Predicting Sexual Infidelity in a Population-Based Sample of Married Individuals

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Predictors of 12-month prevalence of sexual infidelity were examined in a population-based sample of married individuals ($N = 2,291$). Predictor variables were organized in terms of involved-partner (e.g., personality, religiosity), marital (e.g., marital dissatisfaction, partner affair), and extradyadic (e.g., parenting) variables. Annual prevalence of infidelity was 2.3%. Controlling for marital dissatisfaction and demographic variables, infidelity was predicted by greater neuroticism and lower religiosity; wives' pregnancy also increased the risk of infidelity for husbands. In comparison, self-esteem and partners' suspected affair were predictive of infidelity when controlling for demographic variables but were not uniquely predictive of infidelity when also controlling for marital dissatisfaction. Religiosity and wives' pregnancy moderated the association between marital dissatisfaction and infidelity.

Keywords: affair, extramarital, infidelity, marriage, pregnancy

Couples therapists view extramarital affairs as one of the most damaging relationship events and one of the most difficult problems to treat in couples therapy (Whisman, Dixon, & Johnson, 1997). Further, a review of ethnographic accounts of conjugal dissolution across 160 societies found that infidelity was the single most common cause of marital dissolution (Betzig, 1989). As such, sexual infidelity constitutes a significant problem for many couples.

There has been a steady but small stream of research examining predictors of extramarital or extradyadic sex over the last 20 years. This research has recently been reviewed by Allen et al. (2005), who proposed a multidimensional organizational framework for understanding the development and sequelae of extramarital affairs, which include sexual infidelity. Most pertinent to the current study is the temporal dimension, which reflects the view that engaging in and responding to extramarital sexual involvement is a process. The first stage along the temporal dimension consists of predisposing factors, which are character-istics that exist prior to infidelity. The authors argued that predisposing factors should be evaluated on four dimensions: The involved partner, the spouse, the marriage, and the larger context beyond the relationship. Allen et al. suggested that predisposing factors give rise to approach and precipitating factors, which culminate in an individual engaging in infidelity. Thus, identifying predisposing factors is critical in understanding the occurrence of infidelity and identifying at-risk populations. As discussed by Markman (2005), knowing who is at greatest risk for infidelity may have important implications for targeting at-risk populations and tailoring the content of marriage-enrichment programs.

Involved-partner predisposing factors may include, among other things, individual difference variables, such as personality traits. For example, higher neuroticism appears to be a predisposing factor that increases one's perceived likelihood of engaging in an affair (Buss & Shackelford, 1997), and higher self-esteem has been found among men who had engaged in infidelity in the prior year (Buunk, 1980). However, existing research on personality characteristics was conducted with nonrepresentative samples, and findings regarding neuroticism were based on estimates of susceptibility rather than on actual sexual behavior. In addition to personality, religion appears to be an important involved-partner variable that serves as a constraint on sexual infidelity (e.g., Buunk, 1980; Choi, Catania, & Dolcini, 1994).

Marital variables that may be important for understanding infidelity include marital dissatisfaction, which has been the most widely identified marital predisposing factor associated with infidelity. There is substantial empirical support

that marital dissatisfaction is strongly related to engaging in extramarital sexual behaviors (e.g., Atkins, Baucom, & Jacobson, 2001; Buunk, 1980; Treas & Giesen, 2000). Indeed, one study examining extramarital sex and marital happiness over a 17-year period found that infidelity was both a cause and a consequence of marital discord (Previti & Amato, 2004). In addition to marital dissatisfaction, clinical observations have noted that a partner's affair may spur the other partner to engage in a revenge affair (Lusterman, 1998), although it has yet to be empirically evaluated whether suspicion of partner infidelity is associated with increased likelihood of engaging in infidelity oneself.

With regard to extradyadic predisposing factors, the role of being a parent may be important for understanding infidelity. There is a documented drop in marital satisfaction once children are born (Twenge, Campbell, & Foster, 2003), which may place people at risk for seeking or accepting attention from infidelity partners. Similarly, it has been suggested that the transition to parenthood is a high-risk time for infidelity (Pittman, 1989). However, to date, no published studies have evaluated whether pregnancy per se is associated with risk of infidelity or whether probability of infidelity is associated with the broader aspect of presence of children.

In summary, the current study was designed to evaluate potential predisposing factors of past-year infidelity in a population-based sample of married individuals. In addition, given that marital dissatisfaction is one of the most consistent predictors of infidelity, and further given that marital dissatisfaction has been shown to covary with many predictors of infidelity, we were interested in evaluating whether the assessed variables would predict infidelity over and above their shared association with marital dissatisfaction. Furthermore, we evaluated whether the predictors interacted with marital dissatisfaction in predicting infidelity to determine whether the predictors exerted their effect, in part, by moderating the magnitude of the association between dissatisfaction and infidelity. Support for the importance of moderation effects comes from findings that marital dissatisfaction interacts with religious behavior in predicting lifetime probability of infidelity (Atkins et al., 2001).

Method

Participants

Participants were drawn from the National Comorbidity Survey (Kessler et al., 1994), a nationally representative survey based on a stratified, multistage area probability sample of persons aged 15–54 years. The National Comorbidity Survey sample included 2,291 individuals who were married and had been married for more than 12 months (i.e., the time period used for defining infidelity). The sample consisted of 1,250 (54.6%) women and 1,041 (45.4%) men with a mean age of 37.14 years ($SD = 8.60$). The racial/ethnic distribution was 83.8% White, 5.7% Black, 7.9% Hispanic, and 2.5% other. Participants had been married an average of 12.48 years ($SD = 8.99$).

Measures

Sexual infidelity. A section on health included the item "How many people (either men or women) have you had sexual intercourse with in the past 12 months?" People who responded as having had sex with more than one person were coded as having engaged in infidelity, a definition that has been used in prior studies (e.g., Choi et al., 1994; Leigh, Temple, & Trocki, 1993).

Personality characteristics. Neuroticism was measured by a subset of Goldberg's (1992) unipolar Big-Five factor markers ($\alpha = .83$), which were derived through extensive factor analytic research on personality trait markers. Self-esteem was measured by a short form of Rosenberg's (1965) scale ($\alpha = .80$). Items for both measures were rated on 4-point scales.

Religion. Religiosity was based on four questions assessing (a) the importance of religious or spiritual beliefs in daily life, (b) frequency of attending religious services, (c) whether participants sought spiritual comfort during problems or difficulties, and (d) whether participants asked themselves what God would want them to do when making decisions in daily life. Responses to these four questions were first standardized and then combined to form a composite measure ($\alpha = .87$), and a constant was added so that all values were positive.

Marital functioning. The assessment of marital dissatisfaction was based on two items: "All in all, how satisfied are you with your relationship—very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?" and "Overall, would you rate your relationship as excellent, good, fair, or poor?" Because the two items were highly correlated ($r = .71$, $p < .001$), an unweighted composite measure was derived by taking the mean of the two items. Partner's affair was based on the item "[My husband/wife] has extramarital affairs—often, sometimes, rarely, or never." Responses were dichotomized as *never* (0) versus any other response (1).

Parenting variables. Standard demographic questions were used to assess presence of children and wives' pregnancy status (which was evaluated only for husbands).

Data Analysis

We based our analyses on weighted data and conducted them by using the Taylor series linearization method in SUDAAN (Research Triangle Institute, 2001), a statistical program that incorporates sample design into the data analysis. Because we were interested in identifying variables that were incrementally related to infidelity over variance accounted for by demographics, we statistically controlled for gender, age, race/ethnicity (White, Black, Hispanic, other), and education, as these are associated with infidelity (Allen et al., 2005).

Results

The 12-month prevalence of sexual infidelity was 2.33% ($SE = 0.35$). To evaluate the association between predictors

and prevalence of infidelity (Model 1), we regressed infidelity on each predictor variable by using logistic regression analyses; separate analyses were conducted for each predictor. Regression coefficients, odds ratios, and 95% confidence intervals from these analyses are presented in Table 1. After controlling for demographic variables, infidelity was significantly and positively associated with neuroticism, marital dissatisfaction, and suspicion of a partner affair and was significantly and negatively associated with self-esteem and religiosity. Furthermore, compared with husbands whose wives were not pregnant, infidelity was more likely among husbands whose wives were pregnant.

To evaluate whether the predictor variables were associated with sexual infidelity over and above any shared association with marital dissatisfaction (Model 2), we recomputed the logistic regression analyses, controlling for demographic variables and marital dissatisfaction. Results from this analysis are presented in Table 1. Results indicated that sexual infidelity was uniquely predicted by neuroticism, religiosity, and, for husbands, wives' pregnancy status.

Finally, to evaluate whether any of the predictor variables moderated the association between marital dissatisfaction and sexual infidelity, we entered Dissatisfaction × Predictor interaction terms into each regression equation after entering the simple effects of marital dissatisfaction and the predictor variable; continuous variables were mean deviated prior to computation of the interaction term. The association between marital dissatisfaction and infidelity was moderated by religiosity ($b = -0.44$, $p < .05$) and wives' pregnancy status ($b = 3.34$, $p < .05$). For the interaction involving religiosity, the regression coefficients for religiosity and marital dissatisfaction had opposite signs, which is indicative of a buffering interaction (Cohen, Cohen, West, & Aiken, 2003). The difference in the predicted odds of infidelity between people low versus high (± 1 standard deviation) in marital dissatisfaction was greater for people low in religiosity (1.3% vs. 5.3%) compared with people high in religiosity (0.9% vs. 1.5%). For the interaction involving pregnancy, the signs for the coefficients for the simple effects and the interaction term were all positive,

indicating an enhancing interaction (Cohen et al., 2003). The difference in predicted odds of infidelity between husbands low versus high in dissatisfaction was greater for husbands whose wives were pregnant (0.2% vs. 11.9%) compared with those whose wives were not pregnant (1.2% vs. 2.8%).

Discussion

Results indicated that after controlling for demographic variables, infidelity was predicted by greater marital dissatisfaction, which is consistent with prior studies (e.g., Atkins et al., 2001; Treas & Giesen, 2000). Furthermore, infidelity was predicted by lower self-esteem and suspicion that one's partner had had an affair. However, when marital dissatisfaction was entered into the equations predicting infidelity, these two variables were no longer significantly related to infidelity. This pattern of results suggests that marital dissatisfaction mediates the association between these two variables and the probability of infidelity. These findings underscore the importance of multivariate analyses in evaluating predictors of infidelity. Had marital dissatisfaction not been included in the prediction, it would have been concluded that new predictors of infidelity had been identified, whereas a more correct interpretation appears to be that these variables are not predictive of infidelity over and above another established risk factor.

In comparison, there were three variables that accounted for unique variance in predicting infidelity over that accounted for by marital dissatisfaction and demographic variables. First, neuroticism was significantly and positively associated with infidelity, which is similar to what has been reported regarding an association between neuroticism and perceived likelihood of engaging in an affair (Buss & Shackelford, 1997). Because the current assessment of neuroticism was based on adjective markers of the personality trait, future research is needed to identify the specific aspects of neuroticism that increase probability of infidelity. For example, it may be that impulsivity is the aspect of neuroticism that gives rise to increased likelihood of infidelity, as it has been hypothesized that people with high

Table 1
Descriptive Statistics and Results From Logistic Regression Analyses Predicting Annual Prevalence of Infidelity

Predictor variable	Mean	SD	%	Model 1[a]			Model 2[b]		
				b	OR	95% CI	b	OR	95% CI
Involved-partner factors									
Neuroticism	1.88	0.52		1.11[***]	3.05	1.99, 4.67	0.74[**]	2.10	1.29, 3.41
Self-esteem	3.50	0.57		-0.52[**]	0.60	0.42, 0.85	-0.14	0.87	0.60, 1.25
Religiosity	3.00	0.85		-0.66[**]	0.52	0.34, 0.78	0.66[**]	0.52	0.33, 0.80
Marital factors									
Marital dissatisfaction	1.40	0.55		1.10[***]	2.99	2.13, 4.19			
Partner affair			4.15	1.16[*]	3.18	1.30, 7.77	0.40	1.50	0.51, 4.44
Extradyadic factors									
Child(ren)			87.76	0.99	2.68	0.89, 8.04	0.75	2.12	0.71, 6.37
Wife pregnant			4.05	1.49[*]	4.43	1.26, 15.60	1.53[*]	4.64	1.35, 15.94

[a] Controlling for gender, age, race/ethnicity (White, Black, Hispanic, other), and education.   [b] Controlling for demographic variables and marital dissatisfaction. OR = odds ratio; 95% CI = 95% confidence interval.
[*] $p < .05$.   [**] $p < .01$.   [***] $p < .001$.

impulsivity and low dependability may be more likely to act on sexual opportunities, may have a higher sex drive, or may exude more sexuality, thus eliciting more sexual opportunities (Buss & Shackelford, 1997).

The second variable that predicted infidelity over and above the effects of marital dissatisfaction and demographic variables was religiosity, which was negatively associated with infidelity. Moreover, the results from the moderation analyses suggest that this association is qualified by level of marital dissatisfaction insofar as religiosity appears to act as a protective factor that weakens the association between marital dissatisfaction and infidelity. Atkins et al. (2001) obtained similar results with respect to lifetime prevalence of infidelity, suggesting that religion is a reliable moderator of the association between marital dissatisfaction and infidelity. Future studies should seek to identify how being religious serves as a buffering mechanism against infidelity in the context of marital dissatisfaction. It is likely that the unfavorable attitudes and the strict prohibition of this behavior characteristic of most religions account at least in part for this association, and it would be important to determine how such prohibitions translate into attitudes and behaviors of religious individuals. Identifying these factors could be important, as it may be possible to promote such attitudes and behaviors and thereby mitigate the effects of marital dissatisfaction on infidelity among people irrespective of their level of religiosity.

The third variable that predicted probability of infidelity over and above the effects of marital dissatisfaction and demographic variables was wives' pregnancy status: Compared with husbands whose wives were not pregnant, husbands whose wives were pregnant were more likely to have engaged in sexual infidelity during the past 12 months. Given that presence of children was not predictive of infidelity, this finding suggests that the effects of pregnancy on propensity for infidelity may not be due to strains inherent in the parenting role, although this suggestion requires more direct evaluation. This effect was further qualified by husbands' level of marital dissatisfaction: The effect of wives' pregnancy status on probability of infidelity was greater for husbands who were dissatisfied with their marriage than for husbands who were satisfied. As with the other predictors, identifying mechanisms of this effect would increase understanding of infidelity. For example, it may be that declines in sexual activity and in a woman's sexual interest over the course of pregnancy (von Sydow, 1999) contribute to increased likelihood of husbands' infidelity, particularly for those who are already unhappy with their marriage. One implication of the current finding regarding this high-risk group is that intervention programs designed to ease the transition to parenthood (e.g., Cowan & Cowan, 1995) could incorporate discussions about risks of infidelity and the ways of reducing its likelihood, which may be helpful in reducing infidelity during this period of elevated risk (cf. Markman, 2005).

Predisposing factors such as those examined in this study are important for identifying individuals and relationships at risk, which may help in preventing and treating infidelity (cf. Allen et al., 2005; Markman, 2005). Future research is needed to identify predisposing factors to other types of infidelity (e.g., emotional infidelity) as well as to examine how such factors contribute to the specific approach and precipitating factors (Allen et al., 2005) that culminate in an individual's engaging in infidelity. Finally, as with much of the research on predictors of infidelity, the current study is limited insofar as the predictor variables were not theoretically derived, and future research would benefit from theory-driven research on predictors of infidelity.

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