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# Recovery From Infidelity: Differentiation of Self, Trauma, Forgiveness, and Posttraumatic Growth Among Couples in Continuing Relationships

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Clinicians and researchers report that individuals can heal from the trauma of infidelity and that forgiveness and even personal growth are possible after infidelity takes place. However, research has not explored specific variables that should relate to these outcomes. We defined personal growth as posttraumatic growth (PTG) and examined the relationships of differentiation of self from family of origin, trauma, forgiveness, and PTG in a sample of individuals remaining in a relationship in which infidelity had occurred. Results showed that differentiation was positively related to forgiveness levels and also moderated the relationship between trauma and forgiveness. The only significant predictor of PTG, however, was forgiveness.

*Keywords:* infidelity, differentiation of self, forgiveness, posttraumatic growth



Infidelity remains one of the most difficult issues faced by couples and for the counseling professionals who work with them. Reviews consistently document that somewhere between 22 and 25% of men and 11 and 15% of women are willing to report having sex with someone other than their spouses while married (Allen et al., 2005; Mark, Janssen, & Milhausen, 2011). Additionally, in a study of divorced men and women, 40% of men and 44% of women reported having more than one extramarital sexual contact during their marriages (Janus & Janus, 1993). The negative consequences of infidelity are easily and readily identified and include loss of trust; damaged self-esteem; disruption to other relationships such as those with children, friends, or parents; financial consequences; and emotional problems (Charny & Parnass, 1995; Schneider, Irons & Corley, 1999). Furthermore, infidelity is the most frequently cited cause of divorce reported by couples (Schneider, Irons & Corley, 1999; Whisman, Dixon, & Johnston, 1997; Winek & Craven, 2003). On the brighter side, Atkins, Marín, Lo, Klann, and Hahlweg (2010) found that couples who sought couples therapy after infidelity experienced the same levels of good outcomes as did couples who entered counseling for other reasons.

Despite the well-documented negative effects of infidelity, researchers and clinicians report that committed partnerships can survive the trauma of infidelity, and that further, personal growth in the wake of infidelity is possible (Abrahamson, Hussain, Khan, & Schofield, 2012; Gordon & Baucom, 1998). Therefore, the purpose of this study is to describe a sample of individuals who remained in a relationship where infidelity had occurred and to conduct a preliminary exploration of factors related to recovery from infidelity. We defined recovery from infidelity as forgiveness (Gordon & Baucom, 1998) and posttraumatic growth (PTG; Tedeschi & Calhoun, 2006). Because there are few empirical studies of couples who stay together, we were interested in variables that should theoretically be related to relationship maintenance and PTG, including levels of trauma experienced and individuals' response tendencies to relationship stress, operationalized as differentiation of self from the family of origin (Kerr & Bowen, 1988). For the purposes of this study, we focused on individuals who

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reported that their partners had engaged in sexual intercourse with someone else during a committed relationship. To better study variables related to recovery, we required that individuals still be in the relationship where infidelity occurred and that the infidelity had occurred >6 months before participation in our study.

## Healing From Infidelity

Although writers argue that infidelity can offer an "opportunity for growth through insight and personal and couple understanding" (Balswick & Balswick, 1999, p. 423), it seems that empirical investigation of this phenomenon is scarce. A few studies suggest that a small proportion of couples among whom infidelity has occurred stay together and report improvement in their relationships and increases in personal insight and understanding. For example, Charny and Parnass (1995) asked a sample of therapists to report on an incident of infidelity with which they were very familiar. They found that 15% of the therapists reported that the relationships in question improved after the infidelity, whereas the remaining therapists characterized the relationship as remaining the same or deteriorating. In a study examining infidelity in the context of committed heterosexual relationships, Hansen (1987) asked a sample of 215 participants about the impact of their own and their partner's extradyadic relations on their current committed relationships. Hansen found that 19.8% of participants reported that their own extradyadic relations improved the quality of their dating relationship a "great deal," and 31.3% reported that the affair improved the dating relationship "somewhat." A small percentage of participants in the study also reported that a partner's affair improved the quality of their relationship (6.5% for a "great deal" and 13.0% for "somewhat"; Hansen, 1987). Unfortunately, Charny and Parnass' and Hansen's studies used survey methods that simply asked participants to rate improvement with no further definition given to participants. We located two qualitative studies of the process individuals experienced after the disclosure of an affair. Olson, Russell, Higgins-Kessler, and Miller (2002) interviewed 13 individuals (11 women, 2 men), 11 of whom were still in the relationship in which the infidelity had occurred, and reported that some of their participants described positive outcomes including "developing a closer marital relationship, becoming more assertive, realizing the importance of good marital communication, placing higher value on the family, and taking better care of oneself" (p. 430). Abrahamson et al. (2012) studied the process of couples who stayed together at least 2 years after an affair using a narrative qualitative approach. They interviewed seven individuals (four men and three women), two of whom were the noninvolved partner. Attending couples counseling, addressing intrusive and negative memories, and learning from others who had weathered infidelity were important themes that emerged from Abrahamson et al.'s data. Both Olson et al. and Abrahamson et al. found that forgiveness and understanding the meaning of the affair were important themes. In sum, it appears that some evidence exists that relationships can survive infidelity and that some individuals report experiencing positive outcomes after affairs. However, in this small amount of research, the definitions of positive outcomes are fuzzy and possible predictors of these outcomes were not explored, although there seems to be agreement that forgiveness is essential to healing after infidelity (Gordon, Baucom & Snyder, 2005). In the following sections, we will discuss forgiveness as an important process involved in healing along with variables that might be related to it.

## Forgiveness

In the infidelity literature, the most frequently cited treatment model is the trauma-based model of forgiveness (Baucom, Gordon, Snyder, Atkins, & Christensen, 2006; Gordon & Baucom, 1998; Gordon et al., 2005). In this model, forgiveness is an ongoing process that takes time, rather than a distinct event. Gordon and Baucom (1998) presented a three-stage forgiveness model that conceptualized recovery from an affair as essentially the same as the process recovery from any interpersonal trauma. The stages in this model are I: *dealing with the impact*, II: *search for meaning*, and III: *recovery or moving forward*. Individuals who are in Stage I report the least amount of forgiveness and individuals in Stage III report the highest levels of forgiveness. Gordon, Baucom, and Snyder (2004) examined the model using a replicated case study of six couples who entered and completed treatment that was designed to

help couples to recover from an affair. After treatment, the couples were found to be less distressed, reporting fewer posttraumatic stress symptoms, less depression, less marital distress, and greater forgiveness regarding the affair. Gordon and Baucom (2003) found that couples who report forgiveness after a serious transgression has taken place show more investment in their marriages, greater psychological closeness, more equal balance of power in their marriages, and higher levels of marital adjustment compared with couples who have not yet achieved forgiveness. Other research has demonstrated that forgiveness is related to both relationship and general life satisfaction (Burchard, Yarhouse, Kilian, & Worthington, 2003; Ripley & Worthington, 2002).

### Forgiveness and Trauma

Gordon et al. (2005) likened the forgiveness process to the recovery from a traumatic event and discussed various factors that are likely to influence and complicate the recovery process. In the current study, we measured trauma in a generic way, but we were also interested in several factors thought to influence the level of trauma one experiences as a result of an event like an affair. For example, forgiveness is clearly a process, not an end state (Gordon & Baucom, 1999; Rusbult, Kumashiro, Coolsen, & Kirchner, 2004). Hence, time since the infidelity appears to be an important component of the recovery process.

The level of one's commitment to a relationship may also relate to the level of trauma experienced as a result of infidelity. Stress that occurs within relational roles that are particularly significant to an individual's sense of self is more likely to have a harmful impact on psychological health than stress that takes place in roles that the individual perceives as less vital (Marcussen, Ritter, & Safron, 2004). Events that upset salient identities or that disrupt identities to which individuals are highly committed will have more destructive effects on psychological health compared with stressors that disrupt identities that are not as important or to which individuals are not as committed (Thoits, 1991, 1992). Disruption of a relationship by infidelity may therefore result in higher levels of trauma for highly committed individuals compared to individuals who are less committed to their relationships, so we expected that higher levels of commitment would be related to higher levels of trauma and less forgiveness.

### Differentiation of Self

The challenges of each stage of forgiveness are often discussed, but variables and processes that promote forgiveness seem to have received less attention. One factor that would logically relate to relationship outcomes such as forgiveness is how well individuals generally function in relationships. Differentiation of self from the family of origin, a construct originating in Bowen family system theory, is a relationship variable that may provide an understanding of interpersonal functioning (Bowen, 1978; Kerr & Bowen, 1988). Differentiation of self refers to the ability to experience both intimacy and autonomy within a relationship. Well-differentiated individuals are able to maintain a clearly defined sense of self and engage in meaningful intimacy while allowing others the space for their own positions, whereas individuals with lower levels of differentiation tend to fuse in their interpersonal relationships, reactively distance themselves, or emotionally cut off, particularly when the relationship is stressed (Kerr & Bowen, 1988). Furthermore, well-differentiated individuals are thought to be more resistant to the negative effects of stress, to function better in stressful situations, and to have more satisfying relationships compared to less-differentiated individuals (Bowen, 1978; Kerr & Bowen, 1988). Differentiation is also thought to represent the extent to which individuals can be objective and think clearly, even under stress. These inter- and intrapersonal dynamics led Balswick and Balswick (1999) to suggest that individuals who display low levels of differentiation of self are (a) more likely to engage in extramarital affairs and (b) have a more difficult time recovering from them compared with individuals to higher levels of differentiation.

Research has documented a positive relationship between differentiation of self and relationship satisfaction (Skowron & Friedlander, 1998). Skowron (2000) found that marital satisfaction was positively associated with various dimensions of differentiation identified by Bowen; higher levels of satisfaction were correlated with low levels of emotional reactivity (ER), emotional cutoff (EC), and fusion, along

with higher levels of ability to take I-positions (IPs) in relationships. Conversely, couples in which individuals demonstrated lower levels of differentiation (high ER, cutoff, and fusion; low IP) reported greater marital distress. Gubbins, Perosa, and Bartle-Haring (2010) found similar relationships between husbands' and wives' differentiation of self and marital satisfaction, and also found that differentiation was negatively related to the tendency to become emotionally flooded during arguments for both partners.

Gordon and Baucom (2003) postulated that cognitive processing of the infidelity is critical to the process of recovering from it. We reasoned that the ability to think through situations objectively along with the ability to stay engaged in relationship despite stress (without reacting with extreme emotion or psychologically cutting off), both aspects of differentiation of self, should promote the cognitive work needed for forgiveness. Although limited research has addressed this aspect of differentiation, Gubbins et al.'s (2010) finding regarding differentiation and flooding would seem to support such a conjecture. Further, a few studies have supported a link between differentiation and forgiveness, although not in the context of infidelity. Sandage and Jankowski (2011) tested the relationships between differentiation of self, dispositional forgiveness, and psychological well-being, finding that differentiation of self mediated the relationship between forgiveness and psychological functioning. Holeman, Dean, DeShea, and Duba (2011) demonstrated that differentiation was related to specific aspects of forgiveness, namely, inhibition of harmful intention and reduction of negative emotion.

## Trauma, Differentiation, and Forgiveness

Although research has documented both mediating and moderating roles of differentiation in the stress–symptom relationship, it is apparent that differentiation is related to how individuals respond to stressful or traumatic situations (Krycak, Murdock & Marszalek, 2012; Murdock & Gore, 2004; Murray, Daniels, & Murray, 2006; Skowron, Wester, & Azen, 2004). Following Bowen's assertion that individuals who are higher in differentiation of self would react more adaptively in the face of stress, we expected that level of trauma experienced as a result of infidelity would be related to forgiveness, and that this relationship would be moderated by differentiation of self. A moderation rather than a mediation model was tested because previous research has supported moderation when a global measure of differentiation is used (Murdock & Gore, 2004; Murray et al., 2006).

## PTG as an Outcome of the Recovery Process

The possibility of growth arising from the struggle with suffering and crisis is a theme that has existed over history (Tedeschi & Calhoun, 2006). Data indicate that for many individuals, the encounter with very negative events and trauma can produce positive psychological change (Tedeschi & Calhoun, 2006), and many studies have shown that after the experience of traumatic events, most individuals report positive life changes (Linley & Joseph, 2004; Tedeschi & Calhoun, 1995). Given that some research has suggested that positive outcomes can be observed after infidelity (Charny & Parnass, 1995; Gordon et al., 2004; Hansen, 1987; Olson et al., 2002), the possibility of PTG is raised as a way to conceptualize these outcomes.

The phenomenon of PTG is understood to be a result of intrapersonal struggle to find benefit and meaning in life after a traumatic experience (Tedeschi & Calhoun, 2004). Five factors of PTG have been identified: personal strength, new possibilities, relating to others, appreciation for life, and spiritual change (Tedeschi & Calhoun, 1996). For example, as a result of experiencing loss and tragedy, many individuals have reported feeling a greater connection to other people in general, mainly a greater sense of compassion for others who suffer (Tedeschi & Calhoun, 2006). After dealing with traumatic events, individuals also describe feeling a greater sense of closeness, intimacy, and freedom to be oneself. Furthermore, individuals experience changed life philosophies and report a changed sense of what is most important—what was once trivial is now important and vice versa. Individuals describe a different sense of life priorities and an increased appreciation for what one actually has (Tedeschi & Calhoun, 2006).

The processes and outcomes involved in the PTG seem to resemble those important in forgiveness in Gordon and Baucom's (2003) model of recovery. Finding meaning in a trau-

matic event is critical to both models, along with the evaluation of self and relationships. In this research, we were interested to see if individuals who experienced infidelity in their relationships and stayed in them experienced PTG, and if they did, what variables might predict it.

## Rationale

The goal of our study was to explore variables that might be related to the recovery from infidelity among a sample of individuals who were still involved in the relationship in which the infidelity occurred. Because little is known about what contributes to personal growth in the aftermath of infidelity, we explored the relations among a number of variables suggested by existing theory and research on relationship functioning and forgiveness. We hypothesized that forgiveness, along with specific relationship variables that might be associated with levels of trauma (e.g., time since infidelity, commitment, relationship satisfaction), would be related to the degree to which individuals experienced PTG after infidelity. We anticipated that individuals with higher levels of differentiation of self are more able to react to stressful situations without emotionally cutting off or reacting with high levels of emotionality compared to those who have lower levels of differentiation, so we predicted that trauma, differentiation of self, and the interaction of trauma and differentiation of self would predict levels of forgiveness. We also added the interaction of differentiation of self and trauma to the equation predicting PTG, although Kerr and Bowen (1988) are largely silent on predictors of psychological growth.

## Method

Participants were 587 individuals recruited via six main Web sites with online support forums specifically designed for individuals recovering from infidelity. The solicitation script was posted to these online discussion forums once a week for 6 months. The questionnaire was filled out by participants anonymously and no identifying information was recorded. Included with the measures was a statement discussing the volunteer nature of the study and the potential risks and benefits of participation.

Participants were informed that they were eligible for the study if they were aged >18 years and currently in a committed relationship with a partner who had sexual intercourse with someone other than them during the course of the relationship. Because we reasoned that forgiveness and PTG take time to emerge, we required that the infidelity took place at least 6 months before the time of participation in the study. Data collection ended once 1018 individuals responded to the survey. In all, 338 respondents did not complete the measures, and an additional 63 respondents did not meet inclusion criteria of the infidelity occurring 6 months prior.

The pattern of missing data for the remaining cases was examined and found to be missing at random, and very small (<5%). Expectation-maximization imputation was used to estimate missing values (Tabachnick & Fidell, 2008). Chi-square tests were used to see if there were significant differences between individuals who completed the survey and those who dropped out (and were thus excluded from the analyses).

Significant differences were found between the individuals who completed the survey and those who did not on age, ethnicity, and sexual orientation, but no differences were found between the two groups on gender. An independent-samples $t$ test was conducted to test for differences between the two groups on age. Results indicated that participants who completed the survey ($M = 46.15$, standard deviation [$SD$] = 9.03) were significantly older than those who did not complete the survey ($M = 43.33$, $SD = 10.93$; $t(833) = 3.70$, $p < .001$). Additionally, there were significant differences in the sexual orientation of participants who completed the survey and those who did not, with significantly more heterosexual participants in the group who completed the survey than in the group that dropped out, $\chi^2(2) = 6.00$, $p < .05$.

The final sample of 587 consisted of 86% women, and 12.6% men (eight individuals did not respond); average age was 46.15 ($SD = 9.03$), with a range of 21–74. Race/ethnicity responses showed the following percentages: 86.9% Caucasian, 3.2% African American, 1.5% Asian, 3.2% Hispanic, .3% Native American, and 3.6% self-classified as "other" (five individuals did not respond). Of the 587 participants, 1.0% identified as bisexual, 96.4% heterosexual, and 1.4% homosexual. In all, 93.5% of the respondents reported being married and

6.5% were in a committed dating relationship when the affair took place. Current relationship status of the sample consisted of 95.1% married and 4.9% in a committed dating relationship. These discrepancies appear to result from several participants changing their status from committed relationship to married subsequent to the affair. On average, the infidelity had taken place 3.9 years prior, but the range for this variable was enormous, from 6 months to 38 years ($SD = 4.98$).[1]

## Measures

The survey package included demographic items assessing the context of the affair (e.g., time since the affair, relationship status when affair took place) and measures of trauma, relationship commitment, posttraumatic growth, differentiation of self, current relationship satisfaction, and stage of forgiveness. The demographic survey asked about the participant's age, racial/ethnic background, sexual orientation, gender, relationship status when the infidelity took place, current relationship status, and the amount of time since the infidelity took place.

### Trauma

Because trauma was conceptualized to be analogous to stress in the current study, the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979) was used to assess the impact of the infidelity. The IES assesses responses to potentially traumatic events and has been used in both clinical and nonclinical samples (Briere & Elliott, 1998). Items for the IES were derived from statements most frequently used to describe episodes of distress by persons who had experienced significant life changes (Horowitz et al., 1979). Participants were instructed to respond to the items considering how they felt as a result of the affair. Two subscales have been identified in this 15-item instrument, intrusion and avoidance. Intrusion items tapped the experience of unbidden thoughts and images, troubled dreams, strong pangs or waves of feelings, and repetitive behavior. Avoidance responses included ideational constriction, denial of the meanings and consequences of the event, blunted sensation, behavioral inhibition or counterphobic activity, and awareness of emotional numbness (Horowitz et al., 1979). On the measure, participants indicate the frequency of the experience of each item (1 = *not at all*, 2 = *rarely*, 3 = *sometimes*, and 4 = *often*; Horowitz et al., 1979). In previous research, test–retest reliability was .87 and internal consistency ranged from .78 to .82 (unless otherwise noted, all internal consistency coefficients are Cronbach's alpha; Horowitz et al., 1979). In a study with nonclinical college students, Cronbach's alphas were found to be .89 for the intrusion scale and .85 for the avoidance scale (Thatcher & Krikorian, 2005). The instrument was also found to be internally consistent as a unidimensional scale, with a reliability coefficient of .91 (Thatcher & Krikorian, 2005). In the current study, the total scale score was used and Cronbach's alpha was found to be adequate at .71.

### Differentiation of Self

The Differentiation of Self Inventory–Revised (DSI-R; Skowron & Schmitt, 2003) was used to assess differentiation of self from the family of origin. The DSI-R is a 46-item self-report measure that focuses on adults, their significant relationships, and current relationships with their family of origin. The DSI-R uses a 6-point scale ranging from 1 (*not at all true of me*) to 6 (*very true of me*). The scale is made up of four subscales to measure differentiation including EC, ER, fusion with others (FO), and IP. Skowron and Schmitt (2003) found that internal consistency of the full scale was .92 and that subscale internal consistency ranged from .81 to .89. In the current study, internal consistency for the full scale was acceptable; Cronbach's alpha was .90. Construct validity is indicated by the inverse relationship found between DSI-R scores and symptoms, perceptions of stress, and chronic anxiety (Murdock & Gore, 2004; Skowron & Friedlander, 1998; Skowron, Wester, & Azen, 2004). Given the moderation hypotheses we proposed in this study, we used the DSI-R total scores for the main analyses in order to have sufficient power (Aiken & West, 1991).

[1] Given the range on this variable, we recomputed analyses after removing outliers. However, the results did not change so we reverted to the original analyses using all data.

## Commitment

Participants' level of commitment was measured using the Investment Model Scale (IMS; Rusbult, Martz, & Agnew, 1998). This scale is made up of 25 items that fall into four subscales: commitment level and three bases of dependence, namely, satisfaction level, quality of alternatives, and investment size. Sample items of the measure include "I want our relationship to last for a very long time" (i.e., commitment level), "Our relationship is close to ideal" (i.e., relationship satisfaction), "If I weren't dating/married to my partner, I would find someone else" (i.e., alternative quality), and "I have put a great deal into our relationship that I would lose" (i.e., investment size). Higher scores in the IMS represent higher levels of commitment to the relationship. Responses range from 0 (*do not agree at all*) to 8 (*agree completely*) for each item. In a study sampling college students, Rusbult et al. (1998) found that reliability analyses revealed good internal consistency, with Cronbach's alphas for the subscales ranging from .82 to .95. Principal component analyses (PCAs) performed on the scale items revealed evidence of four factors and all items loaded on a single factor with coefficients exceeding .40, and no items exhibited cross-factor loadings exceeding an absolute value of .40 (Rusbult et al., 1998). The IMS variables were moderately associated with other measures reflecting good couple functioning (e.g., dyadic adjustment, trust level, inclusion of other in the self), and were essentially unrelated to measures assessing personal dispositions (e.g., need for cognition, self-esteem; Rusbult et al., 1998). Because we were specifically interested in assessing commitment level, we only used the seven items that apply to commitment level to one's romantic relationship. Cronbach's alpha for the subscale in the current study was .90.

## Relationship Satisfaction

The Dyadic Adjustment Scale (DAS; Spanier, 1976) is a 32-item measure designed to assess relational satisfaction. The DAS uses several different response scales, most of which are Likert-type scales asking participants to rate their level of agreement, frequency of types of interactions with their partners, or level of satisfaction in the relationship. Scores on the items of the DAS are summed to create a total score ranging from 0 to 151, with higher scores indicating more positive dyadic adjustment, and scores ranging from 97 to 102 are used as cutoffs to indicate distress (Graham, Liu, & Jeziorski, 2006). The DAS has good internal consistency ($\alpha = .96$) and good test–retest reliability ($r = .96$) after 11 weeks (Spanier, 1976). In the current study, Cronbach's alpha for the full scale was .81. Research examining the validity of the DAS has shown that total DAS scores have been consistently shown to discriminate between distressed and nondistressed couples and have been shown to identify couples with a high likelihood of divorce (Crane, Busby, & Larson, 1991). PCA indicated that the DAS is a unidimensional measure.

## Forgiveness

The Forgiveness Inventory (FI; Gordon & Baucom, 2003) is a 23-item questionnaire that is used to assess injured partner's progress through the three-stage forgiveness model. The FI contains three subscales that assess: (a) Stage I experiences, (b) Stage II experiences, and (c) Stage III experiences. Participants rate each item on a scale ranging from 1 (almost never) to 5 (almost always). To classify individuals into stages of forgiveness, raw scores for each subscale are converted to *z*-scores, and based on the directions from Gordon and Baucom (2003), participants are assigned to the stages based the highest of the three subscale *z*-scores. Low scores in Stages I and II and higher scores in Stage III reflect higher levels of forgiveness.

Participants in the scale development study were couples recruited from a university or marital clinic and a confirmatory factor analysis verified the existence of the three subscales, with each containing cognitive, behavioral, and affective components ($\alpha = .85$, .76, and .75, respectively; Gordon & Baucom, 2003). Cronbach's alpha for the three stages were at acceptable levels of reliability at .85, .76, and .75 for Stages I, II, and III, respectively (Gordon & Baucom, 2003). Gordon and Baucom also examined the intercorrelations between the three factors. As hypothesized, the Stage I and Stage II factors were positively correlated, $r = .66$; the Stage III factor was negatively correlated with the Stage I factor, $r = -.20$; and the Stage III factor was positively cor-

related with the Stage II factor, $r = .23$. In the current study, Cronbach's alphas for the scales were .81, .62, and .81 for the Stage I, the Stage II, and the Stage III subscales, respectively. Two of the three subscale intercorrelations followed expected patterns (see Table 1 for intercorrelations): Stage III scores were negatively correlated with Stage I scores, and Stage I was correlated positively with Stage II. However, Stage II and III scores were negatively correlated.

### Posttraumatic Growth

The PTGI (Tedeschi & Calhoun, 1996) is a 21-item self-report inventory that measures an individual's perception of positive change after a traumatic life event. Participants are asked to rate on a scale from 0 (*I did not experience this change as a result of my crisis*) to 5 (*I experienced this change to a very great degree as a result of my crisis*), how much their views have changed as a result of the trauma they experienced. Participants were instructed to respond to the items as they reflected responses to the infidelity they had experienced. The scale includes five factors: new possibilities, relating to others, personal strength, spiritual change, and appreciation for life.

The PTGI was developed and validated in a sample of college students. Cronbach's alphas for the subscales ranged from .67 to .85, and overall internal consistency for the normative sample was .90. In the current study, the internal consistency coefficient was .95. Test–retest reliability for the PTGI was found to be strong in the normative sample ($r = .71$). To assess the concurrent and discriminant validity of the PTGI, the relationship between the PTGI and other validated scales measuring individual difference variables was examined (Tedeschi & Calhoun, 1996). Results indicated that the PTGI scores were not significantly correlated with scores of measures of social desirability or neuroticism but were moderately correlated with variables that would be expected to be related, such as optimism, positive emotion, and openness (Tedeschi & Calhoun, 1996).

## Results

### Preliminary Analyses

Before conducting regression analyses, collinearity, histograms, and normal probability plots of the residuals were examined. Standardized residuals, Cook's distance, leverage, and Mahalanobis distances were also examined. The tested assumptions were met, except for the assumption of normality for relationship satisfaction and commitment, which were negatively skewed. Means and SDs for the scales and intercorrelations among the variables (trauma, commitment, differentiation of self total and subscale scores, forgiveness, relationship satisfaction, and PTG) can be found in Table 1. Results indicated that DSI-R total scores positively correlated with Stage III FI scores, as did three of four of the DSI-R subscales (the exception was FO). In addition, DSI-R scores correlated positively with DAS and PTGI scores and negatively with Stage I and II FI scores. PTGI scores correlated negatively with Stage I and II FI scores and positively with Stage III scores. IES scores negatively correlated with DAS and DSI-R scores. We found significant positive relations between time since the infidelity and the DSI-R subscales ER, IP, and FO, and DAS scores. Stage I and II FI scores were negatively correlated with time since the infidelity.

We examined the dimensionality of the DSI-R, DAS, and PTGI using PCA. Results indicated that each measure was unidimensional because the first eigenvalue was at least three times greater than the second eigenvalue in each case. However, for the DSI-R, the eigenvalue of the first factor was 2.8 times greater than the eigenvalue of the second factor, and a visual inspection of the scree plot indicated a less clear factor solution than for the other two scales. Thus, the dimensionality of the DSI-R in this sample is somewhat subjective. Owing to the exploratory nature of this study, and given that there are some logical relationships between subscales and forgiveness, for example (ER and EC interfering with forgiveness), we decided to use full-scale DSI-R scores for the main regression analyses, and to limit subscale-level analyses to correlations between DSI-R subscales and forgiveness. Keeping in mind that higher scores on the DSI-R are indicative of higher levels of the dimension of differentiation under consideration, we observed negative correlations between the DSI-R subscale scores (the strongest for the EC subscale) and Stage I and II FI scores and positive correlations between DSI-R subscale scores (the highest again for EC) and Stage III FI scores. The one exception

Table 1
*Distributional Statistics, Cronbach's Alpha Reliabilities, and Intercorrelations of the Variables in the Model* (N = *587*)

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. IMS[a] | .90 | | | | | | | | | | | | |
| 2. PTGI | .166** | .95 | | | | | | | | | | | |
| 3. DSI-R | .271** | .201** | .90 | | | | | | | | | | |
| 4. DSI-R-ER | .069 | .052 | .687** | .84 | | | | | | | | | |
| 5. DSI-R-IP | −.005 | .244** | .632** | .450** | .75 | | | | | | | | |
| 6. DSI-R-EC[b] | .359** | .046 | .713** | .381** | .189** | .78 | | | | | | | |
| 7. DSI-R-FO | −.061 | −.027 | .315** | .662** | .502** | .331** | .78 | | | | | | |
| 8. DAS[c] | .485** | .086** | .327** | .173** | .091* | .411** | .107** | .81 | | | | | |
| 9. IES | −.060 | −.018 | −.178** | −.143** | −.033 | −.229** | −.092* | −.114** | .71 | | | | |
| 10. FI Stage I | −.476** | −.221** | −.449** | −.363** | −.204** | −.422** | −.205** | −.351** | .187** | .81 | | | |
| 11. FI Stage II | −.046 | −.138** | −.203** | −.300** | −.111** | −.165** | −.230** | −.090* | .157** | .433** | .62 | | |
| 12. FI Stage III | .495** | .365** | .431** | .246** | .271** | .325** | .067 | .342** | −.089* | −.657** | −.136** | .81 | |
| 13. Time | −.003 | −.052 | .080 | .117** | .083* | .065 | .100* | .084* | −.061 | −.085* | −.152** | .053 | |
| Minimum | .24 | 0 | 107 | 11 | 20 | 10.58 | 18 | 50.57 | 20 | 8 | 8 | 8 | .49 |
| Maximum | 2 | 105 | 213 | 61 | 66 | 17 | 72 | 59 | 45 | 40 | 40 | 35 | 38 |
| *M* | 1.23 | 60.52 | 167.71 | 35.03 | 43.84 | 13.53 | 46.52 | 54.43 | 36.72 | 22.23 | 30.62 | 23.70 | 3.09 |
| *SD* | .55 | 25.37 | 17.62 | 10.65 | 8.58 | 1.19 | 10.34 | 1.25 | 4.21 | 6.28 | 4.93 | 5.58 | 4.98 |

*Note*. IMS = Investment Model Scale; PTGI = Posttraumatic Growth Inventory; DSI-R = Differentiation of Self Inventory–Revised; DSI-R-ER = Differentiation of Self Inventory–Revised–Emotional Reactivity subscale; DSI-R-IP = Differentiation of Self Inventory–Revised–I-Position subscale; DAS = Dyadic Adjustment Scale; DSI-R-EC = Differentiation of Self Inventory–Revised–Emotional Cutoff subscale; DSI-R-FO = Differentiation of Self Inventory–Revised–Fusion With Others subscale; IES = Impact of Event Scale; FI = Forgiveness Inventory; Time = Years since infidelity.
[a] Transformed with $2 - \text{Log}(57 - X)$. [b] Transformed with $18 - (73 - X)^{1/2}$. [c] Transformed with $60 - (152 - X)^{1/2}$.
* $p < .05$. ** $p < .01$.

to this pattern of significant relationships is that FO scores were not significantly correlated with Stage III FI scores.

Based on Gordon and Baucom's (2003) instructions, each scale of the FI (Gordon & Baucom, 2003) was considered separately. Raw scores for each subscale were converted to *z*-scores and then compared. Each participant was assigned to a forgiveness stage based on his or her highest *z*-score (Gordon & Baucom, 2003). Participants in this study could be classified into all three forgiveness stages (Stage I: 33.7%, Stage II: 27.4%, and Stage III: 38.8%). Because we were most interested in individuals' progress toward the higher levels of forgiveness, Stage III scores were used to run the regression analyses described next.

## Predictors of Forgiveness

To test the hypothesis that differentiation of self and trauma predict forgiveness, a hierarchical linear regression was conducted with DSI-R and IES scores as predictors of Stage III FI scores (Table 2). To help prevent multicollinearity that is introduced by the creation of the interaction term, the predictor variables were centered by subtracting the mean for the variable from all scores. The predictors (centered IES scores and centered DSI-R scores) were entered first, followed by the interaction term (centered IES × DSI-R) in the second step. Results indicated that the regression equation with IES and DSI-R scores significantly predicted forgiveness scores ($F(2, 584) = 66.62$, $p < .001$, $R^2 = .186$). Examination of the beta weights showed that differentiation of self was a significant predictor ($\beta = .429$, $p < .001$) but trauma (IES) was not ($\beta = -.013$, $p > .05$). The second step of the regression equation in which the interaction term was entered was also statistically significant, ($F(3, 583) = 48.83$, $p < .001$, $R^2 = .201$) and the addition of the interaction term produced a significant increase in $R^2$ ($\Delta R^2 = .02$; $F(1, 583) = 3.14$, $p < .001$; adjusted $R^2 = .20$, $p < .05$; Table 2). Examination of the beta weights in Step 2 indicated that differentiation of self ($\beta = .429$, $p < .001$) and the interaction of differentiation of self and trauma ($\beta = -.124$, $p = .001$) were significant predictors, but trauma was not ($\beta = .007$, $p > .05$). Figure 1 shows the graph of the moderation of the effect of trauma on forgiveness by differentiation of self with differentiation set at minus 1 *SD*, plus 1 *SD*, and at the mean. An analysis of the simple slopes of regression plotted for forgiveness at the three levels of differentiation demonstrated that the high-differentiation and low-differentiation groups' slopes were significantly different from zero ($t = -2.3478$, $p = .05$ for high differentiation; $t = 2.2646$, $p < .05$ for low differentiation) and from one another (95% confidence intervals around their slope values did not overlap; $CI_{95} = -.025$ to $-.28$ and .023 to .322 for high and low differentiation, respectively).

## Predictors of PTG

To examine what predicts PTG, we conducted a hierarchical linear regression with PTG (PTGI) as the criterion variable and time since infidelity, differentiation of self (DSI-R), trauma (IES), relationship satisfaction, commit-

Table 2
*Summary of Hierarchical Regression With Predictors of Forgiveness*

| Variable | B | Standard error B | β | $R^2$ | Adjusted $R^2$ | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| Step 1 | | | | .186 | .183 | .186 |
| DSI-R | .136 | .012 | .429* | | | |
| IES | −.017 | .050 | −.013 | | | |
| Step 2 | | | | .201 | .197 | .015* |
| DSI-R | .136 | .012 | .429* | | | |
| IES | .010 | .050 | .007 | | | |
| IES × DSI-R | −.009 | .003 | −.124* | | | |

*Note*. DSI-R = Differentiation of Self Inventory–Revised; IES = Impact of Event Scale; IES × DSI-R = Interaction term of Impact of Event Scale and Differentiation of Self Inventory–Revised.
* $p < .001$.

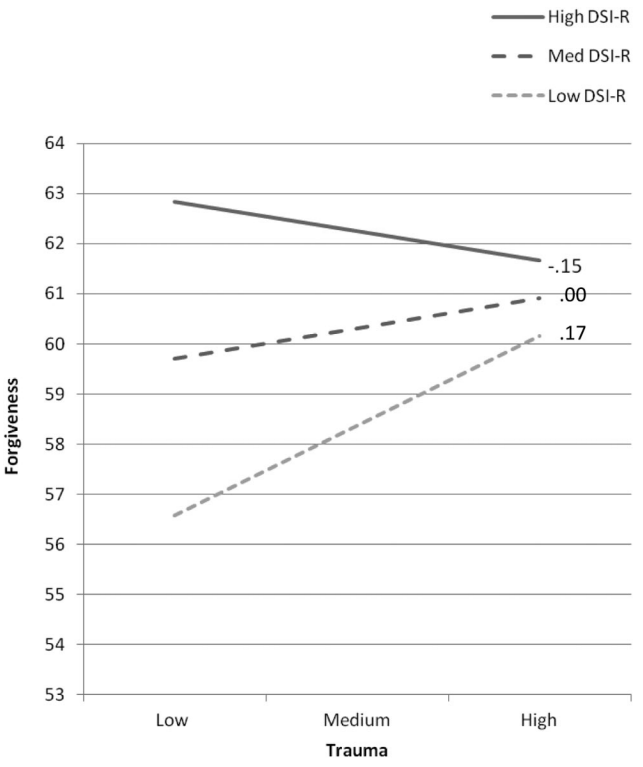


*Figure 1.* Moderation of the effect of trauma on forgiveness by differentiation of self. DSI-R = Differentiation of Self Inventory–Revised.

ment (IMS), and Stage III FI scores as predictors in Step 1. In Step 2 of the regression, we added the interaction of IES and DSI-R (Table 3). To protect against multicollinearity that is introduced by the creation of interaction terms, we centered each predictor variable by subtracting the mean score from individual scores on each variable. Results indicated that the regression equation containing time since infidelity, DSI-R, IES, IMS, relationship satisfaction, and Stage III FI scores significantly predicted PTGI scores ($F(6, 58) = 16.23$, $p < .001$, $R^2 = .144$). However, examination of the beta weights showed that only the beta for Stage III FI scores was significantly different from zero ($\beta = .359$, $p < .001$); regression coefficients for time since infidelity, DSI-R, IMS, IES, and DAS scores were not. The second step of the regression equation in which the interaction term was entered was also statistically significant ($F(7, 579) = 14.13$, $p < .001$, $R^2 = .146$), but the addition of the interaction term did not produce a significant increase in $R^2$ ($\Delta R^2 = .002$; $F(1, 579) = 1.47$, $p > .05$; Table 3). Examination of the beta weights in Step 2 indicated that Stage III FI score remained the only significant predictor ($\beta = .352$, $p < .001$).

## Discussion

Because little is known about what variables contribute to personal growth and relational improvement in the aftermath of infidelity, the aim of this study was to explore specific variables that are thought to influence the trajectory of the recovery process from infidelity. The results help to shed light on variables that may be critical to the healing process and the ability to move forward after the experience of infidelity.

The hypothesis that trauma, differentiation of self, and the interaction between trauma and differentiation of self would predict forgiveness was partially supported. Level of trauma was not found to be a predictor of forgiveness, ex-

Table 3
*Summary of Hierarchical Regression With Predictors of Posttraumatic Growth*

| Variable | B | Standard error B | β | $R^2$ | Adjusted $R^2$ | $\Delta R^2$ |
|---|---|---|---|---|---|---|
| Step 1 | | | | .144 | .135 | .144 |
| Time since infidelity | −.362 | .197 | −.071 | | | |
| DSI-R | .11 | .063 | .073 | | | |
| IMS | −.283 | 2.205 | −.006 | | | |
| IES | .097 | .236 | .016 | | | |
| DAS | −1.00 | .919 | −.050 | | | |
| FI Stage III | 1.632* | .216 | .359 | | | |
| Step 2 | | | | .146 | .136 | .002 |
| Time since infidelity | −.361 | .197 | −.071 | | | |
| DSI-R | .110 | .063 | .076 | | | |
| IES | −.408 | 2.207 | −.009 | | | |
| IES | .143 | .239 | .024 | | | |
| DAS | −.959 | .920 | −.047 | −1.043 | | |
| FI Stage III | 1.603* | .217 | .352 | 7.393 | | |
| IES × DSI-R | −.016 | .013 | −.048 | −1.214 | | |

*Note.* DSI-R = Differentiation of Self Inventory–Revised; IMS = Investment Model Scale; IES = Impact of Event Scale; DAS = Dyadic Adjustment Scale; FI Stage III = Forgiveness Inventory, Stage III score; IES × DSI-R = Interaction term of Impact of Event Scale and Differentiation of Self Inventory–Revised.
* $p < .001$.

cept in interaction with differentiation of self. This result would seem to have implications for the trauma-based model of forgiveness proposed by Baucom et al. (2006). However, this was a retrospective study, and it is possible that over time, levels of trauma experienced at the time of the infidelity become less salient as individuals move through the forgiveness process. To participate in our study, we required that at least 6 months have passed since the affair ended and the average time since the affair was about 3 years. Given that our couples were still together, it perhaps makes some sense that experiences of intrusion and avoidance are not a strong predictor of forgiveness that far out. The observation that the highest score in the sample on the IES was 45 and the mean was 22, when the scale has a potential high score of 60, might support the hypothesis that the retrospective nature of our measure resulted in lower levels of recalled trauma.

As hypothesized, differentiation of self was a significant predictor of forgiveness. Inspection of Figure 1 and the correlation between differentiation and trauma indicate that individuals with higher levels of differentiation reported more forgiveness and less trauma overall than did respondents who were lower in differentiation. In addition, three of four subscales of the DSI-R were significant predictors of forgiveness: less EC, less ER, and more IP were associated with higher levels of forgiveness. An important facet of Stage III in the Gordon et al. (2004) model of forgiveness of infidelity includes partners' increased understanding of each other, themselves, and their relationship to "free themselves from being dominated by negative thoughts, feelings, and behaviors" (p. 216). Accordingly, individuals who are less emotionally reactive and more able to stay connected (i.e., lower EC) and who have the ability to calmly state their positions (i.e., more IP) may deal better with the immediate issues and emotions that arise as a result of the infidelity because they are more able to stay engaged in the needed processing over time.

However, we also thought that the relationship between trauma and forgiveness would be moderated by differentiation of self, with participants higher in differentiation being less affected by the level of trauma than those lower in differentiation of self. Previous research has indicated that under high stress, individuals with lower differentiation show more psychological symptoms than do individuals higher in differentiation of self—that is, they react more to the stress. Inverting this reasoning, we ex-

pected that individuals lower in differentiation would show lower levels of forgiveness under highly traumatic conditions compared with less traumatic ones. In our data, the differentiation of self moderated the relationship between trauma and forgiveness, and inspection of Figure 1 indicated the significant interaction resulted from the difference in slopes between the high- and low-differentiated groups; participants lower in differentiation of self showed more forgiveness under high-trauma conditions than in lower-trauma conditions. In contrast, those with high differentiation showed less forgiveness under high-trauma conditions than under lower-trauma levels.

The relationships between trauma, differentiation, and forgiveness are, at first glance, puzzling. However, several aspects of these findings invite consideration. First, and perhaps most prominently, we conceptualized trauma as analogous to stress in this study, and it is possible that the trauma related to an affair as measured in this study is not comparable with the distress caused by stressful life events measured in previous research. The IES assesses the classic symptoms resulting from trauma (i.e., intrusion and avoidance responses) rather than perceived stress as assessed in other studies (Krycak et al., 2012; Murdock & Gore, 2004). Also, trauma was measured retrospectively, so it is possible that over time, distortions in recall occurred, obscuring the relationships between trauma, differentiation, and forgiveness that existed at the time of the affair. In addition, levels of trauma were relatively low in this research. Finally, it could be that for individuals lower on the differentiation continuum, instances of infidelity that were recalled as less traumatic simply called for less forgiveness, hence the increased levels of forgiveness when higher trauma levels were reported. Higher-differentiated individuals seemed to be indicating that the more they recalled experiencing intrusion and avoidance related to the trauma of the infidelity, the less they were willing to forgive, which we suppose could be understandable. Also, it is important to reiterate that high-differentiated individuals still showed more forgiveness than did those lower in differentiation over all levels of trauma. Future research could investigate these questions more closely, perhaps by using qualitative or mixed-methods approaches.

Apparently, forgiveness trumps all in terms of PTG. None of the other variables we tested emerged as significant predictors of PTG. The lack of relationship between commitment and relationship satisfaction and growth may be accounted for by the fact that only current level of commitment and relationship satisfaction were assessed, which may not be as informative as commitment and relationship satisfaction assessed around the time of the infidelity. In addition, time since infidelity varied widely among participants, and although it may seem surprising that time since infidelity does not correspond to PTG, this lack of relationship may point the critical role of other variables in whether one grows as a result of traumatic events. Time alone does not produce growth.

The only variable that predicted PTG was Stage III FI score; those who were more able to forgive their partners for the infidelity also experienced more growth after the event. This finding is consistent with Gordon and Baucom's (2003) model, in that individuals who evidence high levels of forgiveness are expected to experience higher levels of relational and life satisfaction compared with individuals reporting lower levels of forgiveness. Indeed, those who report higher levels of Stage III forgiveness might be said to be "in recovery" from the affair, and experience greater understanding, a nondistorted view of the relationship, fewer negative emotions, and decreased urges to punish their partners (Gordon & Baucom, 2003). These changes resulting from the forgiveness process seem to parallel the process of PTG, which involves both affective changes and cognitive restructuring of beliefs and assumptions after a traumatic event (Tedeschi & Calhoun, 2004). Thus, it is fitting that those who are more able to forgive their partners' infidelity would develop the emotional relief and cognitive clarity that is characteristic of PTG (Tedeschi & Calhoun, 2004).

## Implications

The results of this study indicate that differentiation of self from the family of origin, forgiveness, and PTG are involved in the process of recovery from infidelity. Therefore, this study has implications for counselors working with clients

who are dealing with infidelity. Formally or informally assessing differentiation of self may help to provide the counselors with a rough idea of how clients are emotionally responding to the infidelity. Furthermore, the results of these assessments could help counselors to gauge how far along the clients are in the recovery process (e.g., signs of EC or ER may indicate less progress) and provide the counselor with information about specific emotional aspects to focus on during counseling sessions, such as helping partners stay connected and to clearly state their positions (i.e., addressing EC and increasing IP) or focusing on managing strong emotional responses to the infidelity (i.e., examining ER). In addition, providing clients with psychoeducation regarding differentiation of self and the importance of maintaining a healthy balance between emotional connection and separateness may help clients stay engaged with their partners during the difficult process of repairing the relationship and ultimately facilitate growth and self-awareness in clients who have experienced infidelity from their partners. In essence, by increasing levels of differentiation of self, partners may be able to weather the processing needed to reach forgiveness. Although Bowen (1978) was somewhat vague when discussing specific interventions aimed at increasing differentiation of self, he noted that psychotherapy could help to increase differentiation by expanding awareness of the difference between emotional functioning and intellectual functioning and also allowing individuals to examine the dynamics of important interpersonal relationships. Because this assertion has not been tested empirically, future counseling process and outcome research should examine whether psychotherapy with these components leads to an increase in differentiation of self.

Our results would encourage clinicians to educate clients on the process of recovery from infidelity that is associated with forgiveness. Educating counselors in training about forgiveness models would therefore seem helpful (for two frequently cited and empirically supported models used to help promote forgiveness, see Worthington et al., 2000, and McCullough & Worthington, 1995). Our results would also encourage clinicians to facilitate the forgiveness process during couples therapy. Greenberg, Warwar, and Malcolm (2010) have found that emotion-focused couples therapy is an effective treatment orientation for promoting forgiveness and alleviating marital distress. To provide counselors with direction on how to use emotion-focused couples therapy to lead couples to forgiveness, Meneses and Greenberg (2011) developed a preliminary model of forgiveness. Our study supports the importance of future research focusing on testing the validity of the model. Counselors may also want to encourage clients to join group-therapy sessions with other clients dealing with infidelity because psychoeducational group interventions have been found to be effective in promoting forgiveness (McCullough & Worthington, 1995). The online support forums specifically designed for individuals dealing with infidelity may also be a useful suggestion for clients. Online support groups have been found to help people effectively cope with a variety of problems and foster well-being by promoting personal empowerment, improving understanding and knowledge, and developing social relationships (Barak, Boniel-Nissim, & Suler, 2008).

## Limitations

There are limitations to this study that should be noted. The characteristics of the sample affect the ability to generalize the results of this study. Our sample consisted of 85.3% women and 86.7% Caucasian participants. Most participants were married. Participants who completed the study were older than those who did not and were largely heterosexual. Therefore, the recovery process for unmarried, male, those of sexual orientations other than heterosexual, or individuals of other races and ethnicities may be different from that observed in this study.

In addition, for the purposes of this study, we focused on individuals who reported that their partners had engaged in sexual intercourse with someone else during a committed relationship. To better study variables related to forgiveness and PTG, we required that individuals still be in the relationship where infidelity occurred and that the infidelity had occurred >6 months before participation in our study. This restriction resulted in retrospective data collection, meaning that our results may have been affected by other, unknown, processes occurring over time. The study was also cross-sectional, so even though from a theoretical perspective the directionality of the relationships we found is sensible (differentiation predicts forgiveness; forgiveness predicts PTG), it cannot be assumed to be the only possibility.

Only nonparticipating partners were included in this study. Characterized as the "injured party" by Gordon et al. (2004), they are probably more willing to participate in research because they are not the guilty ones. By restricting our definition to situations involving sexual intercourse only, we used a narrow definition of infidelity, which has the benefit of precision but the drawback of leaving other types of infidelity unexplored.

The data collection method may have had an effect on results of this study. All of the participants in this study were obtained from online support forums for infidelity. McCullough and Worthington's (1995) findings suggest that group support may promote the experience of forgiveness. Further, Teo (2001) and Weiser (2000) found that women are more likely to use the Internet for support, interpersonal communication, and educational assistance, whereas men typically use the Internet for entertainment, leisure, and purchasing activities. The large majority of female participants in this study would fit with their data. Therefore, to tease out the relationship among these factors and how they relate to forgiveness, replication of this study with participants who are not part of online support groups would be helpful.

The effect sizes found for each hypothesis were small (Cohen, 1988). Therefore, it is a possibility that the significant effects found in this study may be an artifact of the large sample. However, effect sizes for moderator terms are known for being small (Aiken & West, 1991; McClelland & Judd, 1993), as were those observed in the analysis of differentiation and trauma as predictors of forgiveness.

## Conclusion

This study has helped to identify factors that may be important in the recovery process of infidelity and therefore provides counselors with some empirically grounded suggestions to use in their work with individuals recovering from infidelity. Important areas for future research include further exploration of variables that have been empirically linked to forgiveness and the recovery process from infidelity that were outside of the scope of this study, such as empathy, acceptance, religiosity, external support, presence of children, and how long the infidelity lasted (Blow & Harnett, 2005; Rusbult et al., 2004; Worthington, 1998, 2005). Furthermore, the interaction between differentiation of self and trauma level should be clarified in future research, and the links between cognitive and interpersonal process and forgiveness explored. Finally, to improve the ability to generalize the results of this study, replication is needed with participants who are more diverse in gender, ethnicity, sexual orientation, and relationship status. Longitudinal research designs that use forgiveness interventions in a group format may also be a particularly fruitful area of research on the recovery process from infidelity.

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