Coping with infidelity: The moderating role of self-esteem

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ARTICLE INFO

Keywords:
Attribution, infidelity
Mental health
Romantic relationships
Self-esteem
Stress

ABSTRACT

Infidelity is one of the most damaging events individuals face in relationships. Given that a partner's infidelity poses serious threats to emotional and mental health, it is critical to understand what contributes to these consequences and to identify individual factors that might reduce the severity of the infidelity. In applying a stress perspective to infidelity, this study examined the links between negative cognitive appraisals, infidelity-related stress, and mental health outcomes, as well as the moderating effects of self-esteem on these associations, among a sample of 232 individuals who were recently cheated on. Analyses revealed that attributing causality and responsibility to the cheating partner was associated with greater infidelity-related stress, which in turn, was linked to heightened depression and anxiety symptoms. Further, moderation analyses identified self-esteem as an important dispositional protective mechanism. For those with high self-esteem, the effects of negative appraisals on infidelity-related stress, as well as infidelity-related stress on both depression and anxiety, were dampened. These findings reveal the importance of individuals' perceptions of their partners' infidelity, as well as their own self-esteem, on the emotional and mental health toll of infidelity.

1. Introduction

Infidelity is a common yet serious transgression in romantic relationships (Butler, Rodríguez, Roper, & Feinauer, 2010). Infidelity is estimated to occur in 20–25% of marriages (Laumann, Gagnon, Michael, & Michaels, 1994; Wiederman, 1997) and close to 75% of dating relationships (Shackelford, LeBlanc, & Drass, 2000). Though commonplace, infidelity is one of the most damaging transgressions in relationships, with the noninvolved partner (i.e., the partner who was cheated on) experiencing heightened mental health symptoms, including posttraumatic stress symptoms, depression, and anxiety (Bird, Butler, & Fife, 2007; Gordon & Baucom, 1999). The root cause of infidelity's emotional aftermath is complex, spanning social, cultural, and evolutionary reasons, such as seeing the infidelity as a violation in relationship ideals, feeling a sense of loss in time invested in the relationship, societal norms and sanctions, and evolutionary and reproductive costs (Gordon & Baucom, 1999; Shackelford et al., 2000).

Given the prevalence and seriousness of infidelity, it is important to understand what instigates these mental health consequences, as well as to identify protective factors that lessen the harmful effects. In this study, we apply a stress perspective to examine how negative appraisals of the infidelity contribute to infidelity-related stress and increased mental health symptoms among noninvolved partners. We also examine whether self-esteem—a stress buffer—moderates the associations between negative appraisals, infidelity-related stress, and mental health symptoms, ultimately dampening the severity of the infidelity and helping partners to recover. By applying a stress framework, we illuminate how noninvolved partner's perceptions of the infidelity, as well as their level of self-esteem, contribute to the emotional and mental health toll of infidelity.

Stress frameworks, such as transactional stress theory (Lazarus & Folkman, 1984, 1987), posit that outcomes after stressful events are determined by cognitive appraisals and individual-level factors. Cognitive appraisals—meaning one's perception of an event—elicit a psychological and/or physiological stress response that can have positive or negative consequences for health and well-being (e.g., Doron, Thomas-Ollivier, Vachon, & Fortes-Bourbousson, 2013). When individuals report negative appraisals, such as seeing the event as threatening or harmful, they are more likely to experience an elevated stress response that wears on their ability to cope and to use their resources (Lazarus & Folkman, 1984, 1987). In turn, the heightened stress can harm their mental health. Indeed, after an infidelity, noninvolved partners experience heightened depression symptoms, such as feelings of hopelessness and loss of interest in activities, as well as anxiety symptoms, including excessive worry and restlessness (Bird et al., 2007; Gordon & Baucom, 1999).

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https://doi.org/10.1016/j.paid.2019.109631
Received 26 July 2019; Received in revised form 22 September 2019; Accepted 26 September 2019
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Please cite this article as: M. Rosie Shrout and Daniel J. Weigel, Personality and Individual Differences, https://doi.org/10.1016/j.paid.2019.109631
Negative cognitive appraisals that are critical in the emotional aftermath of infidelity are causality and responsibility attributions (Hall & Fincham, 2006; Shrout & Weigel, 2018). In determining causality, noninvolved partners determine who or what caused the infidelity, whereas for responsibility, noninvolved partners assess who should be held accountable and who is to blame (Fincham & Bradbury, 1992). Together, high causality and responsibility attributions indicate that individuals see their partners’ behaviors as internal, global, and stable. Those who assign causality and responsibility to their partners report more stress and exacerbated mental health issues (Gordon, Friedman, Miller, & Gaertner, 2005), possibly because the stress response eroded their ability to cope and drained their resources, ultimately harming their mental health. After an infidelity, noninvolved partners who perceive that their partners caused and should be blamed for the infidelity, might, therefore, experience more stress, resulting in poorer mental health, such as increased depression and anxiety symptoms.

Although elevated stress responses contribute to poor mental health, stress perspectives also underscore the importance of individual differences in how people appraise and react to stressors. Individual dispositions can act as protective mechanisms and promote adaptive cognitive appraisals, dampen a psychological and/or physiological stress response, and enhance outcomes after a stressful event (Lazarus & Folkman, 1984, 1987). Self-esteem—defined as a stable sense of self-liking, self-worth, and self-acceptance (Rosenberg, 1965)—has been identified as a critical dispositional buffering mechanism that promotes positive appraisals and weakens stress responses (Ford & Collins, 2010; Mikkilänsaari & Kinnunen, 2003; Yang et al., 2014). In relationships, partners with high self-esteem often have better outcomes after stress, typically because they have a diverse tool belt to manage stress (Ford & Collins, 2010; Murray, 2006). Individuals with high self-esteem are better at self-regulating, tend to see less threat from stressful events, and believe themselves to be more capable at handling stress (Carver, Scheier, & Finkel, 2000; Cast & Burke, 2002). After an infidelity, noninvolved partners who have high self-esteem may be better equipped to navigate the infidelity, reducing the harmful effects of negative cognitive appraisals and stress on mental health.

In contrast, individuals with low self-esteem tend to fare worse in times of stress. These individuals have poorer perceptions of themselves and of their coping abilities, contributing to adverse outcomes (Stinson et al., 2008). In relationships, individuals with low self-esteem are more likely to see relationship events in a negative light (Murray, 2006). After a partner’s infidelity, noninvolved partners with low self-esteem may be unable to muster the personal resources to cope with or manage the infidelity-related stress, intensifying the impact of the infidelity. Their negative self-perceptions might, therefore, heighten the stress from the infidelity and exacerbate their mental health symptoms. Thus, the mental health consequences of infidelity might hinge on the noninvolved partner’s self-esteem.

1.1. The present study

Guided by a stress perspective, this study assessed the effects of negative cognitive appraisals and infidelity-related stress on mental health, as well as the moderating effects of self-esteem, among noninvolved partners. As shown in Fig. 1a, we expected that a greater negative appraisal (i.e., high causality and responsibility attributions) would be associated with more infidelity-related stress, which in turn would heighten mental health symptoms (i.e., depression and anxiety). As depicted in Fig. 1b, we expected that self-esteem would moderate the links among negative appraisal, infidelity-related stress, and mental health, lessening the emotional and mental health severity of the infidelity.

2. Method

2.1. Participants and procedure

A total of 232 individuals were recruited from a social science subject pool at a large western university in the United States. A minimum sample size of 148 was required for bias-corrected bootstrap tests of mediation (medium indirect effect size = 0.26, power of $\beta = 0.80$, and $\alpha = 0.05$; Fritz & MacKinnon, 2007). To participate in the study, participants must have been cheated on while in a committed relationship in the past 3 months. A cutoff of 3 months was selected because we expected participants’ recollections of the infidelity and their reactions would be fresher and more accurate. Participants were mostly female (58%), Caucasian (64%), and on average 21 years old (SD = 3.91). Most participants (98%) were in dating relationships with the partner at the time the partner cheated (M relationship length = 1.76 years, SD = 1.91), and 15% of participants were still in a relationship with the partner who cheated. After reading a consent form and agreeing to participate, individuals completed an online questionnaire. The Institutional Review Board of the participating university approved all study procedures.

2.2. Measures

2.2.1. Negative appraisal

Respondents’ appraisal of the infidelity was assessed with the 6-item Relationship Attribution Measure (Fincham & Bradbury, 1992). The measure assessed causality (e.g., “I thought the reason my partner cheated on me was not likely to change”) and responsibility (e.g., “I thought my partner deserved to be blamed for cheating on me”) attributions for the infidelity. Response options ranged from 1 (disagree strongly) to 7 (agree strongly), with higher scores representing a more negative appraisal attributing causality and responsibility to the cheating partner ($M = 4.34$, $SD = 0.93$, $\alpha = 0.73$).

2.2.2. Infidelity-related stress

Stress from the infidelity was assessed using an adapted version of the 16-item Break-Up Distress Scale (Field, Diego, Pelaez, Deeds, & Delgado, 2009). Items were modified to assess stress after a partner’s infidelity rather than a breakup (e.g., “I thought about my partner cheating on me so much that it was hard for me to do things I normally do”). Response options ranged from 1 (disagree strongly) to 7 (agree strongly), with higher scores indicating more infidelity-related stress ($M = 4.85$, $SD = 1.31$, $\alpha = 0.93$).

2.2.3. Mental health

Mental health was assessed by asking participants to rate how much more or less they experienced depression and anxiety symptoms in the weeks after their partners’ infidelity compared to their typical experiences. This way, we could assess subtle changes in symptomology for all participants, including those who regularly experience mental health symptoms. Likewise, research has shown that some people experience growth and better mental health following an infidelity (Heintzelman, Murdock, Kryck, & Seay, 2014); therefore, this approach also captures changes for those who experience fewer symptoms. Response options for depression and anxiety measures ranged from 1 (this occurred much less than usual) to 7 (this occurred much more than usual) with 4 as the midpoint (no difference/about the same). Although often co-morbid, we chose to examine depression and anxiety separately because they have distinct diagnoses and symptoms.

Change in depression symptoms after the infidelity was assessed using the 20-item Center for Epidemiologic Studies Depression Scale-Revised (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004). Higher scores indicate more depression symptoms. On average, participants reported experiencing more depression symptoms after the infidelity than usual ($M = 4.62$, $SD = 1.11$, $\alpha = 0.93$).
Change in anxiety symptoms after the infidelity was measured using the 7-item Generalized Anxiety Disorder Scale (Spitzer, Kroenke, Williams, & Löwe, 2006). Higher scores indicate more anxiety symptoms. On average, participants reported experiencing more anxiety symptoms after the infidelity than they typically experienced ($M = 5.00, SD = 1.32, \alpha = 0.92$).

2.2.4. Self-esteem
The 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to measure participants’ self-esteem. Participants were asked to rate their general feelings about themselves (1 = strongly agree, 5 = strongly disagree), with higher scores indicating higher self-esteem ($M = 3.76, SD = 0.86, \alpha = 0.92$).

3. Results

3.1. Preliminary analyses
Initial correlations showed a more negative appraisal attributing causality and responsibility to the partner was associated with greater infidelity-related stress ($r = 0.37, p < .001$), depression ($r = 0.25, p < .001$), and anxiety ($r = 0.27 p < .001$). Likewise, higher infidelity-related stress was correlated with greater depression ($r = 0.68, p < .001$) and anxiety ($r = 0.67 p < .001$). Self-esteem was not related to appraisal ($r = 0.07, p = .30$) or anxiety ($r = −0.12, p = .09$); however, higher self-esteem was associated with lower infidelity-related stress ($r = −0.20, p < .003$) and depression ($r = −0.24, p < .001$). Given the effects of gender and relationship length on outcomes after infidelity (Shackelford et al., 2000; Shrout & Weigel, 2018), we also assessed their associations with the study variables. Longer relationships with the cheating partner were linked to more depression ($r = 0.14, p = .03$) and anxiety ($r = 0.17, p = .01$). No gender differences were revealed.

3.2. Main analyses
The hypotheses were tested using the SPSS PROCESS macro (Hayes, 2013). We used model 59 to assess the indirect effects of negative appraisal (X) on depression ($Y_1$) and anxiety ($Y_2$) through infidelity-related stress ($M$), as well as whether self-esteem ($W$) moderated paths within the model. Moderating (i.e., conditional) and indirect effects were tested with 95% bias-corrected confidence intervals. The indirect effects were also tested with 10,000 bootstrapped samples. Variables were mean centered for the moderation analyses, and interaction terms were computed as the product of the mean centered variables (Aiken & West, 1991). Significant moderating effects were plotted at one standard deviation above and below the mean. Given the significant correlations between relationship length with the cheating partner on both depression and anxiety, we specified relationship length as a covariate ($U$).

Fig. 1. Hypothesized models: (a) indirect effects of negative appraisal (high causality and responsibility attributions) on mental health (depression and anxiety) through infidelity-related stress, and (b) moderating effect of self-esteem on paths throughout the model.
Table 1
Model coefficients for direct and moderating effects.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Infidelity-related stress (M)</th>
<th>Depression (Y₁)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Negative appraisal (X)</td>
<td>0.53***</td>
<td>0.09</td>
</tr>
<tr>
<td>Infidelity-related stress (M)</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Self-esteem (W)</td>
<td>−0.33***</td>
<td>0.10</td>
</tr>
<tr>
<td>Negative appraisal x Self-esteem (X'W)</td>
<td>−0.21*</td>
<td>0.10</td>
</tr>
<tr>
<td>Infidelity-related stress x Self-esteem (M'W)</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Relationship length (U)</td>
<td>0.01*</td>
<td>0.00</td>
</tr>
</tbody>
</table>

\[ F(4, 196) = 13.99, p < .001 \]
\[ F(6, 196) = 31.59, p < .001 \]

Note. All coefficients are unstandardized and based on uncentered data. Relationship length is in months. M = mediator; X = independent variable; Y = dependent variable; U = covariate.

* p < .05.
** p < .01.
*** p < .001.

3.2.1. Depression as the mental health outcome

Hypotheses for depression as the mental health outcome were tested first (see Table 1 for coefficients). A more negative appraisal assigning causality and responsibility to the cheating partner was associated with greater infidelity-related stress. Infidelity-related stress, but not appraisal, was associated with increased depression symptoms. However, the indirect effect of negative appraisal on depression through infidelity-related stress was significant (indirect effect = 0.29, SE = 0.06, 95% CI [.19, .43]). That is, attributing causality and responsibility to the partner for the infidelity was associated with more infidelity-related stress, which was linked to increased depression.

The moderating effects of self-esteem on the links between appraisal, infidelity-related stress, and depression were also examined. Self-esteem altered the effects of negative appraisal on infidelity-related stress (line 1, Fig. 1b). As shown in Fig. 2, those with low self-esteem experienced more infidelity-related stress when perceiving that their partners caused and were responsible for the infidelity (conditional effect = 0.70, SE = 0.11, 95% CI [.47, .92]) compared to those with high self-esteem (conditional effect = 0.34, SE = 0.13, 95% CI [.09, .60]). Next, self-esteem did not moderate the effects of negative appraisal on depression (line 2, Fig. 1b); however, it did alter the effects of infidelity-related stress on depression (line 3, Fig. 1b). As shown in Fig. 3, infidelity-related stress had stronger effects on depression for those with low self-esteem (conditional effect = 0.62, SE = 0.06, 95% CI [.50, .75]) relative to those with high self-esteem (conditional effect = 0.42, SE = 0.06, 95% CI [.29, .54]). These results suggest that higher self-esteem buffers the effects of negative appraisal on infidelity-related stress, as well as infidelity-related stress on depression.

3.2.2. Anxiety as the mental health outcome

Next, we assessed the hypotheses for anxiety as the mental health outcome (see Table 1 for coefficients). A more negative appraisal assigning causality and responsibility to the cheating partner was related to greater infidelity-related stress, and infidelity-related stress was associated with increases in anxiety. Negative appraisal was indirectly, but not directly, linked to anxiety through infidelity-related stress (indirect effect = 0.35, SE = 0.07, 95% CI [.22, .50]). Thus, attributing causality and responsibility to the offending partner was associated with more infidelity-related stress, which subsequently heightened
Next, we also examined whether self-esteem moderated the paths within the model. Again, the link between negative appraisal and infidelity-related stress was altered by self-esteem (see Fig. 4). The effect of high causality and responsibility attributions on infidelity-related stress was stronger for those with low self-esteem (conditional effect = 0.70, SE = 0.11, 95% CI = [.48, 0.92]) than high self-esteem (conditional effect = 0.36, SE = 0.13, 95% CI = [.11, 0.61]). In addition, consistent with the model with depression as the outcome, self-esteem did not moderate the link between negative appraisal and anxiety (line 2, Fig. 1b), but it did moderate the effects of infidelity-related stress on anxiety. As show in Fig. 5, infidelity-related stress was more strongly related to anxiety among those with low self-esteem (conditional effect = 0.73, SE = 0.08, 95% CI = [.58, 0.88]) than high self-esteem (conditional effect = 0.52, SE = 0.07 95% CI = [.37, 0.67]). With depression, the results suggest that higher self-esteem buffers the effects of attributing causality and responsibility to the cheating partner on infidelity-related stress, as well as infidelity-related stress on anxiety.

4. Discussion

This study extended the literature on the aftermath of infidelity by drawing upon transactional stress theory (Lazarus & Folkman, 1984, 1987) to understand how noninvolved partners’ perceptions of the infidelity and of themselves impacted their mental health outcomes. Results revealed that a negative appraisal of the infidelity was linked to more infidelity-related stress, which, in turn, was related to exacerbated depression and anxiety symptoms. Moreover, higher self-esteem buffered the harmful effects of (a) negative appraisals on infidelity-related stress and (b) infidelity-related stress on depression and anxiety symptoms. These findings fit within and extend the literature in several ways.

First, the ties among negative appraisal, infidelity-related stress, and mental health are consistent with the relationship stress literature. Prior research has shown that negative cognitive appraisals of stress can lead to poorer relationship and health outcomes (e.g., Gordon et al., 2005; Hall & Fincham, 2006). In this study, the findings demonstrated that attributing causality and responsibility to the cheating partner contributes to heightened stress and mental health symptomology. Further, these results extend the literature by revealing that negative cognitive appraisals were indirectly, not directly, related to heightened depression and anxiety. The more noninvolved partners perceived that their partners caused and were responsible for the infidelity, the more overwhelmed they felt, possibly draining their adaptive capabilities and aggravating their depression and anxiety symptoms. Thus, this study identified infidelity-related stress as an important mechanism linking negative appraisals to poor mental health.

Second, this research revealed self-esteem as a dispositional buffering mechanism that dampened the emotional aftermath of a partner’s infidelity. In times of stress, high self-esteem can weaken the adverse effects of negative appraisals and psychological and/or physiological stress responses (Ford & Collins, 2010; Mäkikangas & Kinnunen, 2003). The findings in the present study illustrated that higher self-esteem related to less stress and fewer mental health symptoms after a partner’s infidelity. Further, the results identified self-esteem as a critical factor in moderating the associations between cognitive appraisals, infidelity-related stress, and mental health following a partner’s infidelity. Perceiving that the offending partner caused and was responsible for the infidelity had harsher effects on infidelity-related stress for noninvolved partners with low self-esteem than high self-esteem. Thus, individuals with poorer self-perceptions experienced greater stress after a partner’s infidelity, possibly due to their tendency to see relationship events as negative and having limited coping resources (Murray, 2006; Stinson et al., 2008). However, for individuals with high self-esteem, their positive self-perceptions protected against the harmful effects of negative appraisals, reducing their stress response. Likewise, infidelity-related stress had a weaker association with depression and anxiety among those with high self-esteem than those with low self-esteem. Thus, in addition to diminishing the effects of negative appraisals on stress, self-esteem also reduced mental health consequences of seeing the infidelity as stressful. Given that individuals with higher self-esteem tend to have positive self-perceptions that are resistant to threat (Kernis, 2003), they might also have more adaptive resources that help them navigate a partner’s infidelity, including their negative perceptions of the cheating partner and of their stress, compared to those with lower self-esteem. A high self-esteem likely provides these individuals with a belief that they have the ability to handle the turmoil of the infidelity and to see the future in a more positive light.

Third, this research extends the literature on personal factors that contribute to, as well as reduce, the mental health consequences of infidelity. As outlined by transactional stress theory (Lazarus & Folkman, 1984, 1987), negative cognitive appraisals elicit a stress response that can harm mental health. However, these detrimental effects are dependent upon personal factors. Our findings fit within this stress perspective in that the noninvolved partners’ negative appraisals contributed to a heightened stress response, which ultimately wore on their mental health. Nevertheless, these harmful effects were buffered by self-esteem, with noninvolved partners who have high self-esteem experiencing less stress and fewer mental health symptoms than those with low self-esteem.

Finally, there are practical implications of this research. These results inform practitioners on how perceptions give rise to mental health
symptoms after an infidelity. Practitioners can help noninvolved partners understand that their perceptions of who caused the infidelity and who should be blamed contribute to their heightened mental health symptoms, such as feeling hopeless and worrying excessively. Moreover, practitioners can leverage noninvolved partners’ protective mechanisms to improve their mental health outcomes. By drawing upon enhancing noninvolved partners’ strengths, such as their strong sense of self-worth and self-acceptance, they may recover their health more quickly.

4.1. Limitations and future directions

There are limitations that should be discussed. First, this study relied on self-report measures of stress. Future studies should assess stress via physiological measures (e.g., cortisol levels, heart rate variability) to examine psychological and physiological stress responses to a partner’s infidelity. Second, this study is cross-sectional, and, therefore, causal inferences cannot be made. Although we restricted participation to those who were cheated on in the past 3 months, recollections still might be biased. Capturing an infidelity in real time is challenging, however, future research could design a longitudinal study to assess appraisals and reactions to a partner’s infidelity in real time. Finally, the sample consisted of college students. Even though many college students report extradyadic involvement (Shackelford et al., 2000)—and infidelity is a damaging and stressful event regardless of who is cheated on—these findings should be replicated in a non-student sample.

Despite these limitations, this research offers insights for future research on infidelity’s aftermath. First, researchers should examine additional appraisals of the infidelity, including positive and negative perceptions, because some noninvolved partners experience posttraumatic growth following infidelity (Heintzelman et al., 2014). Individuals might see the infidelity as a challenge from which they can grow, promoting more adaptive perceptions of stress and better mental health. In contrast, other negative appraisals, such as self-blame, might breed more stress and mental health symptoms following the infidelity. Second, though most noninvolved partners were emotionally attached to or in love with the cheating partner, and up to a third contemplated betrayal in real time is challenging, finally, the marital discord-depression link. Future work should examine these associations among those in long-term or married relationships. There may be additional contexts, such as family or religious considerations, that contribute to their emotional and mental health. In addition, there may be other protective mechanisms, such as optimism or social support, that buffer the negative effects of the infidelity, as well as promote more adaptive appraisals and better mental health. Relatedly, though self-esteem did not moderate the infidelity—mental health link, relationship-specific self-esteem may have beneficial effects. For instance, strong relationship self-esteem may protect individuals’ mental health from the harmful effects of perceiving the partner caused and was responsible for the infidelity.

4.2. Conclusion

Taken together, this research applied a stress perspective to illustrate the mental health aftermath of a partner’s infidelity. Through a stress lens, we first demonstrated the indirect effects of attributing causality and responsibility to the cheating partner on mental health through infidelity-related stress. Second, we revealed self-esteem as a key protective mechanism in these associations, ultimately reducing the severity of a partner’s infidelity. These findings enrich the theoretical understanding of infidelity by demonstrating the direct and indirect connections among cognitive appraisals, mental health, and personal dispositions following infidelity.

Funding

The first author was supported by the Russell J. and Dorothy S. Bilinski Educational Foundation during the preparation of this manuscript.

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