sessions within 15 weeks in the first year of diagnosis. In the broader community, access to couple therapy is also limited for those without financial means, as couple therapy is typically not covered by insurance. Thus, it is of particular importance that couple therapies become more efficient and cost effective, and identifying the most powerful components is instrumental towards this aim.

It also continues to be of interest whether there are treatment moderators in terms of who might benefit from particular interventions or change principles. Military culture is a good example of one in which emotional expression is highly discouraged and even experientially associated with decreased chance of survival. We do not know the extent to which use of

empathic joining within a culture that is typically less expressive, or with individuals who are more likely to be alexithymic, perhaps secondary to conditions such as PTSD (Frewen, Dozois, Neufeld & Lanius, 2008), is of increased benefit or, conversely, less likely to produce change. Likewise, cultures outside the United States or western society may also be more or less likely to benefit from interventions particular to IBCT. The more we learn about factors that explain what works and for whom, the better we will be able to effectively improve relationships in distress.

**APPENDIX: Copies of all Measures**

*Dyadic Adjustment Scale*

Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

| | Alway s Agree | Almost Always Agree | Occasion ally Disagree | Frequent ly Disagree | Almost Always Disagree | Always Disagree |
|---|---|---|---|---|---|---|
| Handling family finances | **O** | **O** | **O** | **O** | **O** | **O** |
| Matters of recreation | **O** | **O** | **O** | **O** | **O** | **O** |
| Religious matters | **O** | **O** | **O** | **O** | **O** | **O** |
| Demonstration of affection | **O** | **O** | **O** | **O** | **O** | **O** |
| Friends | **O** | **O** | **O** | **O** | **O** | **O** |
| Sex relations | **O** | **O** | **O** | **O** | **O** | **O** |
| Conventionality (correct or proper behavior) | **O** | **O** | **O** | **O** | **O** | **O** |
| Philosophy of life | **O** | **O** | **O** | **O** | **O** | **O** |
| Ways of dealing with parents or in-laws | **O** | **O** | **O** | **O** | **O** | **O** |
| Aims, goals, and things believed important | **O** | **O** | **O** | **O** | **O** | **O** |
| Amount of time spent together | **O** | **O** | **O** | **O** | **O** | **O** |
| Making major decisions | **O** | **O** | **O** | **O** | **O** | **O** |
| Household tasks | **O** | **O** | **O** | **O** | **O** | **O** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Leisure time interests and activities | O | O | O | O | O | O |
| Career decisions | O | O | O | O | O | O |

| | All the Time | Most of the Time | More Often Than Not | Occasionall y | Rarely | Never |
|---|---|---|---|---|---|---|
| 16. How often do you discuss or have you considered divorce, separation, or termination of your relationship? | O | O | O | O | O | O |
| 17. How often do you or your mate leave the house after a fight? | O | O | O | O | O | O |
| 18. In general, how often do you think that things between you and your partner are going well? | O | O | O | O | O | O |
| 19. Do you confide in your mate? | O | O | O | O | O | O |
| 20. Do you ever regret that you married (or lived together)? | O | O | O | O | O | O |
| 21. How often do you and your partner quarrel? | O | O | O | O | O | O |
| 22. How often do you and your mate get on each others' nerves? | O | O | O | O | O | O |

| | Every Day | Almost Every Day | Occasiona lly | Rarely | Never |
|---|---|---|---|---|---|
| 23. Do you kiss your mate? | **O** | **O** | **O** | **O** | **O** |

| | All of Them | Most of Them | Some of Them | Very Few of Them | None of Them |
|---|---|---|---|---|---|
| 24. Do you and your mate engage in outside interests together? | **O** | **O** | **O** | **O** | **O** |

How often do the following occur between you and your mate?

| | Never | Less than Once a Month | Once or Twice a Month | Once or Twice a Week | Once a Day | More Often |
|---|---|---|---|---|---|---|
| 25. Have a stimulating exchange of ideas | **O** | **O** | **O** | **O** | **O** | **O** |
| 26. Laugh together | **O** | **O** | **O** | **O** | **O** | **O** |
| 27. Calmly discuss something | **O** | **O** | **O** | **O** | **O** | **O** |
| 28. Work together on a project | **O** | **O** | **O** | **O** | **O** | **O** |

These are some things about which couples sometimes agree or disagree. Indicate if either item below caused differences of opinions or were problems in the past few weeks (fill in yes or no).

| | **Yes** | **No** |
|---|---|---|
| 29. Being too tired for sex | **O** | **O** |
| 30. Not showing love | **O** | **O** |

31. The bubbles on the following line represent different degrees of happiness in your relationship. The middle point, "happy", represents the degree of happiness of most relationships. Please fill in the bubble which best describes the degree of happiness, all things considered, of your relationship.

| **O** | **O** | **O** | **O** | **O** | **O** | **O** |
|---|---|---|---|---|---|---|
| Extremely Unhappy | Fairly Unhappy | A Little Unhappy | Happy | Very Happy | Extremely Happy | Perfect |

32. Which of the following statements best describes how you feel about the future of your relationship? Fill in the one circle for the most accurate statement.

**O** I want desperately for my relationship to succeed, and would go to almost any length to see that it does.

**O** I want very much for my relationship to succeed, and will do all I can to see that it does.

**O** I want very much for my relationship to succeed, and will do my fair share to see that it does.

**O** It would be nice if my relationship succeeded, but I can't do much more than I am doing now to keep the relationship going.

**O** It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

**O** My relationship can never succeed, and there is no more that I can do to keep the relationship going.

*Frequency and Acceptability of Partner Behavior*

In every relationship there are positive behaviors that individuals like their partner to do, and negative behaviors that individuals don't like their partner to do. The following pages list typical behaviors that can cause relationship satisfaction or dissatisfaction. For each behavior listed below:

A) Give an estimate of the frequency of that behavior in the past month. Estimate the number of times (0-9) that behavior has occurred this past month either per day, week, or month. For instance, if a behavior occurred twice a week, you can either estimate it as 2 times per week or 8 times per month. In the example below, the spouse indicated that his/her partner initiated physical affection about 2 times per week in the last month. If a behavior occurred at least once in the past month, do NOT estimate it as zero times per day or zero times per week.

B) After you have estimated the frequency of the behavior in the past month, then rate how acceptable it is to you that this behavior has occurred at the specified frequency in the past month. Use the low end of the scale to rate behaviors whose frequency in the last month is unacceptable, intolerable, and unbearable. Use the high end of the scale to rate behaviors whose frequency in the last month is acceptable, even desirable. If the behavior has not happened in the last month, respond with zero times per month then rate how acceptable it is to you that the behavior has not happened in the past month.

Positive Partner Behaviors

1. In the past month, my partner was physically affectionate (e.g., held my hand, kissed me, hugged me, put arm around me, responded when I initiated affection)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was physically affectionate at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

2. In the past month, my partner was verbally affectionate (e.g., complimented me, told me he/she loves me, said nice things)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was verbally affectionate at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

3. In the past month, my partner did housework (include times when partner initiated the housework as well as when you suggested it and partner did it—e.g., cooked, did the dishes, cleaned the house, did the laundry, went grocery shopping, washed car, took out the trash)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner did housework at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

4. In the past month, my partner did child care (e.g., took care of the children, helped them with homework, played with them, disciplined them) [NOTE: If you and your partner do not care for children, please write N/A next to this item, leave the bubbles blank, and move on to the next item.]

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner did childcare at this frequency in the past month?
Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

5. In the past month, my partner confided in me (e.g., shared with me what he/she felt, confided in me his/her successes and failures)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner confided in you at this frequency in the past month?
Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

6. In the past month, my partner engaged in sexual activity with me (e.g., can include sexual intercourse or any other significant sexual activity, whether initiated by you or your partner)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner engaged in sexual activity at this frequency in the past month?
Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

7. In the past month, my partner was supportive of me when I had problems (e.g., listened to my problems, sympathized with me, helped me out with my difficulties)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was supportive of you at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

8. In the past month, my partner did social or recreational activities with me (e.g., went to movies, dinner, concerts, hiking, etc. with me, include times when partner initiated these events as well as times when you or others initiated them)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner did social activities at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

9. In the past month, my partner socialized with my family or my friends (e.g., visited my family or friends with me, was responsive when they called, joined me for outings with my family or friends)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner socialized with your friends at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

10. In the past month, my partner discussed problems in our relationship with me and tried to solve those problems (e.g., talked with me about relationship problems, tried to constructively solve those problems)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner discussed problems with you at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9
Totally Acceptable

11. In the past month, my partner participated in the financial responsibilities of the family (e.g., helped make financial decisions, paid bills, consulted me before making major purchases)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner participated in finances at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

12. Positive behavior(s) not included that you found important in the last month. Behavior: ______________________________

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner did this positive behavior at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9
Totally Acceptable

Negative Partner Behaviors

13. In the past month, my partner was critical of me (e.g., blamed me for problems, put down what I did, made accusations about me)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was critical of you at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

14. In the past month, my partner was dishonest with me (e.g., lied to me, failed to tell me things I wanted or needed to know, twisted the facts so I didn’t find out what really happened)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was dishonest with you at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

15. In the past month, my partner was inappropriate with members of the opposite sex (e.g., was too flirtatious with other men/women, had secret meetings with them, made passes at them, or had affairs)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was sexually inappropriate at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

16. In the past month, my partner did not follow through with his/her agreements (e.g., didn't do what she/he said she/he would do, went back on his/her word)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner did not follow agreements at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

17. In the past month, my partner was verbally abusive with me (e.g., swore at me, called me names, yelled or screamed)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was verbally abusive at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

18. In the past month, my partner was physically abusive with me (e.g., pushed, shoved, kicked, bit or hit me, or threw things)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was physically abusive at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

19. In the past month, my partner was controlling and bossy (e.g., did things without consulting with me first, insisted on his/her way, didn't listen to what I wanted, manipulated things so she/he got what she/he wanted)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner was controlling and bossy at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

20. In the past month, my partner invaded my privacy (e.g., opened my mail, listened in on my conversations with friends or family)

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner invaded your privacy at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

21. In the past month, my partner engaged in addictive behavior (such as smoking, using drugs, drinking alcohol, etc.) that bothered me. NOTE: Please include what the behavior was ________________.

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner engaged in this addiction at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

22. Negative behavior(s) not included that you found important in the last month. Behavior: ___________________________

Frequency: _______ times per: Day Week Month (circle one)

Acceptability: How acceptable is it to you that your partner did this negative behavior at this frequency in the past month?

Totally Unacceptable 0 1 2 3 4 5 6 7 8 9 Totally Acceptable

Items of Most Concern to You:

Out of the behaviors you rated on this questionnaire, what are the 5 behaviors (positive or negative) that were of most concern to you or that troubled you the most in the last month? For example, if item 14 was of most concern, you would write the number 14, then indicate the issue was criticism (see example below). PLEASE DO NOT put more than one item on each line, and please do your best to chose 5 items as requested

EXAMPLE:
Item of Most Concern: Item # on this questionnaire __14__Item Topic _critical of me

WHAT IS YOUR:
Item of Most Concern: Item # on this questionnaire ______Item Topic ______________
Item of 2nd Most Concern: Item # on this questionnaire ______Item Topic ______________
Item of 3rd Most Concern: Item # on this questionnaire ______Item Topic ______________
Item of 4th Most Concern: Item # on this questionnaire ______Item Topic ______________
Item of 5th Most Concern: Item # on this questionnaire ______Item Topic ______________

*Emotional Expression Coding System*

Instructions to Coders: For each 5-minute segment, up to 50 minutes, you will rate each partner's expression of the emotions listed below. Emotional expression includes verbal and non-verbal behaviors that communicate an emotion. Note that you are rating based on what the individual is actually expressing/communicating, not on what you think he or she may be feeling. You will rate the extent to which the partner clearly and genuinely expresses each emotion on a scale from 1 (not at all) to 9 (extremely).

Sadness
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Anger
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Hurt
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Affection
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Criticism
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Anxiety/Fear
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Annoyance/Irritation
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Humor
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Contempt
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Guilt/Embarrassment/Shame
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Warmth
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Dominance
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Disappointment
Not at All 1 2 3 4 5 6 7 8 9 Extremely

*Responsiveness Coding System*

Instructions to Coders: For each 5-minute segment, up to 50 minutes, you will rate each partner on the behaviors listed below. You are rating each individual in terms of how he or she responds to his or her partner's verbal expression. This may include non-verbal behaviors while the partner is speaking, such as nodding or shaking the head, or verbal behaviors in response to the partner. You will rate the extent to which each partner displays each behavior on a scale from 1 (not at all) to 9 (extremely).

Acknowledges partner's perspective
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Responds defensively
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Appears tuned into partner's feelings
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Minimizes or dismisses partner's feelings
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Shames or humiliates partner
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Shows an interest in understanding partner
Not at All 1 2 3 4 5 6 7 8 9 Extremely

Withdraws, changes the topic, or refuses to discuss
Not at All 1 2 3 4 5 6 7 8 9 Extremely

**Therapist Behavior Coding Manual**

Rate the following on the scale provided.

1) Therapist's Level of Validation of Wife

None>>Paying attention>>Accurately paraphrases/Summarizes>>Adds meaning to summary>>Makes understandable>>Makes understandable in greater depth

| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| [gives no verbal indication of listening] | "MmHmm"<br><br>[repeats exactly what was said] | "He will retreat."<br><br>"It blew everything up." | "And then, your understanding was that [husband] was going to be home by one."<br><br>"You don't think of yourself in terms of labels." | "And [Wife] it sounds like you're experiencing that as getting a third degree."<br><br>"So I think, and you can tell me if this is a correct translation, is what you were wanting from [husband] is for him to understand how you saw it, that you too had been hurt and that the two of you share responsibility" | "It's so foreign to you because that's not your own style. You're a survivor and you're somebody who will take the bull by the horns and just do it."<br><br>"Well, you're, you're attempting. I think, I'm suspecting, when you went to [husband], it wasn't just, do you see the finance charge, you're also trying to like, Come on, talk to me, you know, like, Open up." | "Therapist: So it's really, it's such a painful subject for you based on you know, based on your history, your earlier history, your history together and its just, it's one that's so difficult to talk about isn't it?<br>Wife: We don't get beyond it.<br>Therapist: So when he says, I've been cutting back I really have, I haven't been drinking every day and when I have been I've been drinking less, because of the history together its really hard for you to trust that, it sounds like. " |

2) Therapist's Level of Validation of Husband

None>>Pays attention>>Accurately paraphrases/Summarizes>>Adds meaning to summary>>Makes understandable>>Makes understandable in greater depth

| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| [gives no verbal indication of listening] | "MmHmm"<br><br>[repeats exactly what was said] | "Nothing from [wife's] end is being done" | "So, what I'm hearing is that you're really intending to be drinking less and it, and it sounds like in this last week you, that hasn't been the case but –"<br><br>"All right, I see. So it wasn't you avoiding her response, so much as you were avoiding, just dealing with this whole bad thing that has, uh, resurfaced here." | "So, so in that instance, you were doing an, a way of showing that you love her and care and you didn't get the reaction that you expected at all."<br><br>"I don't know if this is a good investment. I mean, that, that's how, that's what your experience of the cautiousness is" | "So you figured when you saw it was nine-thirty is the, that's what I was wondering. You didn't necessarily run to a phone to call her because you figured she would be mad, so you're anticipating that she'll be mad." | "Therapist: And then that avoiding, conflict and avoiding, um, your feelings and anger and stuff like that, for you probably stems from, you know, your own way of growing up…<br>Husband: Um hmm.<br>Therapist: How difficult it was to, um, you know, to just, conflict was just not something that you handled."<br>"Therapist: And with that, though, I think what I'm hearing that with that giving up that struggle to try to change it, you [husband] may have also emotionally withdrawn.<br><br>Husband: Well I think they're very much tied together.<br><br>Therapist: I'm just trying to restate what I'm hearing, and that what you're concerned about is that you may adversely affect your friendship, which is your best friend, and that's what you really want to work on." |

3) Degree to which therapist presents joint formulation

None>>Refers to partner when summarizing>> describes as joint>>partially/vaguely describes pattern/differences>>describes in greater depth +emotional impact

| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| [talks to each partner separately about their positions without tying them together] | "Ok, so then you're, I think, you're painting a picture that goes something like this, your mind naturally has this creative process going on and many times you used to share those thoughts with your wife, but over time, as she became more skeptical that it's just a bunch of bullshit, you began to keep it to yourself, and so now many times, you're suggesting, when you're engaged in that sort of process she misreads it as some sort of sulking on your part when really what's going on is sort of your creative juices flowing. " | "So this is a recurrent thing that seems to be a real fundamental issue for the two of you."<br><br>"And that's why this was such an explosive thing between the two of you. This was a major…" | "I think the issue is closeness, you know, the issue is closeness and it's a, ah, I'm thinking about the idea that it takes two people to be close, but it only takes one not to be close."<br><br>"So it seems to really address, kind of a lot of your issues. The trust thing that comes up a lot, that gets kind of activated for you when [husband] says I'm going to be home by 3 and then he doesn't come home, then not only are you worried but it activated that other thing, well see I can't believe what he says. But you also said, boy I didn't even know that calling at 3 was an appropriate thing to do, and so." | "Well, you know, I cannot help it but to think again about what the different contrast is here between the two of you. You're a survivor, you're a doer. And you're more of a dreamer, a dreamer, an artist. You know, it's such a contrast in orientation to issues and problems" | "Well, for, to me, it sounds more and more like it's, it's something about falling back into, um, accusation, when there's strain. For, for both of you. Well actually that may be true, um, well it is true for both of you but perhaps the accusation is more telegraphic than you thought, you know, because you stay away, she knows that you're staying away you because you are avoiding conflict, uh, but, it has the same impact because it's received as if he is accusing you, right?" | "You know it seems significant to me that both of you tonight have said something along the lines of the stuff that sometimes happens between us, is, is either the last thing I want to happen or I what I wanted to leave behind me in my childhood and um, I wonder if, if that makes it really hard for each of you in your own way which is a different way from one another, but if that makes it hard to maybe control the emotions around things that feel like a repeat of childhood because both of you, as you were saying, you know, you both brought yourselves out of those environments and were really successful and to now feel like somehow that past is haunting you in your relationship and in your family with [husband] I would think would be terrifying."<br><br>"So it's very hard for either of you to be vulnerable with each other, it's hard and it sounds like it's hard for you to say, "Gee, I'm worried about the money," or what have you, and it's hard without, you're feeling like she's going to react. And then, it's hard for her to say I want the little romantic things without her fearing that you're going to react. So each of you are, it sounds like both of you are very frightened of being vulnerable, and saying what you need to, or opening yourselves up, because you're afraid the other one is going to stomp on you" |

4) Degree to which therapist prompts wife's expression of current experience of vulnerable emotions
Moves away/dismisses>>None>>Asks open-ended(vague>direct)>>Comments on current>>Comments/suggests vulnerable>>Repeats or deepens vulnerable

| -1 | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| "Wife: that's why I'm angry now and I don't really believe it. Therapist: So, all we can do when we're trying to come up with a solution to a problem today is work on that." | [does not prompt emotional expression in any way, but does not directly dismiss or move away from it] | "But I, you know, your experience of it is what, is what, you know, I'm trying to, I'm trying to hear." | "Can you say more about what you're needing, or what you're feeling?"<br><br>"Now from your end, [wife], you're feeling, I mean, you have an expression on your face." | "So the idea that he's come up with some very good insights but hasn't done anything to take advantage of them really irks you." | "Wife: …I totally impinge, I arrange my life around everybody else and yet you always want to know what I'm doing, where I'm going, and how I'm doing it. And I just don't think it's any of your business what goes on between 9 and 6 because I've accommodated everyone. And I'm left alone in that crazy place. And as long as I'm going in there and I'm going in there every week, I should be able to have my walls. Therapist: So it sounds like you're hurting about this too. You're angry but you're also hurting about it too." | "Wife: you love to use those words that just hurt. Therapist: Okay what, what are those words he uses to hurt you? Wife: Abusive, abusive, he likes to use words like abusive, out of control. Therapist: mhm. Wife: He used to always say you know, we should just get a divorce. Therapist: So [wife] what, can you tell me what hurts about the words abusive, Wife: Abusive, I know what abuse is. I've been there. Therapist: Can you talk a little bit more about that?" |

5) Degree to which therapist prompts husband's expression of current experience of vulnerable emotions
Moves away/dismisses>>None>>Asks open-ended(vague>direct)>>Comments on current>>Comments/suggests vulnerable>>Repeats or deepens vulnerable

| -1 | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| [See example for wife, above] | [does not prompt emotional expression in any way, but does not directly dismiss or move away from it] | "The message is?"<br><br>"And where are you at here?" | "Now, ok, what are you reacting to? She said she took the advice…" | "So, I'm detecting this real annoyance in here. Are you guys annoyed with each other again now?"<br><br>"[Husband] does it make you, it seems like you take some offense " | "Husband: (Shakes head) That I hope you wrap this up.<br>Wife: Wrap this up quick because…<br>Husband: Because I don't want a messed up weekend.<br><br>Therapist: You mean you're scared?" | "Therapist: So, it's, it's, it's almost, the word that's popping in my mind is like, fragile, it's a fragile time.<br>Husband: Very fragile, very fragile.<br>Therapist: It's a fragile job. And so it sounds like you're kind of protecting yourself because when you have expressed that, [wife]'s fear comes up, because of your own fragility around this…<br>Husband: Precisely<br>Therapist: And then your fear sometimes bubbles up, and then you're needing to protect yourself because [wife]'s afraid, but you're also afraid." |

6) Degree to which therapist prompts wife's expression of vulnerable emotions in a past incident
Moves away/dismisses>>None>>Asks open-ended (vague>direct)>>>>Comments on emotion>>Comments/suggests vulnerable>>Repeats or deepens vulnerable

| -1 | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| "Wife: I don't know but it made me feel bad<br><br>Therapist: So this was when? This was a week ago?" | [does not prompt emotional expression in any way, but does not directly dismiss or move away from it] | "Wife: Well I've gone along with this different reality for a long time and I think I've given him the benefit, you know, well, Things are slow, I understand, you know, other people are having trouble, too, yeah, I understand, you know, yeah I understand. But all of a sudden, Hey wait a second. This isn't just, you know, that, it's, look what's happened because of it."<br><br>Therapist: So, that's been the cost. Because there were times the reality for you felt very different" | "So then you came into the room, and why don't you say a little more about how you were feeling." | "Therapist: Now what's it like, now let's check something out. What's it like when [husband] puts on the break. Is your reaction frustration, or relief?" | "Therapist: Let me, let me, I mean I think it's, it's, great that you guys can kind of laugh at this and step back away from it. What I wanna ask you, [wife] can I ask you [wife] is what was behind your snippy snappy remark?<br>Wife: Um, I felt threatened, or I felt judged, and end up I guess what was behind it for me was feeling guilty…"<br>"Therapy: Were you afraid that, okay, so let me paint the picture. So you're having a nice weekend and maybe he kinda got to the sexual part faster than you were ready? …And you were afraid, so he said he got there before you<br>Wife: I felt like we shouldn't have, yeah,<br>Therapy: Okay. so both, but again, I guess, both of you were enjoying each other's company, he just got there before you, and then you were afraid that that would mean he would revert back or… " | "Wife: Everybody got hurt, he was hurt because he was exposed, um, without his timing, without his, you know he was, it just went.<br>Therapist: It blew everything up. Yeah everybody got hurt I guess.<br>Wife: But so for me to still hear the kids say 'well, it was because of [wife]'s phone call, is a real misnomer of the whole event. You know it's really not the way to portray that whole event at all. You know, there was nobody left standing, you know? It was an atomic bomb, this wasn't a friendly fire or anything, this was an atomic bomb. Everybody was scarred in that phone call.<br>Therapist: And it was very painful for the two of you then because it caused a big fall out between the two of you or an argument at that time" |

7) Degree to which therapist prompts husband's expression of vulnerable emotions in a past incident
Moves away/dismisses>>None>>Asks open-ended (vague>direct)>>Comments on emotion>>Comments/suggests vulnerable>>Repeats or deepens vulnerable

| -1 | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| [see example for wife, above] | [does not prompt emotional expression in any way, but does not directly dismiss or move away from it] | "Now, [husband], from your experience, how, what are you aware of, of when you wanted something, you felt like you consulted [wife] and felt like you got a heads-up, or you've experienced her, you know, No, that's not such a good idea, and feeling like, well, just, you know, I should do it anyway, give me, what's been your experience?" | "And how did that talk go? Were you able to talk it through and feel, did both of you come away feeling like something got resolved? or how … did you both end up feeling at the end?" [would be coded for both wife and husband] | "Husband: I was no good in her eyes, everything I'd done, I'd done intentionally to hurt her, and I did, nothing I could was right, so I felt, started feeling crappy about me, and then crappy about our relationship. And who needs to take this shit everyday? Therapist: So when you feel crappy about you, and crappy about your relationship. What, where did that leave you?" | "And the impact of that on you used to be that you'd feel frustrated, hurt, angry, lonely, and then try to change it." | "Therapist: But the unfortunate truth is, how you feel when you're there is somewhat powerless… Husband: Um hm, I feel I'm blocked… Therapist: To an effect, it's sad. Yeah…" |

8) Asks for clarification

None>>Clarifies small details>>Clarifies what happens>>Clarifies meaning/intent>>Clarifies emotional impact

| 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| [does not ask questions] | "That's from the 9 o'clock call?"<br>"Now when was the show?" | "Yeah. So then, what happened? "<br>"Well, let's, did you argue about that at the time?" | "Because then it feels like you just, now, is it a feeling of, "I just don't know him," versus, "I don't know if I could ever trust him?""<br>"And maybe he kinda got to the sexual part faster than you were ready?" | "And are you afraid [wife] is going to do something?"<br>"Amazed in a, uh, taking her back, or like you're, you're confused with yourself, or –" |

For the following, check off whether or not these behaviors occurred during the five-minute segment.

1) Direct change strategy (directive training or instruction)
   a. *planning pleasant activities* (e.g., "Now, um, this is where in relationships, this is where doing some actions can be really important, especially during difficult times, um, you know, spending time together, sitting close together, for example, can be something that one of you, or both of you, can be very fulfilling in that it means something to you. It can be a real reassuring, strengthening type of activity, uh, watching TV together for some couples.")
   b. *problem-solving training* (e.g., "Ok, now what I've just been coaching you to do is a way of solving a problem, by the way. Not getting your licks in at each other which you both tried to do, but staying focused on here's the problem.")
   c. *direct suggestions of what the couple should do* (e.g., "You may, each of you may need to, literally, kick yourselves in the butt to make yourselves share it. And share without accusing the other person.")
2) Tolerance building (asks client to "fake" their behavior)
   a. *in session* (e.g., " I want to do something here, I want you to fake him triggering your buttons.")
   b. *as a homework assignment* (e.g., "If you can be calm, cool and collected inside while on the outside, you're quote,unquote, letting him have it, you're in a good position to appreciate the impact you have on him. And you

won't know whether it's the real deal or not until she tells you. Do you understand the assignment? Will you do the assignment?")

3) Interrupts negative escalation (e.g., "Now, now hold on a second.")
    a. *Successfully* (i.e., therapist is able to redirect the conversation)
    b. *Unsuccessfully* (i.e., clients continue to talk over the therapist)
4) Asks client for reaction to partner's position
    a. *In an open-ended way* (e.g., "But you know, you, you're listening really attentively, I am kind of curious what your thoughts are, [Wife], about what he's saying?)
    b. *In a leading way* (e.g., "Have you, were you aware that what [Husband] is actually trying to do is to get connected again and to try and reach out and be present?")
5) Asks client to summarize partner's position
        i. (e.g., Therapist: Now how do you if [husband] if you are going to summarize, or , summarize I guess, what you understood her issues to be, just when she was sort of saying how she was feeling and so on, how would you do that, how would you summarize it. How are you understanding what she's saying?)
6) Misinterprets client
    a. (e.g., Therapist: Now, so you're asking the questions, then you come to your own decision about, like in this last time, I'm assuming, "let's not do it".
    Husband: No.
    Therapist: Is that correct?
    Husband: No, that's not correct.)
7) Backs off his/her previous statement
    a. (e.g., " I was being flippant in a way I shouldn't have been.")

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