

PREDICTING CHANGE IN MARITAL SATISFACTION THROUGHOUT EMOTIONALLY FOCUSED COUPLE THERAPY

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Emotionally focused couple therapy (EFT) is an empirically validated approach to couple therapy that uses attachment theory to understand the needs and emotions of romantic partners. EFT is recognized as one of the most effective approaches to couple therapy, but to guide therapists in their use of EFT, a theoretically based model to predict change is needed. This study tested such a model by recruiting 32 couples, and 14 therapists who provided approximately 21 sessions of EFT. Couples completed self-report measures of marital satisfaction, attachment security, relationship trust, and emotional control at pre- and posttherapy and after each therapy session. Results of hierarchical linear modeling suggested that individuals higher on self-report attachment anxiety and higher levels of emotional control had greater change in marital satisfaction across EFT sessions. Assessing attachment security at the start of therapy will inform therapists of the emotion regulating strategies used by couples and may help couples achieve positive outcomes from EFT.

Couple therapy continues to gain popularity, with growing evidence demonstrating its efficacy and utility in treating relationship distress (Snyder, Castellani, & Whisman, 2006). Although research continues to demonstrate that couple therapy is effective in alleviating relationship distress, researchers have reported that approximately 50% of couples do not reach recovery at termination of treatment (Jacobson & Addis 1993; Snyder et al., 2006). This low percentage of couples who remain distressed after couple therapy suggests that further research is needed to understand which couples benefit the most from specific models of couple therapy.

Emotionally focused couple therapy (EFT; Johnson, 2004) is an empirically validated approach to couple therapy based in attachment theory. It has a demonstrated 70–73% recovery rate for relationship distress, with 90% significant improvement over controls (Johnson, Hunsley,

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Greenberg, & Schindler, 1999). An overall large weighted mean effect size of 1.31 has been found. However, there is a paucity of research that has examined predictors of success in EFT. To date, there has only been one study conducted on predictors of outcome in EFT (Johnson & Talitman, 1997). Understanding predictors of change, prognostic indicators specific to EFT, enables modifications to the treatment to be more effective for the specific couple. To guide therapists in their use of evidence-based approaches to couple interventions, a theoretically based model to predict change is needed. The purpose of this study was to create such a model for EFT and examine attachment security, a theoretically relevant characteristic, and its association with changes in marital satisfaction throughout EFT. Specifically, this study proposes attachment and two related constructs of attachment, affect regulation and relationship trust, as key characteristics related to change in EFT.

An Attachment Perspective in EFT

Attachment theory emphasizes the propensity for human beings to make and maintain powerful affectional bonds with significant others (Bowlby, 1988). Using attachment theory, EFT views partners as having an innate need for emotional contact and security, which is viewed as healthy and adaptive (Johnson, 2004). Relationship satisfaction is then based on the degree of closeness and security between partners and the level of accessibility and responsiveness to one another.

Attachment theory posits that all individuals seek and maintain attachment bonds with close significant others and that these bonds influence how one views the self and other in close relationships. This innate attachment system organizes partners' emotional and behavioral expressions to gain closeness to an attachment figure in times of distress (Bowlby, 1969). The emotional accessibility and responsiveness of the attachment figure helps regulate emotional distress and restores a felt sense of security. In secure couples, reciprocal support and care regulate emotional distress during moments of need. Attachment security is characterized by low attachment anxiety (a positive view of self) and low attachment avoidance (a positive view of other; Bartholomew & Horowitz, 1991). Securely attached couples are more likely to have higher levels of trust, commitment, and marital satisfaction (Collins & Read, 1990; Feeney, 1999; Simpson, 1990). However, when responsive caregiving is not consistently available, insecure attachment develops (i.e., high levels of attachment anxiety and attachment avoidance), and partners either hyperactivate or deactivate their attachment needs as a way to self-soothe. Individuals high on attachment anxiety tend to rely on hyperactivating strategies, where energetic attempts are made to attain greater proximity, support, and love combined with a lack of confidence that these will be provided (Mikulincer & Shaver, 2007). Conversely, individuals high on attachment avoidance tend to deactivate their attachment needs by inhibiting proximity seeking and trying to handle stress alone (Mikulincer & Shaver, 2007). Previous research has linked insecure attachment to relationship distress (Feeney & Noller, 1990; Mondor, McDuff, Lussier, & Wright, 2011). The EFT model assumes that the negative emotions and negative interaction cycle of distressed couples represent a struggle for attachment security (Johnson, 2004). The negative cycle is an attempt to cope with separation distress and to change the partners' responses in the direction of increased accessibility and responsiveness. Attachment theory posits that accessibility and responsiveness are the building blocks of secure attachment bonds between partners (Bowlby, 1969). Thus, EFT aims to create more secure bonding events through the exploration and expression of emotional needs and wants associated with the loss of connection, and to create increased accessibility and responsiveness between partners.

Attachment theory emphasizes the focus in EFT on regulation, processing, and integration of key emotional responses within the couple relationship (Johnson, 2004). Attachment theory places an emphasis on emotion as a prime motivator for and organizer of attachment responses. Emotional responses give meaning to relationship cues and are viewed as the primary communication system and source of adaptive behaviors (Johnson, 2004). Emotions provide communication to the self and other of the individual's current motivational state (Bowlby, 1973). According to attachment theory, attention must be given to the emotions that partners bring to therapy, especially anger, sadness and longing, shame, and fear (Johnson, 2003). Individuals may attempt to regulate their affect through emotional control by suppressing the expression of negative emotions to their partners (Feeney, 1995). If partners have higher control of their emotions at the start of

therapy—that is, over-regulation as opposed to under-regulation of affect—it may be more difficult for them to engage in and benefit from EFT. Furthermore, previous research has linked higher levels of emotional control to lower marital satisfaction in couples (Feeney, 1999; Feeney, Noller, & Roberts, 1998). Experiencing and expressing emotion takes a primary role in modifying romantic relationships. EFT interventions help partners to focus on, expand, reformulate, and restructure key experiences. Interactional positions begin to modify as a result of expressing new and expanded emotional experiences, which then allows partners to develop healthy and flexible interactional patterns and increased security of the attachment bond.

Relationship trust is also closely related to attachment theory and EFT. When an attachment figure is available and responsive during times of need, trust is developed. Trusting one's partner also enables the expression of affect, and asking for attachment needs to be met. The interventions in EFT require individuals to trust each other and have some faith that their partner still cares for them when they are beginning to open up and share their more primary emotions and attachment longings. Individuals are asked to take risks of making oneself emotionally vulnerable to their partner. If partners do not feel that their loved one cares for them, or they do not trust their partner, taking risks in therapy will be especially difficult. According to Holmes and Rempel (1989), individuals in relationships characterized by greater levels of trust will have more positive, well-integrated, and well-balanced internal working models that help them resolve relationship difficulties. Couples with higher levels of trust do in fact have higher levels of marital satisfaction and are more likely to be in securely attached relationships (Larzelere & Huston, 1980; Rempel, Holmes, & Zanna, 1985). Conversely, couples with lower levels of trust have more rigid and defensive patterns during marital distress (Rempel et al., 1985). Thus, the levels of relationship trust may be an important characteristic of partners in determining their ability to make positive changes in EFT.

Emotionally Focused Couple Therapy: Process of Change

According to EFT (Johnson, 2004), relationship distress occurs when partners fail to respond to individual's attachment cues, resulting in an increase in negative affect and a weakening of the security of attachment bonds. Relationship distress is viewed as a result of ongoing negative interaction patterns where individuals feel as though their partner has failed to respond to their cries for support and connection. The negative interaction cycle tends to be narrow and constricting and is circular in nature: One partner says "I blame because you withdraw" and the other partner responds, "I withdraw because you blame." This common negative cycle has been called the demand/withdraw pattern of communication in relationships and has been linked to marital dissatisfaction (Caughlin, 2002; Noller, Feeney, Bonnell, & Callan, 1994). As a result of the negative cycle, partners' attachment needs are not met and relationship distress is maintained with feelings of insecurity and rejection.

Predictors of Success in EFT

Although EFT is one of the most researched approaches to couple therapy, a paucity of research exists on looking at predictors of outcome in EFT and the variables related to change in marital satisfaction. In fact, predictors of marital satisfaction outcome have only been examined in one EFT study. Johnson and Talitman (1997) looked at variables that are theoretically related to the model, in addition to demographic variables. The quality of the romantic attachment relationship, emotional self-disclosure, and relationship trust were examined at termination and 3-month follow-up. The only demographic variable related to outcome was male partner age. Older males exhibited more treatment gains at posttreatment and follow-up. Of the variables examined, the level of faith, a dimension within the trust measure that examines individuals' confidence about the continued strength and permanence of their partner and relationship, was the only variable that significantly predicted outcome. Specifically, female partners with higher initial levels of faith predicted couples' higher scores on marital satisfaction at follow-up. With more faith in their partner, wives may conclude that their partner is capable of caring and loving, which may foster a willingness to respond to the emotional engagement tasks that are key to EFT. However, measures of the quality of the romantic attachment relationship (West, Sheldon, & Reiffer, 1987) and emotional self-disclosure (Snell, Miller, & Belk, 1988) did not significantly predict marital satisfaction at termination. Looking at the subscales for attachment, males with higher levels of proximity seeking

at intake, a dimension related to secure attachment, were more likely to make the most gains at termination. Although attachment and self-disclosure are key theoretical concepts in EFT, Johnson and Talitman (1997) questioned whether the self-report questionnaires used in their study captured the theoretical underpinnings of EFT. For example, the emotional self-disclosure measure may not have examined the affective experience and ability to be emotionally expressive that is essential to EFT. Furthermore, it may not have captured the negative affect exhibited between partners at the start of therapy. As for demographic (i.e., educational, age, income, and years married) or intrapersonal variables (i.e., religiosity, interpersonal cognitive complexity), Denton et al. (2000) found that they had no significant moderating effects of marital satisfaction, suggesting that these characteristics of partners may not be crucial to outcome.

In the general couple therapy literature, research in predictors of success has failed to clearly delineate who is able to successfully change following a specific type of treatment (Atkins et al., 2005; Snyder et al., 2006). Atkins et al. (2005) found predictors of initial distress over and above predictors of session-by-session change, leaving an unclear picture of what predicted change in behavioral marital therapy (BMT; Jacobson, Follette, & Pagel, 1986) or integrative behavioral couple therapy (IBCT; Christensen et al., 2004). These findings may be a result of examining theoretically unrelated variables to the BMT and IBCT model. Research on predictors of success is most relevant when it focuses on theory-specific variables. EFT has a clear and empirically validated model of romantic relationships, grounded in attachment theory.

The Present Study

As suggested by Atkins et al. (2005) and guided by the theory of EFT, the present study chose individual characteristics of distressed couples at intake that are theoretically relevant to couple change in marital satisfaction throughout EFT. Based on the theoretical underpinnings of EFT, partner attachment security may be important in the prediction of change in EFT. EFT places an emphasis on the intimate attachment bond between partners and the way partners explore and express their needs for closeness, dependency, and reassurance. Individual's level of attachment security may play a role in their ability to engage in therapy. Specifically, individual differences in romantic attachment security may help to explain why some individuals experience greater positive changes in marital satisfaction. In addition to attachment security, two key constructs of attachment theory that are also related to the EFT model include emotional control and relationship trust. Several hypotheses were made for the present study. It was first predicted that there would be an overall positive change/growth in marital satisfaction over the course of therapy. For predictors of change using individual characteristics at intake, it was predicted that lower pretherapy levels of self-report attachment anxiety and attachment avoidance would be associated with positive changes in marital satisfaction over the course of therapy. It was also predicted that lower pretherapy levels of self-report emotional control and higher pretherapy levels of self-report relationship trust would be associated with greater positive changes in marital satisfaction across therapy.

METHOD

Participants

To participate in the present study, couples had to be over the age of 25, in an exclusive, long-term, heterosexual relationship, and be living together for at least 1 year. Couples were also required to be mildly to moderately distressed (couple mean scores in the range of 80–95 as measured by the Dyadic Adjustment Scale (DAS); Spanier, 1976). Partners also had to be insecurely attached as part of a larger study, as measured by the Experiences in Close Relationships—Relationship Specific Scale (ECR-RS; Brennan, Clark, & Shaver, 1998; Mikulincer & Shaver, 2007). At least one partner needed to score over the 95% confidence interval on either attachment anxiety (score ≥ 3.80) or attachment avoidance (score ≥ 2.20), as presented by Shaver, Schachner, and Mikulincer (2005), indicating significantly higher levels of attachment insecurity than the general population and an insecurely attached relationship. See Figure 1 for couple screening criteria and eligibility flowchart.

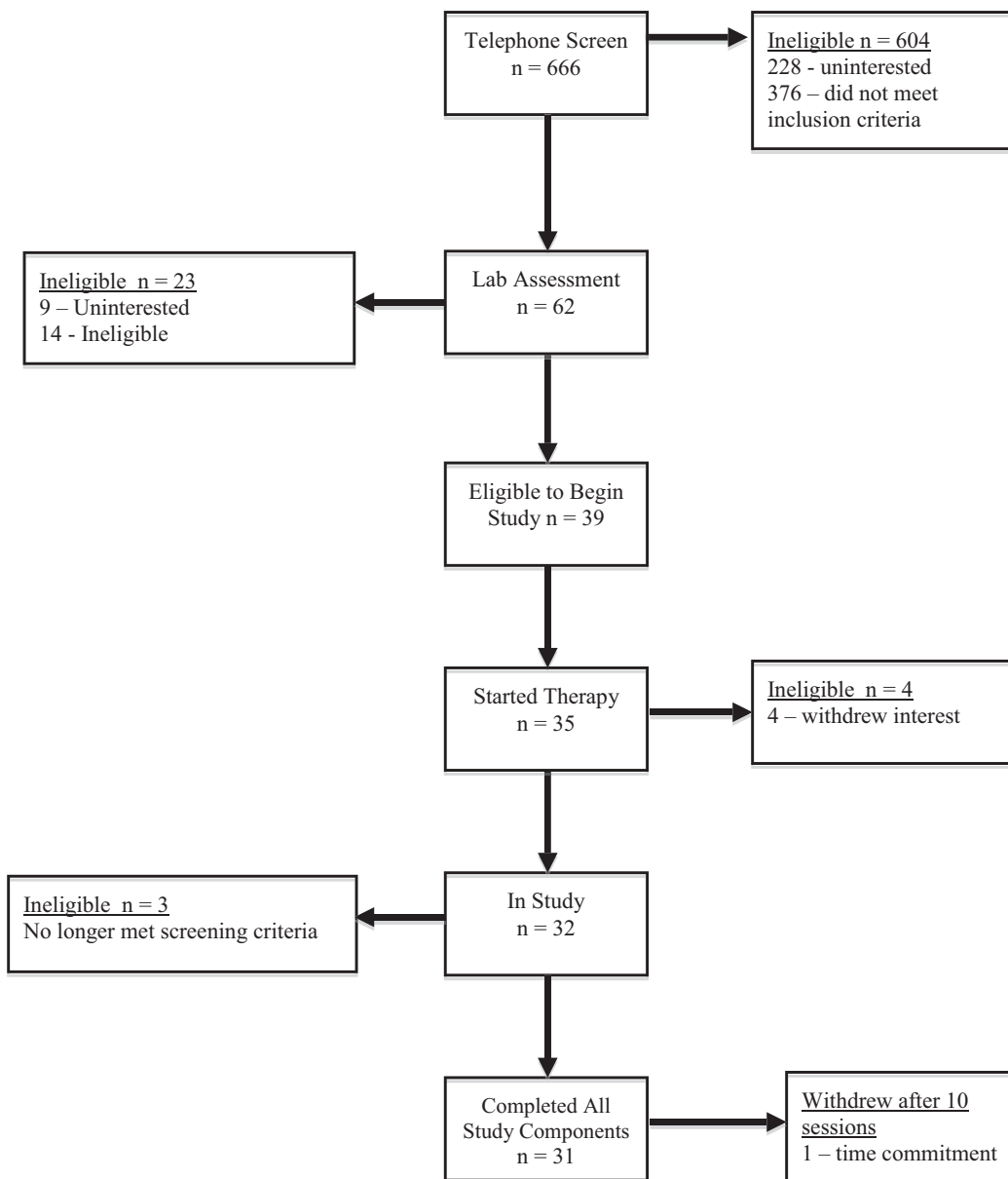


Figure 1. Couple screening and eligibility flowchart.

Couples ($N = 32$) in the present study were moderately distressed, with a mean couple DAS score of 87.66 (range = 73–106, $SD = 8.17$). The majority of partners were Caucasian (95.2%), with three individuals of minority origins. Partner ages ranged from 28 to 64 years ($M = 44.62$, $SD = 7.46$). On average, the length of relationship was 15.9 years ($SD = 8.5$), and couples had two children. The majority of individuals (73.4%) had a university degree, and couples had a mean gross annual income of \$75,886 ($SD = 60,103$).

Measures

Demographic questionnaire. Demographic information collected included age, ethnicity, length of the relationship, number of children, education, and income.

The Dyadic Adjustment Scale. The DAS (Spanier, 1976) is a 32-item self-report questionnaire designed to assess romantic relationship adjustment between married or cohabiting couples. On a 5- or 6-point scale, the DAS measures the rate of occurrence of relationship disagreements and positive relationship exchanges. Theoretical scores range from 0 to 151. Higher scores indicate greater relationship satisfaction. Couples in the present study were required to score within 80–95 on the DAS, a range that is representative of mildly to moderately distressed couples similar to previous studies of EFT (Johnson & Talitman, 1997; Makinen & Johnson, 2006). This range was determined based on previous research by Spanier (1976), who identified scores lower than 80 are indicative of severe distress, and Jacobson, Follette, and Revenstorf (1984), who used a clinical cut-off score for married couples on the DAS at 97. The DAS demonstrated a highly reliable measure, with Cronbach's alpha coefficient of .96 for the total scale (Spanier, 1976). In the present study, Cronbach's alpha coefficient was also .96 for the total scale.

Experiences in Close Relationships—Relationship Specific. The ECR-RS, a modified version of the ECR (Brennan et al., 1998), is 36-item measure designed to assess individual differences in attachment anxiety (i.e., the extent to which the individual experiences worry or abandonment in their relationship) and attachment avoidance (i.e., the extent to which the individual moves away from being close with other individuals). Attachment security is defined by low levels of attachment anxiety and attachment avoidance. The modified version has been altered with permission to indicate partners to respond to the items with their romantic relationship in mind (P. Shaver, Personal Communication, December 6, 2006; Mikulincer & Shaver, 2007). This questionnaire uses a 7-point Likert scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). The two subscales consist of 18 items and the mean is used, with scores ranging from 1 to 7. Higher scores indicate greater attachment-related avoidance and anxiety. For the ECR, Cronbach's alphas of .94 for the avoidant scale and .91 for the anxiety scale have been reported (Brennan et al., 1998). The ECR has also been found to have high stability (Brennan et al., 1998) and high convergent validity with other measures of attachment security (Griffin & Bartholomew, 1994). For the ECR-RS for the current study sample, Cronbach's alpha was .86 for both scales.

The Courtauld Emotional Control Scale-Revised. The Courtauld Emotional Control Scale-Revised (CECS-R; Feeney, 1995) is a revised version of the CECS (Watson & Greer, 1983) to examine the control of emotional expression within the current attachment relationship with the partner (Feeney, 1995). The CECS-R consists of 21 items assessing the individual's tendency to suppress the experience of anger, sadness, and anxiety in their current relationship, using a 6-point scale ranging from 1 (*hardly ever*) to 6 (*almost always*) and a theoretical range of total scores from 21 to 126. High scores indicate greater emotional control. Watson and Greer (1983) found good test-retest reliability with a correlation of .95 for the total scale over a 3- to 4-week period. In the present study, Cronbach's alpha coefficient was .96 for the total scale.

The Relationship Trust Scale. The Relationship Trust Scale (RTS; Holmes, Boon, & Adams, 1990) is a 30-item self-report questionnaire that measures interpersonal trust between cohabitating and married couples. The RTS uses a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) with a theoretical range of scores from 30 to 210. High scores indicate a stronger level of trust between partners. Reliability has been established, with a Cronbach's alpha coefficient of .89 for the total scale (Holmes et al., 1990), demonstrating good internal consistency. In the present study, Cronbach's alpha coefficient was .87 for the total scale. Test-retest reliability over a 3-year period was approximately .72 (Holmes et al., 1990). The RTS demonstrated good construct validity and discriminate validity (Holmes et al., 1990).

The Couple Therapy Alliance Scale. The Couple Therapy Alliance Scale (CTAS; Pinsof & Catherall, 1986) is a 28-item measure assessing the therapeutic alliance from the point of view of each partner. The therapeutic alliance examines the ability of the therapist and partners to mutually collaborate and contribute to therapy. The CTAS is used to ensure that therapist and partners have developed a strong working alliance. Using a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*completely agree*), a mean of the total CTAS scores is used with a range of scores from 1 to 7. High scores indicate a greater quality alliance between the couple and the therapist. Test-retest reliability over a 1-week period (between sessions) has been found at .79 (Pinsof & Catherall, 1986). Excellent internal consistency has been reported, with Cronbach's alpha coefficient

cient at .93 (Heatherington & Friedlander, 1990). In the present study, Cronbach's alpha coefficient was .92.

Procedure

Couples were recruited through media advertisements, posters at local community agencies, and referrals from a local institute. All interested couples for the larger study were screened using a two-step procedure: (a) a 20-min telephone screen to assess demographic and relationship eligibility and (b) a research session that assessed marital satisfaction and attachment insecurity. During this research session, all study procedures were reviewed and informed consent was received. Partners completed self-report measures and the 15-min conflict interaction task. The research session took 3 hr, and couples were compensated \$20.00 per hour of participation in the research sessions. Eligible couples attended EFT sessions at a community institute. At the end of each therapy session, partners completed the DAS (and the CTAS only after the third session to ensure a therapeutic alliance). Couples completed the same research session following the termination of therapy. Three graduate students conducted all research sessions. Ineligible couples were provided referrals to the community. The research ethics board of the institution involved approved all aspects of the study.

Therapeutic intervention. Couples were randomly assigned to 1 of 14 EFT registered psychologists and/or social workers at a local psychological clinic. Therapists had a minimum of 2 years experience in EFT and offered their services on a voluntary basis. All therapy sessions were audiotaped. Couples participated in a range of 13 to 35 sessions ($M = 21$) of EFT. The number of sessions provided varied in this study as a result of some couples dealing with more difficult and long-standing issues (e.g., infidelity) compared to previous EFT outcome studies that have provided a specific number of sessions.

Treatment adherence. To ensure treatment adherence by each therapist, an implementation checklist was used (Johnson & Greenberg, 1985; Johnson & Talitman, 1997). This checklist consists of eight EFT interventions and eight non-EFT interventions. Two independent graduate students listened to a 10-min segment and 30 min into the session and rated the interventions used. Raters received 3 hr of training in which they coded segments of previous sessions of EFT for couples and reached a Cohen's Kappa (Cohen, 1960) of .78. One third (approximately 6) of each therapist's sessions were rated for the present study. For EFT to be faithfully implemented according to its model, at least 75% of therapists' interventions must be coded as EFT interventions. Interrater reliability was calculated on 4,143 therapist statements. Cohen's Kappa coefficient was achieved at .71, indicating high reliability between coders. Of 4,143 therapist statements, 93.5% were coded as EFT interventions (range 88.4–92.8%). These results suggest that EFT was implemented faithfully to the treatment manual.

Data Analysis

Hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) was used to analyze the data. The present study employed a three-level model to assess predictors of change in marital satisfaction across therapy (see Equation 1 for base model in Appendix A). The first step in the modeling process was to develop growth curve trajectories for each individual using all data from pre- to posttherapy for the outcome variable, the DAS. This allowed for the first hypothesis to be examined. A completely unconditional base model three-level model was created without any predictors to demonstrate each individual's trajectory of change with intercept, linear slope, and error components. After reviewing individual plot trajectories, a linear model was chosen as it would best represent the data (see Equation 2 for the unconditional linear model). To test the hypotheses concerning individual characteristics as predictors of change, all self-report variables were added to the unconditional model at the individual level on both the intercept and slope (level 2; see Equation 3 for the nested conditional linear model). By examining the predictor variables' influence on the intercepts (initial level of marital satisfaction), we were able to identify whether they were significant predictors of marital distress at pretherapy. If predictor variables significantly influenced the change components (i.e., slope), it was considered a significant predictor of change in marital satisfaction. The difference in deviance statistics between the unconditional and conditional models was calculated to assess improved model fit resulting from adding a set of predictors. The difference in deviance statistics was assessed against a chi-square distribution, and a

significant chi-square indicates significantly improved model fit. Pseudo R^2 was used to compare the unconditional model to the base model (Singer & Willett, 2003). However, pseudo R^2 is inappropriate to provide a measure of proportion of variance accounted for by a particular variable when comparing models beyond the base model (Singer & Willett, 2003; Snijders & Bosker, 1999). Therefore, only improved model fit is reported when examining predictors of change (Hox, 2002). All predictor variables were centered around the mean of the couple, and level three predictors were grand mean centered (Hox, 2002). Analyses were conducted using the HLM7. Statistical significance was set at $<.05$.

Clinical significance: Reliable Change Index and effect size. The Reliable Change Index (RCI; Jacobson & Truax, 1991) was used to determine clinically significant pre- to posttherapy changes in marital satisfaction. This study used the clinical cutoff score of 97, where couples' mean DAS scores above 97 at posttreatment were considered to be in the nondistressed range (similar to Christensen et al., 2004). The categories for clinical significance are recovered (positive reliable change, scores >97), improved (positive reliable change, scores <97), no change (no reliable change), and deteriorated (negative reliable change).

RESULTS

Data cleaning and screening were conducted to ensure all assumptions for the planned analyses were met. One univariate and three multivariate outliers were found. The extreme scores were corrected to be 3.3 SD of their respective means (Tabachnick & Fidell, 2007). All scales were normally distributed, variables were homogeneous, and the variables were neither singular nor multicollinear. All 32 couples completed all pretherapy questionnaires, and at least 10 sessions of EFT. One couple did not complete the posttherapy research session. Seventy-eight percent of couples provided complete data for postsession questionnaires. Preliminary analyses were conducted to examine whether the data were missing at random with a pattern mixture model with couple dropout pattern as a predictor (Gallop & Tasca, 2009). The model indicated that the couple dropout pattern was not significantly related to outcome ($p = .22$). Preliminary analyses were also conducted to examine the number of sessions received, therapist effects, and demographic characteristics as predictors. The number of sessions received was not a significant predictor of change for couples' DAS growth curve ($p = .83$). Therapists were not significant predictors of change ($p > .05$). Demographic characteristics (i.e., age, gender, education, marital status, first language, length of relationship) were not significant predictors of the intercept ($p > .05$) or slope ($p > .05$). Thus, number of sessions, therapist effects, and demographic variables were not controlled for in

Table 1
Means and Standard Deviations of Predictor Variables for Individuals

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
Dyadic Adjustment Scale (DAS)			
Pretherapy	32	87.96	8.34
Posttherapy	32	99.67	14.93
Experiences in Close Relationships–Relationship Specific			
Attachment anxiety	64	3.91	0.98
Attachment avoidance	64	3.47	1.04
Courtauld Emotional Control Scale-Revised	64	70.28	23.22
Relationship Trust Scale	64	128.44	24.22
Couple Therapy Alliance Scale (CTAS)	64	6.06	0.64

Note. All predictor variables were measured as individuals ($N = 64$), and the DAS was measured as a couple variable ($N = 32$).

the conditional model. On average, partners had a mean score of 6.06 ($SD = 0.64$) on the therapeutic alliance scale, suggesting all couples had a positive alliance with the therapist. See Table 1 for means and standard deviations for all predictor variables.

Unconditional Linear Model Analysis – DAS Change across Therapy

The first step in the modeling process was to fit the unconditional growth model. The difference in deviance statistics was examined and suggested that the unconditional linear model represented a significantly better fit to the data than the base model, $\chi^2(10, N = 32) = 531.13, p < .001$. The results indicated that there was a large correlation between initial status and growth, $r(64) = .55, p < .001$. This large effect suggests that, like in other psychotherapy studies, it is appropriate to control for pre-DAS scores in the linear growth model.

The first hypothesis predicted that there would be a positive linear growth in DAS scores across therapy. The model estimated intercept value for all couples was 88.33 on the DAS (γ_{000}), $SE = 1.15, t(30) = 77.13, p < .001$. The linear growth in DAS from the start of treatment was estimated at .39 points per session of therapy, (γ_{100}), $SE = 0.06, t(30) = 6.37, p < .001$. Examining the Pseudo R^2 , 31.4% of variance in the base model was explained ($\sigma^2[\text{base}] - \sigma^2[\text{unconditional}] / \sigma^2[\text{base}]$, $70.98 - 48.69 / 70.98$) by within person variance in DAS scores over time, indicating a significant increase in DAS scores over the course of therapy with a large effect. A significant amount of couple, $\chi^2(28, N = 64) = 229.45, p < .001$, and individual variance, $\chi^2(29, N = 64) = 404.52, p < .001$, remained to be modeled (see Table 2).

Clinical Significance: RCI and Effect Size

Of the 31 couples who completed pre- and post-DAS, 20 (64.5%) couples showed reliable improvement or recovery. Nine (28.1%) couples experienced no change, and 2 (6.3%) couples deteriorated. The effect size using Cohen's d for repeated measures was $d = .81$. This indicates a large effective size, suggesting that on average EFT was effective in alleviating relationship distress (as reported in Burgess Moser et al., *in revision*).

Conditional Linear Model Analyses: Predictors of Change

A conditional linear model was run to examine the hypotheses that lower levels of attachment anxiety, attachment avoidance, and emotional control, and higher levels of relationship trust would be associated with greater positive linear growth in DAS scores. The results from

Table 2
Estimated Effects of Linear Models for Change/Growth in Marital Satisfaction throughout Therapy ($N = 32$ Couples)

Model	Coefficient	SE	t	df	p	Deviance ^a
Unconditional model						
Intercept γ_{000}	88.33	1.15	77.13	30	<.001	10523.46
Session slope γ_{100}	0.39	0.06	6.38	30	<.001	
Pre-DAS satisfaction γ_{101}	-0.012	0.0072	-1.66	30	.107	
Linear model 1						
Attachment anxiety γ_{120}	0.097	0.032	3.01	1362	.003	10495.05
Attachment avoidance γ_{130}	0.015	0.044	0.34	1361	.733	
Emotional control γ_{140}	0.0038	0.0014	2.77	1360	.006	
Relationship trust γ_{150}	0.003	0.0018	1.66	1359	.098	

Note. ^aNumber of estimated parameters: unconditional = 14; linear model 1 = 22. Pre-DAS satisfaction measured at the first research session.

this model indicated that attachment anxiety predicted the intercept, $\gamma_{020} = -1.66$, $SE = 0.71$, $t(27) = -2.35$, $p = .027$. Couples with partners with higher levels of attachment anxiety appear to start therapy with lower pre-DAS scores (see Table 2). Attachment avoidance, emotional control, and relationship trust did not predict the intercept. Attachment anxiety significantly predicted the slope, $\gamma_{120} = 0.11$, $SE = 0.026$, $t(1359) = 4.13$, $p < .001$. Contrary to the hypothesis, couples with partners who had higher levels of attachment anxiety at the start of therapy had greater positive change in their DAS scores. Partners with greater emotional control at the start of therapy had greater change in DAS scores across EFT. Attachment avoidance, $p = .43$, and relationship trust, $p = .10$, were not significant predictors of the slope. Adding these predictors significantly improved model fit, $\chi^2(6, N = 32) = 28.4$, $p < .001$. Significant predictors were removed one at a time to assess which improved model fit. When attachment anxiety was removed from the model, the model fit was significantly worse, $\chi^2(2, N = 32) = 12.91$, $p < .005$. Removing emotional control from the model also indicated that the model fit was significantly worse, $\chi^2(2, N = 32) = 8.26$, $p < .01$. This suggests that attachment anxiety and emotional control each uniquely improved model fit.

DISCUSSION

Results of this study indicated that couples' marital satisfaction continued to increase over the course of EFT. The majority of couples made clinically significant improvements in marital satisfaction from pre- to posttherapy. Although not part of the hypotheses for this study, we found that demographic characteristics were not significant predictors of change for couples. We also found that couples with higher levels of attachment anxiety at intake started EFT with greater levels of distress. Results suggested that individuals with higher levels of attachment anxiety and emotional control at the start of therapy were more likely to experience greater changes in marital satisfaction over the course of EFT. However, attachment avoidance and relationship trust did not predict change in marital satisfaction over the course of therapy.

The present study provides further empirical evidence for EFT creating positive changes in marital satisfaction. Couples' marital satisfaction continued to increase .39 points per weekly session over the course of EFT (see also Burgess Moser et al., *in revision*). This rate of change is comparable to the rate of change reported for IBCT and BMT (.37 per weekly session; Christensen et al., 2004). Although this study was not designed to be an outcome study, it is worth noting that 64.5% of couples showed reliable improvement or recovery at the end of treatment. This is lower than the 70–73% recovery rate reported by Johnson, Hunsley, Greenberg & Schindler (1999), which may be a result of specifically recruiting insecurely attached couples for a larger study. This study provides support that EFT works for insecurely attached and maritally distressed couples.

The findings of this study suggest that partners with higher levels of attachment anxiety were able to make the most gains throughout EFT. Although couples with higher pretherapy attachment anxiety had lower levels of satisfaction at the start of therapy, we controlled for pretherapy scores on marital satisfaction. We also specifically recruited couples who were insecurely attached (Brennan et al., 1998). This result builds on previous findings of predictors of outcome in EFT, which found that preoccupied men made the most gains in marital satisfaction at the end of therapy (Johnson & Talitman, 1997). The results of this study imply that EFT may be particularly helpful for partners who are highly anxious and preoccupied. Although contrary to the original hypothesis, this result makes sense in the context of EFT and attachment theory. Partners with high levels of attachment anxiety have pressing and urgent anxiety surrounding whether they matter, and fear abandonment and being unloved (Collins & Read, 1990; Davila & Kashy, 2009). For these individuals, their anger–protest in the distressed relationship is a result of not being able to seek comfort with their partner or have their normal needs for contact and intimacy met (Johnson, 2004). EFT is based on an understanding of attachment such that seeking proximity to one's partner is a primary compelling need that holds evolutionary survival significance for partners—the creation of a safe haven with the partner is a first priority. The focus of EFT on primary attachment emotions helps partners define their own emotional exploration and expression more positively as the assertion of attachment needs becomes a positive experience. The loss of emotional connection, conversely, is a danger cue that evokes anxiety and anger resulting in protests of emo-

tional distance, demanding a response from the other. An understanding of these attachment dynamics in the relationship informs the structuring of the change process and EFT interventions. Furthermore, Daniel (2006) suggested that therapies that emphasize and elaborate the importance of close relationships with significant others and emotions may fit particularly well with highly anxious individuals as the interventions are similar and relevant to their hyperactivating coping mechanisms. In EFT, partners are exploring, accessing, and reprocessing their emotions and attachment longings with their partners. EFT focuses on the change processes required to build safe emotional connection in every session in a way that helps soothe attachment fears for couples, regardless of initial attachment anxiety levels. It makes sense that partners with higher initial attachment anxiety would experience the greatest gains in satisfaction, as opportunities for secure emotional connection with their partner directly target the core of their relationship distress, fears of disconnection. Throughout the process, these partners no longer need to hyperactivate their attachment needs, as they begin to develop positive ways of expressing their emotions and needs, and their partner becomes more engaged. The previously withdrawn partner's new accessibility and responsiveness is contrary to the blaming partner's cognitive belief of being unlovable, which is represented by high levels of attachment anxiety (e.g., negative model of other; Mikulincer & Shaver, 2007). This positive interactional shift and expression of needs and longings may then impact how the individual views the relationship, leading to an increase in marital satisfaction. Previous research also suggested that individuals with higher levels of attachment anxiety are more likely to experience changes in security levels (Davila & Cobb, 2004). In EFT, Burgess Moser et al. (*in revision*) found that partner attachment anxiety decreased over the course of therapy and that as attachment anxiety decreased over the course of therapy marital satisfaction increased. These results suggest that partner attachment anxiety is particularly important for therapists to consider throughout EFT. Therapists may assess partners' attachment anxiety to help make a prognosis for therapeutic change and know that the interventions are particularly relevant for partners with higher attachment anxiety.

Pretherapy levels of attachment avoidance did not significantly predict change over the course of EFT. Previous research suggested that individuals higher on attachment avoidance may be more difficult to engage in therapy as a result of their deactivating coping strategies (Horowitz, Rosenberg, & Bartholomew, 1993; Meyer, Pilkonis, Proietti, Heape, & Egan, 2001). These strategies consist of active attempts to maintain cognitive, emotional, and physical distance from their partner (Collins & Read, 1990). However, recent research found that partners experienced significant decreases in attachment avoidance over the course of EFT (Burgess Moser et al., *in revision*). Taken together, these findings suggest that attachment avoidance may be changing over the course of EFT and that pretherapy levels of avoidance may not determine one's ability to engage in EFT. Therapists should ensure the withdrawn client (i.e., typically the client with higher levels of attachment avoidance) is engaged at the beginning of therapy and is open to experiencing new behaviors from their partner. The withdrawn partner's new openness may allow them to understand their partner's criticism and contempt as a bid for attention and love, and this may impact their marital satisfaction. Throughout this process, partners are learning to turn to each other and develop positive coping mechanisms. This is contrary to their habitual deactivation of the attachment system and turning away from their significant other. The nonsignificant findings in this study may have been due to the small sample size or the use of self-report measures. Self-report measures may activate some means of defense mechanisms that allow individuals high on attachment avoidance to deny their attachment fears (Bartholomew, 1990; Main, Kaplan & Cassidy, 1985). Further research is needed to examine the role of attachment avoidance and changes in marital satisfaction across EFT.

Emotional control, suggesting maladaptive over-regulation of affect, has been linked to insecure attachment and marital distress (Feeney, 1999). Interestingly, partners in this study with higher emotional control made greater changes in marital satisfaction across therapy. These results imply that the interventions in EFT are particularly relevant for individuals who over regulate their negative affect at the start of therapy. Although contrary to our initial hypothesis, this result also makes sense within an attachment framework in EFT. EFT specifically works with negative emotions and helps partners to reprocess affect in a manner that creates a positive shift in interactional positions and increases attachment security. Partners with difficulties expressing emotions

may benefit significantly from learning to explore and express their previously unacknowledged feelings and attachment needs. This expression of emotions and needs allows for the development of more adaptive affect regulation strategies rather than a reliance on deactivating strategies, and greater emotional contact and communication with their significant other (Johnson, 2004). Emotion regulation is one of the leading elements in close relationships (Johnson & Best, 2002). It shapes the way partners react, the messages partners send and how partners respond to the signals sent by their partner. Negative emotions in distressed relationships are particularly difficult to express, as partners may fear abandonment and rejection from their loved ones. The conceptualization of the blamer-withdrawer also provides support for these findings. For example, highly anxious blaming partners may present at the start of therapy with high control over their emotions (e.g., fear of abandonment, sadness and isolation) as a result of their unmet expressions for need and comfort. The withdrawn partner may be controlling their anxiety related fears of inadequacy. In the negative interaction cycle, partners do not feel safe expressing these underlying emotions. The increased emotional connection experienced between partners in EFT as they begin to unpack their emotions then impacts their marital satisfaction. We also recruited a sample of insecurely attached couples. Therefore, these insecurely attached couples with poor affect regulation strategies benefited from the interventions in EFT.

The results of this study suggest that relationship trust may not be a key factor in determining change in marital satisfaction across therapy, although it may be relevant in maintenance of positive changes in marital satisfaction following therapy, as found by Johnson and Talitman (1997). These researchers found that high levels of trust at the start of therapy predicted greater marital satisfaction at 3-month follow-up but not posttherapy scores. The variance accounted for by attachment security in the linear model in this study may account for relationship trust, as relationship trust is related to attachment (Simpson, 2007). Although researchers have argued that trust and attachment are conceptually different and have only small to moderate correlations (Collins & Read, 1990), Bowlby (1969) stated that attachment security develops when individuals receive warm, supportive, and situationally contingent care when they are distressed. Attachment security may help to build relationship trust when partners respond to their distress (Simpson, 2007). As individuals begin to develop a more secure bond with their partner in EFT, they may also experience an increase in their trust that allows them to take risks with their partner. As attachment security increases, so does relationship trust, which may result in higher marital satisfaction. Further research is needed to examine relationship trust as a long-term predictor of marital satisfaction.

Limitations and Future Directions

The present study is subject to several limitations. There were several inclusion/exclusion criteria used for this study as it was part of a larger study. The majority of couples were also Caucasian, well-educated, high earning families. Furthermore, couples with psychiatric diagnoses or childhood trauma were excluded (i.e., childhood abuse, a diagnosis of depression). Although the demographic characteristics served the purposes of this study as an examination of predictors of effectiveness, they also limit the external validity of this study. These sampling limitations prevent greater generalizability of the results. Other studies have found EFT to be effective for couples struggling with trauma, depression, and high levels of stress (Lebow, Chambers, Christensen & Johnson 2012); however, continued research should consider integrating a more diverse sample of couples (e.g., gay and lesbian couples, diverse ethnicities) to increase generalizability of key characteristics of couples who are able to make changes across EFT. Furthermore, the therapy was carried out by expert EFT therapists and may not be generalizable to therapists in the beginning stages of EFT training. The small sample size may limit the conclusions we are able to make based on limited power and too few degrees of freedom in the analysis to examine individual rate of change across therapy. A larger sample size will allow for an examination of more predictor variables with greater power and an opportunity to examine individual rates of change. Although EFT has been shown to be superior to no treatment (Johnson, Hunsley, Greenberg & Schindler 1999), this study did not compare the change experienced throughout EFT to a control group (i.e., no therapy received), limiting the causal conclusions we may make about intake characteristics and change throughout EFT.

The results of this study emphasize the importance of future research to consider partner characteristics that are theoretically derived from the therapeutic model being examined. By examining characteristics that are theoretically based, researchers may create better models of therapeutic change. Researchers should examine multiple methods of assessing attachment behaviors, including interview-based measures of romantic attachment (e.g., current relationship interview; Crowell & Owens, 1996). Although intake characteristics are important to determine prognosis of a couple at the start of therapy, individual characteristics at intake may not be relevant in predicting success if the therapy is changing these characteristics (Atkins et al., 2005). Thus, researchers should also consider how these key characteristics are changing throughout therapy (see Burgess Moser et al., *in revision*) and follow-up. This type of research would enable therapists to use interventions that are creating change in attachment security and marital satisfaction over the course of EFT.

Conclusion

This was the first study to use linear modeling to examine predictors of change across EFT using theoretically relevant intake characteristics in a sample of insecurely attached couples. Being aware of couple characteristics at the start of therapy provides a road map for where therapists may need to focus and tailor interventions for couples to help them make greater gains in EFT. This is in contrast to finding the best match between the couple and the model of therapy. Instead, therapists can use attachment theory, an empirically grounded framework for understanding important aspects of interpersonal functioning and the underpinnings of EFT, to tailor their interventions to specific couples to enhance outcomes. Key findings suggest that the interventions in EFT work particularly well for individuals with higher initial levels of attachment anxiety and emotional control. EFT may help to reorganize attachment anxiety and ambiguous affect and help couples learn to express their emotions, and turn to their significant other to feel relief, hope, and a deeper connection. Through the therapeutic process, EFT confirms what these individuals are looking for and helps them to develop more positive regulation strategies by learning to express their emotions and attachment longings and needs. These results enable therapists to assess couple prognosis and if necessary adjust the types of interventions they may use, such that couples are able to engage in the key change events in EFT, which has been linked to positive outcomes (Bradley & Furrow, 2004).

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APPENDIX
HIERARCHICAL LINEAR MODELING EQUATIONS

Equation 1. Base model

Level 1 (repeated measures): $Y_{ij} = \pi_{0ij} + e_{ij}$
 Level 2 (individuals): $\pi_{0ij} = \beta_{00j} + r_{0ij}$
 Level 3 (couples): $\beta_{00j} = \gamma_{000} + u_{00j}$

Equation 2. Unconditional linear model controlling for pre-DAS scores for Hypothesis 1

Level 1 (repeated measures): $Y_{ij} = \pi_{0ij} + \pi_{1ij}(\text{Time})_{ij} + e_{ij}$
 Level 2 (individuals): $\pi_{0ij} = \beta_{00j} + \beta_{01j}(\text{PREDAS}) + r_{0ij}$
 $\pi_{1ij} = \beta_{10j} + \beta_{11j}(\text{PREDAS})$
 Level 3 (couples): $\beta_{00j} = \gamma_{000} + \gamma_{001}(\text{DAS_Couple}) + u_{00j}$
 $\beta_{01j} = \gamma_{010}$
 $\beta_{10j} = \gamma_{100} + \gamma_{101}(\text{DAS_Couple}) + u_{10j}$
 $\beta_{11j} = \gamma_{110} + u_{11j}$

Equation 3. conditional linear model controlling for pre-DAS scores for Hypotheses 2, 3, and 4

Level 1 (repeated measures): $Y_{ij} = \pi_{0ij} + \pi_{1ij}(\text{Time})_{ij} + e_{ij}$
 Level 2 (individuals): $\pi_{0ij} = \beta_{00j} + \beta_{01j}(\text{PREDAS}) + \beta_{02j}(\text{attachment anxiety})_{ij}$
 $+ \beta_{03j}(\text{attachment avoidance})_{ij} + \beta_{04j}(\text{emotional control})_{ij}$
 $+ \beta_{05j}(\text{relationship trust})_{ij} + r_{0ij}$
 $\pi_{1ij} = \beta_{10j} + \beta_{11j}(\text{PREDAS}) + \beta_{12j}(\text{attachment anxiety})_{ij}$
 $+ \beta_{13j}(\text{attachment avoidance})_{ij} + \beta_{14j}(\text{emotional control})_{ij}$
 $+ \beta_{15j}(\text{relationship trust})_{ij}$
 Level 3 (couples): $\beta_{00j} = \gamma_{000} + \gamma_{001}(\text{DAS_Couple}) + u_{00j}$
 $\beta_{01j} = \gamma_{010}$
 $\beta_{02j} = \gamma_{020}$
 $\beta_{03j} = \gamma_{030}$
 $\beta_{04j} = \gamma_{040}$
 $\beta_{05j} = \gamma_{050}$
 $\beta_{10j} = \gamma_{100} + \gamma_{101}(\text{DAS_Couple}) + u_{10j}$
 $\beta_{11j} = \gamma_{110} + u_{11j}$
 $\beta_{12j} = \gamma_{120}$
 $\beta_{13j} = \gamma_{130}$
 $\beta_{14j} = \gamma_{140}$
 $\beta_{15j} = \gamma_{150}$

Note. The random component for the slope was fixed at level 2 due to only two members in the lower level units, requiring individual linear slopes to be equal across dyads (Atkins, 2005; Kenny, Kashy, & Cook, 2006). Omitting the random component for the slope poses a problem only if partners move in opposite directions on the DAS resulting in different slopes (Atkins, 2005). It is assumed that partners move in the same direction (Atkins, 2005). At level 3, the variance component for the pre-DAS intercept is fixed due to the effect not being significant and too few degrees of freedom available to compute the variance components (Singer & Willett, 2003).

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