The Risk for Marital Infidelity Across a Year-Long Deployment

Christina Balderrama-Durbin
Binghamton University—State University of New York

Kimberley Stanton and Douglas K. Snyder
Texas A&M University

Jeffrey A. Cigrang
Wright State University

G. Wayne Talcott
University of Tennessee Health Science Center

Amy M. Smith Slep and Richard E. Heyman
New York University

Daniel G. Cassidy
Wilford Hall Ambulatory Surgical Center, San Antonio, Texas

Military deployment can create significant relationship strain. Although most couples navigate the challenges of deployment successfully, this period may render some couples more vulnerable to adverse relationship outcomes such as infidelity due to a convergence of factors including geographic separation and reduced emotional and physical intimacy. Despite anecdotal reports of increased rates of infidelity during deployment, empirical findings are lacking. This study used a prospective design to examine the prevalence and risk factors of infidelity across the deployment cycle including a year-long deployment to Iraq. A total of 63 married male Airmen were assessed both pre- and 6–9 months postdeployment. The rate of sexual infidelity prior to deployment (21%) was commensurate with the lifetime rate of sexual involvement outside the marriage in representative community samples of men. Across the deployment period, the prevalence of sexual infidelity was strikingly high (22.6%) compared with annual community estimates (1.5–4%; Allen et al., 2005). Findings demonstrated that service members with a prior history of separation, steps toward divorce, and relationship distress prior to deployment had elevated risk for infidelity over the deployment cycle. Moreover, roughly 75% of Airmen who experienced infidelity over the deployment cycle divorced by 6–9 months postdeployment whereas only 5% of service members without infidelity divorced during this same time period. Considering well-documented adverse impacts of infidelity and divorce, the current findings may assist in identifying military couples at risk for infidelity and informing targeted prevention or early intervention strategies for these couples prior to or immediately following deployment.

Keywords: military couples, deployment, infidelity, relationship functioning, divorce

Military couples often endure extraordinary strain, especially during prolonged periods of war. Although most couples demonstrate resilience despite frequent geographic separations and deployment-related stress (Karney & Crown, 2007), a significant proportion of military couples incur both individual and relationship distress (Milliken, Auchterlonie, & Hoge, 2007), including relationship dissolution/divorce following deployment (Cigrang et al., 2014a; Hogan & Furst Seifert, 2010; Negrusa, Negrusa, & Hosek, 2014). Moreover, anecdotal reports suggest that military couples experiencing deployment have higher vulnerability to infidelity due to compound risk factors. The majority of service members are male, marry young, and undergo periods of geo-
graphic separation from their partners—characteristics that are established correlates of infidelity (Allen et al., 2005). However, there is a dearth of research examining the prevalence or risk factors of infidelity for active-duty service members during the deployment cycle. Understanding the prevalence and risk of infidelity for military couples may assist in developing and disseminating prevention and intervention strategies to strengthen these couples’ relationships.

The lifetime prevalence of infidelity in civilian community samples is high; approximately 22–25% of men and 11–15% of women report engaging in sexual infidelity in their lifetime (for a review, see Allen et al., 2005). The risk of infidelity during deployment is a commonly cited concern by service members and their partners (Knobloch & Theiss, 2012; Sayers, 2011). Nearly two thirds of spouses who had a deployed military member perceived that infidelity was common (Kaiser Family Foundation, 2004). Similarly, in a recent study of Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF) veterans, 22.2% reported that their partner had been unfaithful during their most recent deployment, and an additional 37.8% suspected infidelity during their deployment (Kachadourian, Smith, Taft, & Vogt, 2015).

Infidelity is among the most commonly cited causes of divorce for civilian couples (Amato & Previti, 2003) and is associated with a higher likelihood of divorce for those who have separated from active military service (i.e., veterans; London, Allen, & Wilmoth, 2013). A recent study using the 1992 National Health and Social Life Survey data compared veterans and nonveterans on their rates of infidelity and likelihood of divorce (London et al., 2013). Controlling for sociodemographic and early life factors (i.e., paternal and maternal education), veterans were significantly more likely than nonveterans to report infidelity; moreover, infidelity demonstrated a strong association with divorce for both the veteran and nonveteran groups. However, this study did not identify the time frame in which the infidelity occurred (e.g., prior to, during, or following military service) and the findings may not generalize to military members in recent conflicts (e.g., OEF, OIF).

The limited available evidence suggests that service members may be at increased risk for infidelity compared with those without a history of military service (London et al., 2013). Although community studies have identified a variety of individual and relationship qualities associated with infidelity (e.g., history of divorce or separation, relationship distress, and being male; Allen et al., 2005; Atkins, Baucom, & Jacobson, 2001; Mark, Janssen, & Milhausen, 2011), the sequencing of these associations has not been well explicated in either military or nonmilitary samples. The unique and prolonged stressors faced by military couples may place them at relatively greater risk for infidelity, consistent with a diathesis-stress model. A recent retrospective qualitative study of community couples found that dissatisfaction in the relationship combined with life stressors (e.g., death of a family member, financial and work pressures) were precursors to infidelity (Abrhamson, Hussain, Khan, & Schofield, 2012). Service members and their spouses, particularly during times of geographic separation and deployment, may be faced with additional strains not experienced by their civilian counterparts, thus placing them at increased risk for negative relationship outcomes such as infidelity.

The current study evaluated the rates and risk factors for infidelity in a sample of OIF active-duty service members who deployed on a year-long high-risk ground mission to Iraq. Specific aspects of relationship functioning prior to deployment such as relationship distress, prior separation, and steps toward divorce were examined as risk factors for infidelity during the deployment cycle. These common correlates of infidelity in community samples were hypothesized to be precursors to infidelity, particularly in the context of deployment.

Method

Participants and Procedures

Participants were a subset of active-duty service members from a larger longitudinal investigation of United States Air Force Security Forces (see Cigrang et al., 2014a). The original investigation assessed a variety of risk and protective factors across a year-long deployment to Iraq. Two detachments of Airmen (combined N = 318) were tasked to train Iraqi police, a high-risk mission that required patrolling in communities with high insurgent presence; they deployed in two consecutive, 1-year deployment cycles during 2009 and 2010. The research team met with the Airmen at their predeployment training site 30 days prior to their deployment, again while they were deployed in Iraq, and finally 6–9 months postdeployment. The current study was restricted to responses provided in the pre- and postdeployment periods.

Responses from 164 Air Force service members were successfully matched across the deployment cycle. The 164 Airmen whose pre- and postdeployment assessments could be matched did not differ from the larger cohorts of 318 Airmen assessed prior to deployment or the 204 Airmen assessed postdeployment on any measure of demographic characteristics, individual emotional or behavioral functioning, or intimate relationship functioning, including prevalence of infidelity (all ps > .47). Of the 164 matched service members, 68 reported being married at predeployment. Of these, one case was excluded from further analysis due to missing relationship functioning data at predeployment. Four of the remaining 67 were female service members, and were also excluded from analyses to remove potential variance due to gender considering the restricted sample size. The resulting sample for the current investigation included 63 married male Airmen whose data were analyzed for the prevalence of infidelity during the deployment cycle. All study procedures were approved by the Wilford Hall Ambulatory Surgical Center Institutional Review Board.

The average age of these married Airmen was 28.97 years (SD = 6.50, range 20–46). The mean years of education was 13.84 (SD = 1.73, range 12–20), with over half (61%) of the service members graduating from high school or earning a GED and the remaining service members earning an associate’s degree or higher. The average duration of all prior deployments combined was 14.74 months (SD = 10.76, range 1–69), with a mean of 13.16 months since the last deployment (SD = 8.30, range 3–39). Nearly half of the Airmen (45%) had deployed at least twice previously in an OEF/OIF mission. A majority (71%) of participants were Caucasian, followed by 10% African American, 11% Hispanic, 3% Asian, and 2% Native American. On average, Airmen had been married for 6.40 years (SD = 5.58, range 1–27 years). A majority of Airmen (61%) had one or more children (M = 1.30, SD = 1.30).
Measures

Prevalence of infidelity. Six items assessed the prevalence and nature of infidelity in the Airmen’s marriage prior to and throughout the deployment cycle. At predeployment, Airmen indicated whether they or their spouse had ever had an affair while in the marriage (e.g., “been emotionally or physically intimate with someone else”), and specified the type of outside involvement they or their partner had engaged in (i.e., “Feelings of emotional closeness or ‘special friendship,’” “Physical closeness of any kind (for example, touching, hugging, kissing),” “Sexual contact other than intercourse (for example, genital touching or oral sex),” and “Sexual intercourse”). Airmen also indicated whether the outside involvement occurred during their service in the military. At postdeployment, Airmen indicated whether they or their spouse had had an affair either during or since returning from their most recent deployment, and again specified the type of involvement.

Relationship distress. The Marital Satisfaction Inventory—Brief form (MSI-B) is a 10-item, true-false, screening measure designed to identify intimate relationship distress (Whisman, Snyder, & Beach, 2009). Two items from five scales from the Marital Satisfaction Inventory—Revised (Snyder, 1997) including Global Distress, Time Together, Sexual Dissatisfaction, Affective Communication, and Problem-Solving Communication were selected for this measure based on item-scale correlations. Scores range from 0–10. Using a cut-score of 4 for discriminating distressed from nondistressed couples, the MSI-B exhibits high sensitivity and specificity (.87 and .84, respectively). In the original standardization sample, the MSI-B had good temporal reliability (6-week \( r = .79 \)) and internal consistency (\( \alpha = .81 \); mean interitem \( r = .31 \)). For the 63 married Airmen who completed measures in this study, the MSI-B demonstrated good internal consistency at predeployment (\( \alpha = .89 \); mean interitem \( r = .47 \)) and at postdeployment (\( \alpha = .93 \); mean interitem \( r = .56 \)). The mean level of endorsement of relationship distress at predeployment was 2.76 (SD = 3.16) and at postdeployment was 4.65 (SD = 3.81).

Steps toward relationship dissolution. The Marital Status Inventory (Weiss & Cerreto, 1980) is a true-false measure that assesses specific cognitive and behavioral steps toward separation or divorce. Of the 14 items comprising the original measure, five were retained in this study. Airmen indicated whether they had had thoughts of divorce or separation (items examined both the frequency and the content of the thoughts), discussed divorce or separation with someone other than their partner (e.g., a friend, counselor, or spiritual advisor), or separated from their partner prior to or since returning from deployment. These five items demonstrated good internal consistency at predeployment (\( \alpha = .89 \); mean interitem \( r = .61 \)) and at postdeployment (\( \alpha = .85 \); mean interitem \( r = .54 \)). The mean level of endorsement at predeployment was 1.33 (SD = 1.82) and at postdeployment was 1.93 (SD = 1.89).

Status of relationship. One item assessed change in status of the Airmen’s marriage following the deployment cycle (e.g., “filed for divorce”). If a change in status of the relationship was reported, Airmen were asked to indicate who initiated the divorce (Airman or spouse).

Data Analytic Strategy

Descriptive analyses were conducted to examine the pre- and postdeployment prevalence of emotional and physical infidelity. Rates of infidelity were reported as percentages out of the valid number of responses. Additionally, to better understand the nature of the infidelity, Airmen who reported experiencing an affair in their relationship at any time point were further examined for the percentage of the affairs that included sexual intercourse, and described in terms of percentage of affairs committed by the service member, the nondeployed spouse, or both partners from the perspective of the service member.

Predeployment predictors of infidelity were examined using independent-samples \( t \) tests comparing means of continuous variables (i.e., relationship distress and steps toward divorce) for service members who reported infidelity compared with those who reported no infidelity. Prior separation was evaluated using Pearson’s chi-square test for independence due to the categorical nature of both the predictor and the criterion variables. Finally, change scores were derived for relationship distress and steps toward divorce by subtracting predeployment scores from postdeployment scores, and examining whether such change predicted infidelity.

Results

Pre- and Postdeployment Rates of Infidelity

Predeployment and postdeployment rates of infidelity were examined descriptively. Prior to deployment, 28.6% (\( n = 18 \) of 63) of married service members reported experiencing an emotional or physical affair over the course of their current marriage. A majority of these affairs (83.3%, \( n = 15 \) of 18) occurred during military service and nearly three fourths (72.2%, \( n = 13 \) of 18) included sexual intercourse. Of the 18 Airmen who experienced infidelity prior to deployment, 50.0% (\( n = 9 \) of 18) were cases in which infidelity was engaged in by the service member, 22.2% (\( n = 4 \) of 18) in which infidelity was reportedly engaged in by the spouse, and 27.8% (\( n = 5 \) of 18) in which both the service member and their spouse engaged in infidelity.

At postdeployment, an equal percentage of these Airmen (28.6%, \( n = 18 \) of 63) reported the occurrence of infidelity in the relationship (either emotional or physical) during or since their return from Iraq. Over a third (38.9%, \( n = 7 \) of 18) had not experienced infidelity in their marriage prior to their most recent deployment. Thus, by 6–9 months postdeployment, 39.7% (\( n = 25 \) of 63) of the total sample had experienced at least one occurrence of infidelity in their current relationship. An additional 9.8% (\( n = 6 \) of 63) of Airmen reported that they were unsure about their spouse’s fidelity since the onset of deployment. A majority of the affairs (77.8%, \( n = 14 \) of 18) included sexual intercourse. Of the service members who experienced infidelity, 44.4% (\( n = 8 \) of 18) were engaged in by the service member, 33.3% (\( n = 6 \) of 18) were reportedly engaged in by the spouse, and 16.7% (\( n = 3 \) of 18) were cases in which both the service member and their spouse participated in affairs. (One Airman failed to identify the type of infidelity [i.e., emotional or sexual] or which partner engaged in the infidelity.)
Concurrent Indicators of Predeployment Infidelity

Predeployment demographic and relationship functioning correlates of previous infidelity were evaluated. Potential demographic correlates of predeployment infidelity were examined including service member’s age, years of education, number of times deployed in support of OEF/OIF, combined months of prior deployments, number of years married, number of children, and prior separation within the current relationship. All predeployment variables were nonsignificant.

Relationship functioning correlates of predeployment infidelity status were also evaluated. Service members with prior infidelity reported greater predeployment relationship distress (M = 4.89, n = 18) compared with those with no infidelity (M = 1.91, n = 45, t(61) = 3.71, p < .01). Additionally, those who had experienced prior infidelity reported significantly greater steps toward divorce at predeployment (M = 2.72, n = 18) compared with those with no prior history of infidelity in the relationship (M = 0.78, n = 45, t(61) = 3.62, p < .01).

Predictors of Infidelity Across Deployment

Predeployment demographic and relationship functioning predictors of infidelity either during or postdeployment were examined. Airmen who reported being “unsure” about their spouse’s fidelity during or after their deployment (n = 6) were excluded from the analyses to reduce potential variance related to suspected infidelity due to the small sample size. Demographic characteristics examined at predeployment (as described above) did not predict incidence of infidelity during the deployment cycle with the exception of previous separations in the current relationship. Those who reported at least one separation in the current relationship prior to deployment were 4.6 times more likely to experience later infidelity compared with those with no separation history (χ²(1, n = 54) = 5.77, p < .05). Additionally, Airmen who reported a history of infidelity prior to deployment were 8.1 times more likely to experience another infidelity during deployment compared with those without prior incidence (χ²(1, n = 55) = 11.43, p < .01). (Refer to Table 1 for a summary of chi-square results and odds ratios.)

Relationship factors at predeployment predicting subsequent infidelity included relationship distress and steps toward divorce (for a summary of results refer to Table 2). Service members who reported infidelity during or immediately following their recent deployment reported significantly greater relationship distress at predeployment (M = 4.83, n = 18) compared with those who did not (M = 1.76, n = 37, t(53) = 3.88, p < .01). Moreover, service members who reported later infidelity were significantly more likely to have demonstrated greater steps toward divorce at predeployment (M = 2.83, n = 18) compared with those without later infidelity (M = 0.68, n = 37, t(53) = 4.02, p < .01). Changes in the propensity toward divorce from pre- to postdeployment did not distinguish service members who experienced later infidelity. In contrast, increases in relationship distress from pre- to postdeployment were significantly greater for those who experienced later infidelity (M = 3.25, n = 16) compared with those who did not (M = 0.97, n = 35, t(49) = 2.68, p < .01).

Infidelity and Divorce

Finally, the co-occurrence of postdeployment infidelity and divorce was evaluated. Of the Airmen who experienced infidelity during or since their deployment, a majority (75.0%) reported divorcing their spouse—in contrast to only two Airmen (5.4%) who did not experience infidelity during this same time period. The prevalence of divorce differed significantly between those who did or did not report infidelity during or after deployment (χ²(1, n = 53) = 27.83, p < .001).

Discussion

Despite the unique challenges experienced by military couples (e.g., frequent separations and deployment-related stress), a majority demonstrate relationship resilience across deployment (Karney & Crown, 2007). For some couples, particularly those with existing vulnerabilities (e.g., relationship distress, prior separation, previous infidelity), however, these stressors and challenges may become damaging to their relationship, consistent with a diathesis-stress model. In the present study, nearly 30% of the sample had experienced an emotional or physical affair at some point earlier in their marriage. The percentage of sexual infidelity (20.6%) prior to deployment in the present sample was commensurate with lifetime rates of infidelity reported by partnered males (21–25%) in large representative community samples (Allen et al., 2005). Over the course of a year-long deployment and immediate (6–9 months) postdeployment period, 22.6% of the sample reported the occurrence of sexual infidelity in their marriage. This prevalence is remarkably higher than the annual prevalence of sexual infidelity (1.5–4% overall, or approximately 6% for men age 20–40) in civilian estimates but virtually identical to rates reported in a recent military sample (22.2%; Kachadorian et al., 2015). For a substantial percentage of those who experienced infidelity during

### Table 1

**Prospective Risk Factors of Infidelity Across the Deployment Cycle Examining Odds Ratios**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Chi-square</th>
<th>df</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predeployment prior separation</td>
<td>5.77**</td>
<td>1</td>
<td>4.59</td>
</tr>
<tr>
<td>Predeployment infidelity status</td>
<td>11.43**</td>
<td>1</td>
<td>8.12</td>
</tr>
<tr>
<td>Risk for divorce</td>
<td>27.83**</td>
<td>1</td>
<td>52.50</td>
</tr>
</tbody>
</table>

**Note:** df = degrees of freedom.

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

### Table 2

**Prospective Risk Factors of Infidelity Across the Deployment Cycle**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Infidelity</th>
<th>No infidelity</th>
<th>t test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predeployment relationship distress</td>
<td>4.83</td>
<td>2.83</td>
<td>1.76</td>
</tr>
<tr>
<td>Predeployment steps toward divorce</td>
<td>2.83</td>
<td>2.09</td>
<td>0.68</td>
</tr>
<tr>
<td>Change in relationship distress</td>
<td>3.25</td>
<td>3.04</td>
<td>0.97</td>
</tr>
<tr>
<td>Change in steps toward divorce</td>
<td>1.19</td>
<td>2.04</td>
<td>0.31</td>
</tr>
</tbody>
</table>

**Note.** M = mean; SD = standard deviation.

**p < .01.**
or since deployment (nearly 40%), this was the first occurrence of infidelity in their marriage.

Findings suggest that relationship distress prior to deployment may render military couples more vulnerable to infidelity. Indeed, Airmen in the present study who experienced a greater increase in relationship distress were also more likely to experience infidelity compared with those who did not. Predeployment relationship distress predicted lower frequency of communication during deployment in a previous study using this same sample (Cigrang et al., 2014b). Such reduced communication, combined with disruption of physical intimacy, may render either partner more vulnerable to seeking emotional or physical closeness with someone outside their primary relationship. Thus, reducing relationship distress and enhancing couple intimacy prior to deployment, as well as fostering more effective means of communication during deployment, may promote a more adaptable relationship milieu to withstand the stresses and strains inherent to deployment and reintegration. Relationship enhancement programs promoting communication skills building and enhancement of relationship quality and intimacy have been designed and adapted for military couples (e.g., Allen, Rhoades, Markman, & Stanley, 2015; Heyman et al., 2015). One such program, the Prevention and Relationship Education Program for Strong Bonds, has demonstrated greater gains in relationship satisfaction for couples who have experienced prior infidelity (Allen et al., 2015).

Consistent with previous findings in a veteran population (Lond et al., 2013), active-duty Airmen in the current sample who experienced infidelity during the most recent deployment cycle were more likely to dissolve their marriage. Moreover, those who had previously separated or experienced infidelity in their marriage prior to deployment were particularly vulnerable to the later occurrence of infidelity. The majority (nearly 75%) of married Airmen who experienced infidelity during or following deployment divorced by 6–9 months postdeployment. By comparison, only 5% of service members without infidelity divorced during this same time period. Infidelity may serve as the catalyst for divorce among already distressed couples.

Limitations to the current investigation bear noting. The sample size, particularly the number of those who experienced infidelity (n = 18), is relatively small, potentially impacting the stability and generalizability of the results. Data were restricted to anonymous service members' reports, and collateral information from spouses was not available. Moreover, due to lack of adequate representation, female service members were excluded from the present study. Previous research suggests that the motivations, impact, and rates of infidelity likely differ between men and women (for a review, see Allen et al., 2005). Thus, future research on infidelity among military couples would benefit from including both men and women. Previous research suggests that Air Force personnel may be at increased risk for divorce following deployment compared with other branches of the military (Karney & Crown, 2007); thus, findings related to relationship functioning derived from this particular branch may not generalize to the military as a whole. As such, future research on infidelity and interventions designed to mitigate it would benefit from including service members from multiple military occupational specialities, branches, and ranks to enhance the generalizability of the findings and provide a more comprehensive understanding of the prevalence and predictors of infidelity.

Future studies should compare military couples across the deployment cycle with couples not experiencing deployment over the same time period on measures of intimate relationship functioning, including infidelity. Current study findings cannot isolate the deployment itself as a risk factor for infidelity. Moreover, studies should explore the unique deployment-related stressors that may render couples more vulnerable to an affair. In the current study, neither exposure to combat-related events nor posttraumatic stress symptoms predicted increased risk for infidelity.1 It could be that either assessment of other specific stressors (e.g., those related to couple distress such as communication) or a larger sample (increasing power) might provide additional findings suggesting possible points of intervention.

This study is the first to examine prospective relationship indicators and rates of infidelity across the entirety of the deployment cycle. The design permitted identification of key predeployment risk factors of later infidelity such as prior separation, steps toward divorce, heightened relationship distress, and prior incidence of infidelity. Detection of risk may aid in prevention or early intervention resources for military couples prior to deployment. Existing prevention and intervention programs for military couples (e.g., Heyman et al., 2015) offer promising relationship enhancement strategies targeting relevant areas of relationship functioning such as couple communication, emotional and physical intimacy, as well as preparation for deployment and reintegration. Given the linkage between infidelity and divorce, and the detrimental impact of both on individual and relationship functioning, it is critical that prevention and intervention strategies identify military couples at risk for infidelity at various junctures throughout the deployment cycle and provide specific mechanisms for promoting relationship resilience.

1 Please contact the corresponding author, Christina Balderrama-Durbin, for further details regarding these null findings.

References


Received April 24, 2016
Revision received November 16, 2016
Accepted November 27, 2016