ORIGINAL PAPER

Infidelity in Heterosexual Couples: Demographic, Interpersonal, and Personality-Related Predictors of Extradyadic Sex

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Received: 4 September 2009/Revised: 10 December 2010/Accepted: 12 February 2011 © Springer Science+Business Media, LLC 2011

Abstract This study aimed to assess the relative importance of demographic, interpersonal, and personality factors in predicting sexual infidelity in heterosexual couples. A total of 506 men (M age = 32.86 years, SD = 10.60) and 412 women (Mage = 27.66 years, SD = 8.93), who indicated they were in a monogamous sexual relationship, completed a series of questionnaires, including the Sexual Excitation/Inhibition (SES/SIS) scales and the Mood and Sexuality Questionnaire, and answered questions about, among others, religiosity, education, income, relationship and sexual satisfaction, and sexual compatibility. Almost one-quarter of men (23.2%) and 19.2% of women indicated that they had "cheated" during their current relationship (i.e., engaged in sexual interactions with someone other than their partner that could jeopardize, or hurt, their relationship). Among men, a logistic regression analysis, explaining 17% of the variance, revealed that a higher propensity of sexual excitation (SES) and sexual inhibition due to "the threat of performance concerns" (SIS1), a lower propensity for sexual inhibition due to "the threat of performance consequences" (SIS2), and an increased tendency to engage in regretful sexual behavior during negative affective states were all significant predictors of infidelity. In women, a similar regression analysis explained 21% of the variance in engaging in infidelity. In addition to SIS1 and

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Published online: 11 June 2011

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SIS2, for which the same patterns were found as for men, low relationship happiness and low compatibility in terms of sexual attitudes and values were predictive of infidelity. The findings of this study suggest that, for both men and women, sexual personality characteristics and, for women, relationship factors are more relevant to the prediction of sexual infidelity than demographic variables such as marital status and religiosity.

Keywords Infidelity · Extradyadic sex · Sexual excitation · Sexual inhibition · Sexual behavior

Introduction

Sexual infidelity, which can be defined as extradyadic sex within the context of a monogamous relationship, is considered to be among the most significant threats to the stability of adult relationships, including marriage. For example, Betzig (1989) compared 160 cultures and found that infidelity was the single most cited cause of divorce. In Western countries, it has been estimated that between 25 and 50% of divorcees cited a spouse's infidelity as the primary cause of the divorce (Kelly & Conley, 1987). Research on infidelity in heterosexual relationships suggests that around one-third of men and one-quarter of women may engage in extradyadic sexual relationships at least once in their lives (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). Laumann, Gagnon, Michael, and Michaels (1994) and Wiederman (1997), both using nationally representative samples, found that approximately 20–25% of men and 10-15% of women reported engaging in extramarital sex during their marriage. However, inconsistencies in how relationships (e.g., whether monogamous by agreement, marital, etc.) and infidelity (e.g., whether infidelity includes one-time interactions, long-term affairs, or both) are defined, and differences across samples (e.g., whether relying on married couples or



focusing on other types of relationships), make it difficult to arrive at reliable estimates. In addition, given the negative connotations of words like "infidelity" and "cheating," these behaviors can be expected, although to an unknown degree, to be underreported. According to some studies, the vast majority of men and women believe that it is "always" or "almost always" wrong for a married person to have sex with someone other than his or her partner (e.g., Smith, 1994). Yet, the existing literature suggests that extramarital or, more generally, extradyadic sex in supposedly monogamous relationships, is common.

Due to the potentially negative impact infidelity may have on relationship stability and individual well-being, many researchers have attempted to delineate factors which place individuals and couples at risk for infidelity. These factors have largely fallen into three categories: demographic, interpersonal, and intrapersonal. In the brief review that follows, unless otherwise stated, infidelity or extradyadic sex refers to a partner (or both partners) having sexual intercourse with someone outside the relationship.

Demographic Factors

Although studies exploring demographic predictors of infidelity abound, the literature leaves us with an incomplete and inconsistent picture (Blow & Hartnett, 2005). Gender is the most commonly studied demographic factor. Early studies reportedly found that men engaged in infidelity more than women (Wiederman, 1997). However, more recent research seems to suggest that the gender gap is narrowing (Barta & Kiene, 2005; Burdette, Ellison, Sherkat, & Gore, 2007) and when transgressions other than intercourse (e.g., emotional connection, kissing) are taken into account, women report as many acts of infidelity as men (Allen et al., 2005; Treas & Giesen, 2000).

Relationship status is another variable that has been examined, and although relationship status has not been found to be a significant predictor for infidelity in men, married women are less likely to report infidelity than cohabitating or dating women. It has been speculated that, perhaps for women, a marital relationship implies a higher level of commitment and offers a protective benefit (Preveti & Amato, 2004).

Religiosity has also been found to be a predictor, or correlate, of infidelity (Allen et al., 2005; Burdette et al., 2007; Buss & Shackleford, 1997; Mattingly, Wilson, Clark, Bequette, & Weidler, 2010; Treas & Giesen, 2000; Whisman, Gordon, & Chatav, 2007). Infidelity has consistently been reported more often by individuals who endorse no religious affiliation than by those who do (Burdette et al., 2007; Mattingly et al., 2010).

Several studies have found that education is associated with infidelity, in that highly educated persons are more likely to report engaging in infidelity than less educated individuals (Atkins, Baucom, & Jacobson, 2001; Treas & Giesen, 2000). However, other studies have found the reverse or no relationship at all (e.g., Allen et al., 2005). As is the case for other demographic variables, the impact of education is likely to be moderated or mediated by

other factors. Also, income has been found to be related to infidelity. Individuals with higher incomes are more prone to engage in infidelity and this may be because their professional and personal lives include more opportunities to engage in extradyadic relations (Allen et al., 2005; Atkins et al., 2001; Glass & Wright, 1985). Some researchers have found that around one-half of participants who had cheated on their partner and who sought therapy (due to problems in their primary relationship) had met their extradyadic partner through their work (Wiggins & Lederer, 1984). Yet, the impact of education, income, and employment is not fully understood, as some studies have found a relationship among men but not women (Saunders & Edwards, 1984), while others have found no relationship at all (Janus & Janus, 1993; Wiederman, 1997).

Interpersonal Factors

Interpersonal factors, especially ones related to relationship quality or satisfaction, have also been evaluated in a number of studies, with equally mixed results (Buss & Shackleford, 1997; Choi, Catania, & Dolcini, 1994; Fisher et al., 2009; Mattingly et al., 2010; McAlister, Pachana, & Jackson, 2005; Preveti & Amato, 2004; Prins, Buunk, & VanYperen, 1993; Spanier & Margolis, 1983). Some studies have found that low relationship quality is associated with infidelity. For example, low marital satisfaction has been found to be associated with the occurrence of extramarital sex (e.g., Spanier & Margolis, 1983). However, other studies have failed to find significant associations between extramarital sex and marital happiness or adjustment or even with quality of marital sex (e.g., Choi et al., 1994).

Most studies fail to make a distinction between extramarital sex and extramarital affairs, which may involve different attitudes, determinants, and outcomes. Some studies have found that more women than men tend to believe that falling in love justifies extramarital sexual involvement (Glass & Wright, 1992). Obviously, extramarital affairs can be a consequence of marital problems, their cause, or both (Previti & Amato, 2004; Spanier & Margolis, 1983).

Personality Factors

When not caused by marital conflict or low marital satisfaction, infidelity may be associated with opportunity and permissive values. However, both of these can, in and of themselves, be expected to be associated with an individual's sexual make up or propensities. For example, Treas and Giesen (2000) found, using nationally representative survey data, a higher likelihood of sexual infidelity among men and women with stronger sexual interest levels. Although measured with only a single questionnaire item, these findings underscore the relevance of taking into account individual differences associated with sexual desire or other sexual propensities when attempting to predict which couples may be most vulnerable to sexual infidelity.



Recently, some attention in the literature has been paid to personality variables in relation to extradyadic sex, although most of this research has focused on nonsexual variables. For example, some studies focused on the Big Five personality traits and found that extraversion (Barta & Kiene, 2005), low agreeableness (Barta & Kiene, 2005), high neuroticism (Barta & Kiene, 2005; Buss & Shackleford, 1997; Whisman et al., 2007), low conscientiousness (Barta & Kiene, 2005; Buss & Shackleford, 1997), and high psychoticism (Buss & Shackleford, 1997) all contribute to a greater likelihood of engaging in extradyadic relations. In contrast, less is known about sexual propensities, or sexual personality traits, and their association with sexual infidelity.

The dual control model of sexual response (Bancroft & Janssen, 2000; Janssen & Bancroft, 2007) proposes that sexual desire, arousal, and associated behaviors depend on a balance between sexual excitation and inhibition. It is a state/trait model, in that it proposes that the weighing of excitatory and inhibitory processes occurs within individuals in any given situation, and, at the same time, it assumes individual variability in the propensity for these processes. Over the past decade, an extensive series of studies have focused on the trait dimension of the model and, using the SIS/SES scales (Janssen, Vorst, Finn, & Bancroft, 2002a, b; however, see Milhausen et al., 2010 for a newly developed measure of sexual inhibition and excitation) have revealed substantial variability in both men and women in sexual inhibition and excitation scores, with distributions close to normal. Several studies (e.g., Carpenter, Janssen, Graham, Vorst, & Wicherts, 2008; Janssen et al., 2002a; Varjonen et al., 2007) have found and confirmed a general factor structure involving one sexual excitation factor (SES) and two sexual inhibition factors: sexual inhibition due to the threat of performance failure (SIS1) and sexual inhibition due to the threat of performance consequences (SIS2). Varjonen et al. (2007), in a twin study, found modest heritability for both sexual excitation and sexual inhibition proneness and others (Carpenter et al., 2008; Janssen et al., 2002a) have found that sexual excitation and the two types of sexual inhibition show only a small degree of overlap with more global personality traits of behavioral inhibition, neuroticism, harm avoidance, and reward responsivity, supporting the notion that the scales assess propensities that are relatively specific to sex.

A number of studies have shown that the propensity for sexual excitation is related to sexual responsiveness, sexual desire levels, sexual compulsivity, and lifetime number of casual sexual partners (for review, see Bancroft, Graham, Janssen, & Sanders, 2009; Janssen & Bancroft, 2007). As is the case for sexual excitation, moderate levels of sexual inhibition can be considered adaptive. High levels of sexual inhibition, however, have been found to be associated with an increased vulnerability to sexual dysfunction (especially SIS1), and low levels with an increased likelihood of various forms of risky sexual behavior (especially SIS2, for review, see Bancroft et al., 2009; Janssen & Bancroft,

2007). For example, in a study with heterosexual men (Bancroft et al. 2004), SIS2 was a significant negative predictor of number of partners in the past three years with whom no condoms were used, and also of the lifetime number of one-night stands. Similarly, Turchik and Garske (2009) found significant correlations between SES and SIS2 and various sexual risk behaviors in both men and women. Sexual infidelity can be conceived of as a form of sexual risk taking, as it often involves some awareness of potentially negative consequences. Thus, low levels of sexual inhibition, particularly when combined with high levels of excitation, could be expected to contribute to men and women's sexual infidelity.

The current study aimed to assess the relative importance of demographic, interpersonal, and sexual personality factors in predicting infidelity in heterosexual couples, using the Dual Control Model as its main theoretical framework. In contrast to the majority of previous studies on infidelity, many of which would rely on marriage as a criterion for monogamy (ignoring, for example, the possibility of open marriages), the current study focused on a sample of men and women who indicated being in any type of monogamous relationship. Further, infidelity was defined as extradyadic sex that occurs within the context of a selfdescribed monogamous relationship and that could, according to the respondent, jeopardize (or hurt) their relationship, rather than solely relying on the admission of certain sexual activities (e.g., kissing, cybersex) with others. Finally, data were collected on the Internet. Research suggests that social desirability is reduced in online studies, especially for more sensitive sexual questions, as compared to investigations utilizing traditional pencil and paper survey approaches (Pealer, Weiler, Pigg, Miller, & Dorman, 2001; Turner et al., 1998).

Method

Participants

Participants were 918 self-identified heterosexual men and women who completed an online questionnaire posted on the website of The Kinsey Institute for Research in Sex, Gender, and Reproduction. The Kinsey Institute website lists a variety of online studies that are available to visitors of the research section of the website and who are invited to "help us in our research effort by completing one of our online surveys." Participants first read an informed consent statement in which the questionnaires were described in generic terms as being about mood and sexuality, sexual preferences, sexual functioning, and so on and were asked to confirm that they had read the statement and that they were 18 years or older. Participants were not paid or given other incentives to participate in the study. All participants indicated to reside in North America (USA and Canada) at the time of data collection. Although 1613 individuals completed the online questionnaire, we only included those who indicated being in a monogamous relationship and who identified as



heterosexual. Additionally, only people between the ages of 18 and 63 and those who provided an answer to the infidelity item were included. Of the 506 men and 412 women constituting the final sample, more than a fifth (21.5%) indicated that they, during their current relationship, ever had "cheated (i.e., engaged in sexual interactions with someone other than your primary partner that could jeopardize, or hurt, your relationship)." The study protocol was approved by the University's Institutional Review Board.

The sample consisted of 55% (n = 506) men and 45% (n = 412) women who were in a relationship for an average of 6.96 years (range, 3 months to 43 years). Demographic comparisons for men and women are shown in Table 1. The majority (88.5%) of participants were Caucasian. The average age of participants

Table 1 Demographic characteristics of men and women

	Men (n = 506)	Women $(n=412)$	χ^2	Cramer V
	N (%)	N (%)		
Marital status			37.76*	.21
Single/never married	129 (25.6)	164 (39.9)		
Cohabitating	57 (11.3)	71 (17.3)		
Married	298 (58.7)	161 (39.0)		
Separated/divorced/widowed	22 (4.4)	16 (3.8)		
Race			1.62	.10
Non-White ^a	110 (21.8)	59 (14.2)		
White	381 (75.2)	335 (81.4)		
Hispanic/Latino	15 (3.0)	18 (4.4)	3.47	.19
Importance of religion			7.15	.05
Very important	61 (12.1)	41 (10.0)		
Important	128 (25.3)	92 (22.2)		
Slightly important	146 (28.9)	153 (37.2)		
Not important at all	171 (33.7)	126 (30.6)		
Education completed			49.63*	.07
Completed high school	71 (14.0)	37 (9.0)		
Attended college/tech	271 (53.6)	140 (34.0)		
School/university				
Still attending college	164 (32.4)	235 (57.0)		
Tech school/university				
Income			22.71*	.16
Poverty level/lower income	77 (15.1)	96 (23.2)		
Lower middle income	98 (19.4)	102 (24.7)		
Middle income	186 (36.9)	142 (34.5)		
Middle upper/upper income	145 (28.6)	72 (17.6)		
Employment status			88.71*	.31
Yes, full time	346 (68.5)	157 (38.2)		
Yes, part time	74 (14.5)	135 (32.8)		
No, unemployed	69 (13.6)	106 (25.8)		
No, temporary/seasonal	17 (3.4)	14 (3.2)		

^{*} p < .05 tested using Holm's sequential Bonferroni procedure (Holm, 1979)

^a Includes American Indiana/Eskimo, Asian, Hawaiian, African American, and mixed race



was 31.0 years (SD=10) and men were significantly older than women (M=32.9 vs. 27.7 years; t(916)=7.93, p<.01). One-half of the participants indicated that they were married, but male participants were more likely to be married than female participants (59% vs. 39%). Slightly fewer men were cohabitating with their partner than women (11% vs. 17%) and there were fewer men than women who were single and never married (25% vs. 40%). Most participants had attended or were still attending post-secondary institutions; women were more likely than men to be still attending (57% vs. 32%). More men (69%) than women (38%) indicated that they were employed full time. The majority of participants (65%) indicated that religion was slightly important or not at all important to them.

Measures

Interpersonal Variables

Happiness in current relationship, sexual satisfaction, and compatibility with current partner were assessed. Happiness in current relationship was assessed by the single item: "In general, how happy are you in your relationship?" Response options ranged from 1 ("very happy") to 10 ("very unhappy"). Sexual satisfaction was assessed by a single item: "How satisfied are you in your sexual relationship with your partner?" and the response options ranged from 1 ("very satisfied") to 10 ("very unsatisfied"). Compatibility in the current relationship was assessed with three items, each focusing on a different aspect of compatibility. The items had the same stem: "How compatible, or similar, do you feel you and your partner are when it comes to..." and then were asked to assess compatibility in terms of "frequency of sexual contact," "importance of sex in your relationship," and "attitudes towards (or values and ideas) about sex." The response options for these three items ranged from 1 ("very compatible") to 10 ("very incompatible") and the Cronbach alphas for this scale in the current sample were .89 for men and .86 for women.

Personality Related Variables

The primary personality variable incorporated in the current investigation was the propensity for sexual inhibition and sexual excitation, assessed by the Sexual Excitation/Sexual Inhibition Scale (SES/SIS) (Carpenter et al., 2008; Janssen et al., 2002b). This 45-item questionnaire measures three factors: (1) the propensity for sexual excitation (SES), (2) the propensity for sexual inhibition due to performance failure (SIS1), and (3) the propensity for sexual inhibition due to performance consequences (SIS2). The factor structure was derived from a combination of exploratory and confirmatory factor analyses, with the latter, while examining the fit of competing models, providing support for the three-factor structure (Carpenter et al., 2008; Janssen

et al., 2002a; Varjonen et al., 2007). Also, the scales have shown to have adequate internal consistency and test–retest reliability (e.g., Carpenter et al., 2008; Janssen et al., 2002a). In the current study, Cronbach alphas for SES were .88 for men and .90 for women, for SIS1 they were .81 for men and .72 for women, and for SIS2 they were .67 for men and .71 for women. Typical items include: for SES, "When a sexually attractive stranger accidentally touches me, I easily become aroused;" for SIS1, "When I am having sex, I have to focus on my own sexual feelings in order to stay aroused;" for SIS2, "If I am having sex in a secluded, outdoor place and I think that someone is nearby, I am not likely to get very aroused." The response options for each item ranged from 1 ("strongly agree") to 4 ("strongly disagree").

Additionally, the Revised Mood and Sexuality Questionnaire (MSQ-R) (Janssen, Macapagal, & Mustanski, 2010) was included. This trait measure builds on the Mood and Sexuality Questionnaire (MSQ) which in previous studies has been found to predict various aspects of sexual risk taking (e.g., Bancroft, Janssen, Strong, & Vukadinovic, 2003a; Bancroft, Janssen, Strong, Vukadinovic, & Long, 2003b). The MSQ-R asks participants to indicate what happens to sexual responsiveness when feeling sad/depressed, anxious/stressed or happy/cheerful. For each mood state, questions were asked about the effects of that mood on sexual desire, the ability to become aroused, masturbation frequency, and on sexual activities one might regret later. For each of these questions, participants were asked to indicate whether being in a certain mood state typically decreases, increases or does not influence their desire/behavior. The subscale consisting of the sum score of four items, "Regret," was used in the current study to specifically explore the effects of mood on one's tendency to engage in sexual behavior one regrets later. An example item is: "When I feel anxious/stressed, I am likely to do something sexual that I regret later." Response options ranged from 1 ("much more than usual") to 5 ("much less than usual"). The same question was asked with the substitution of "sad/depressed" and "happy/cheerful" in place of "anxious/stressed." The fourth item asked about the effects of feeling happy/cheerful on the desire for sex with somebody, with the explicit addition of "not necessarily my partner." Cronbach alphas were .64 for men and .74 for women in the current study.

Data Analyses

First, comparisons between those who had engaged in infidelity and those who had not were conducted for demographic variables using chi-square analyses and *t*-tests. Then, correlations and chi-square analyses were used in order to assess the bivariate relationships between infidelity and a number of demographic, interpersonal, and personality variables which had been identified in previous research as being associated with infidelity. Bivariate and multivariate analyses were conducted separately by gender. Categorical demographic and interpersonal variables were recoded

using median splits¹ such that the category of risk was considered against all other categories. For example, as previous research suggests that persons with higher income and education are more likely to engage in infidelity, persons reporting income and education higher than the median were contrasted with those below the median. Demographic variables included: marital status, importance of religion, level of education, level of income, and employment status. Interpersonal variables included: relationship satisfaction, sexual satisfaction, and perceived compatibility with current partner. Propensity for sexual excitation and sexual inhibition and tendency to engage in regretful sexual behavior in positive and negative mood states were included as personality variables.

Results

Sample Description

There were no significant gender differences in the report of infidelity (23% of men vs. 19% of women). Demographic comparisons for those who had engaged in infidelity during their current relationship and those who had not engaged in infidelity are shown in Table 2. Individuals who reported engaging in infidelity were slightly but significantly older than those who did not (M = 31.9 vs. 30.2 years; t(916) = -2.11, p = .04). Also, individuals who engaged in infidelity compared to those who had not were less likely to consider religion to be very important (6% vs. 13%), and were more likely to be employed full-time (63% vs. 53%).

Individuals who had engaged in infidelity reported significantly more one-night stands in their lifetime (M = 6.3, SD =8.6 vs. M = 3.5, SD = 7.52; t(903) = -4.43, p < .01). Those who engaged in anal intercourse once or more over the past 6 months were more likely to have engaged in infidelity than those who had not (26% vs. 19%; $\chi^2(1) = 5.30$, p < .05), although there was no significant difference in vaginal intercourse frequency (p = .11). There were no significant differences between those who had engaged in infidelity and those who had not in terms of the amount of sexual activity, masturbation frequency, vaginal intercourse, and anal intercourse engaged in over the past 6 months. Most participants indicated that they were having regular sex; specifically, over one-half of the participants indicated that they engaged in sexual activity several times a month (24%), once or twice a week (21%), or several times a week (35%). The majority of the participants reported masturbating once or twice a week (20%) or several times a week (30%). Over one-half of the participants indicated they engaged in vaginal

¹ Multiple regression analyses using continuous variables were also conducted; findings were identical to those based on dichotomous variables.



Table 2 Demographic characteristics of persons who engaged and did not engage in infidelity

	Engaged in infidelity $(n = 196)$	Did not engage in infidelity $(n = 719)$	χ^2	Cramer's V
	N (%)	N (%)		
Gender			2.32	.09
Male	118 (59.9)	388 (53.8)		
Female	79 (40.1)	333 (46.2)		
Marital status			8.64	.10
Single/never married	50 (25.5)	243 (33.8)		
Cohabitating	22 (11.2)	106 (14.7)		
Married	115 (58.7)	343 (47.7)		
Separated/divorced/widowed	9 (4.6)	27 (3.8)		
Race			.24	.08
Non-White ^a	13 (6.8)	51 (7.1)		
White	175 (89.1)	639 (88.8)		
Hispanic/Latino	8 (4.1)	29 (4.1)	.08	.11
Importance of religion			10.63*	.08
Very important	11 (5.6)	92 (12.7)		
Important	43 (22.1)	176 (24.5)		
Slightly important	65 (33.3)	232 (32.3)		
Not important at all	77 (39.0)	219 (30.5)		
Education completed			4.69	.06
Completed high school	31 (15.8)	76 (10.6)		
Attended college/tech	90 (45.8)	319 (44.3)		
School/university				
Still attending college	75 (38.4)	324 (45.1)		
Tech school/university				
Income			3.37	.08
Poverty level/lower income	28 (14.4)	143 (19.9)		
Lower middle income	43 (22.1)	157 (21.8)		
Middle income	74 (37.4)	255 (35.4)		
Middle upper/upper income	51 (26.1)	164 (22.9)		
Employment status			10.56*	.11
Yes, full time	123 (62.9)	378 (52.6)		
Yes, part time	39 (19.8)	169 (23.5)		
No, Unemployed	33 (16.8)	142 (19.8)		
No, temporary/seasonal	1 (.5)	30 (4.1)		

*p<.05 tested using Holm's sequential Bonferroni procedure (Holm, 1979). The same pattern of results emerged when the comparison of infidelity groups was conducted separately for men and women

sex several times a month (27%), once or twice a week (27%), or several times a week (28%). Anal sex was reported to have occurred less frequently, with the majority of the participants (68%) never having engaged in anal sex and about a quarter of the participants (25%) engaging in anal sex once a month or less.

Bivariate Analyses

Demographic Variables

Demographic variables were dichotomized to contrast characteristics associated with infidelity in previous research (being unmarried, having more than a high school education, making a

middle or higher income, being employed full-time, and perceiving religion to be of low or no importance) with characteristics more often associated with faithfulness (e.g., being married, having a high school education or less, and so on). Bivariate relationships among the demographic and interpersonal variables of interest are shown in Table 3. Among women, none of the demographic variables found in previous literature to be associated with infidelity were associated with infidelity. Among men, only level of education was significantly associated with infidelity, and the findings were counter to past research. Specifically, men who reported to have engaged in infidelity were *less* likely to have more than a high school education (82%) compared to those who did not (89%).



^a Includes American Indiana/ Eskimo, Asian, Hawaiian, African American, and mixed race

Table 3 Bivariate associations between demographic and interpersonal variables and engaging in infidelity

Gender	Predictor	Engaged in infidelity $N\left(\%\right)$	Did not engage in infidelity $N\left(\%\right)$	χ^2	Cramer's V
Men	Marital status			3.45	.09
	Married	78 (66.1)	218 (56.5)		
	Other	40 (33.9)	168 (43.5)		
	Importance of religion			2.88	.08
	Not important	81 (69.2)	235 (60.6)		
	Other	36 (30.8)	153 (39.4)		
	Happiness in relationship			19.41*	.20
	Very unhappy/unhappy	56 (47.5)	101 (26.0)		
	Other	62 (52.5)	287 (74.0)		
	Sexual satisfaction			17.53*	.19
	Very dissatisfied/dissatisfied	81 (68.6)	181 (46.6)		
	Other	37 (31.4)	207 (53.4)		
	Perceived compatibility			8.62*	.33
	Very incompatible/incompatible	87 (73.7)	228 (58.8)		
	Other	31 (26.3)	160 (41.2)		
Women	Marital status			2.59	.08
	Married	37 (47.4)	125 (37.5)		
	Other	41 (52.6)	208 (62.5)		
	Importance of religion			3.73	.10
	Not important	60 (76.9)	217 (65.6)		
	Other	18 (23.1)	114 (34.4)		
	Happiness in relationship			16.40*	.20
	Very unhappy/unhappy	34 (43.0)	70 (21.0)		
	Other	45 (57.0)	263 (79.0)		
	Sexual satisfaction			3.54	.09
	Very dissatisfied/dissatisfied	39 (49.4)	126 (37.8)		
	Other	40 (50.6)	207 (62.2)		
	Perceived compatibility			1.13	.30
	Very incompatible/incompatible	42 (53.2)	154 (46.5)		
	Other	37 (46.8)	177 (53.5)		

^{*}p < .05 tested using Holm's sequential Bonferroni procedure (Holm, 1979)

Interpersonal Variables

Lower relationship happiness was associated with infidelity in both men and women. Specifically, 72% of men who engaged in infidelity reported lower relationship happiness compared to 47% of men who did not. Likewise, 62% of women who engaged in infidelity reported lower relationship happiness, compared to 40% of women who did not. Lower sexual satisfaction was only associated with infidelity in men. Sixty-nine percent of men who reported lower sexual satisfaction engaged in infidelity, compared to 47% of men who had not. Regardless of infidelity status, 40% of women reported low sexual satisfaction. Perceived sexual incompatibility was also more commonly associated with infidelity among men than among women. Two-thirds of men (74%) who had engaged in infidelity reported lower compatibility in terms of frequency of sexual contact, compared to 59% of men who did not. About 48% of women (including those who had

engaged in infidelity and those who did not) reported low compatibility in terms of frequency of sexual contact. Similarly, 70% of men who engaged in infidelity reported lower compatibility in terms of importance of sex compared to 51% of men who did not. Again, about 38% of women reported low compatibility in this area. For both men and women, perceived incompatibility related to sexual attitudes and values was associated with infidelity. Specifically, 63% of men who reported having engaged in infidelity reported lower compatibility of this type, compared to 46% of men who did not. Likewise, 51% of women who had engaged in infidelity reported lower compatibility regarding attitudes and values related to sex, compared to 29% of women who did not.

Personality Related Variables

Men who had engaged in infidelity scored higher on sexual excitation and on sexual inhibition due to performance failure. Men



Table 4 Bivariate associations between sexual personality variables and engaging in infidelity

Gender	Predictor	Engaged in infidelity <i>M</i> (SD)	Did not engage in infidelity $M(SD)$	t	Cohen's d
Men	Sexual Excitation (SES)	61.80 (6.78)	59.31 (7.32)	-3.35*	.35
	Sexual Inhibition Due to Performance Failure (SIS1)	28.99 (6.30)	27.35 (5.51)	-2.72*	.28
	Sexual Inhibition Due to Performance Consequences (SIS2)	26.59 (4.44)	27.57 (4.25)	2.16*	23
	Influence of Mood on Engaging in Regretful Sexual Behavior (MSQ-R)	2.77 (.65)	2.50 (.75)	-3.82*	.38
Women	Sexual Excitation (SES)	58.03 (8.79)	55.69 (8.61)	-2.17*	.27
	Sexual Inhibition Due to Performance Failure (SIS1)	33.03 (6.97)	31.34 (5.95)	-2.19*	.26
	Sexual Inhibition Due to Performance Consequences (SIS2)	29.90 (3.99)	31.70 (4.72)	3.46*	41
	Influence of Mood on Engaging in Regretful Sexual Behavior (MSQ-R)	2.59 (.80)	2.37 (.84)	-2.05*	.27

^{*} p < .05 tested using Holm's sequential Bonferroni procedure (Holm, 1979)

also scored lower on sexual inhibition due to performance consequences. Additionally, men who had engaged in infidelity had a higher tendency to engage in regretful sexual behavior in negative or positive mood states. Among women, those who had engaged in infidelity scored higher on sexual excitation and sexual inhibition due to performance failure, and scored lower on sexual inhibition due to performance consequences. Additionally, women who had engaged in infidelity had a higher tendency to engage in regretful sexual behavior in negative or positive mood states (see Table 4).

Regression Analyses

Variables which were significant at the bivariate level and those which were considered to be of theoretical relevance to infidelity were included in the multivariate analyses. A total of nine predictor variables were included in a multivariate logistic regression analysis with occurrence of infidelity during the current relationship as the dependent variable (see Tables 5 and 6). Age was included as a covariate. Multicollinearity tests revealed that tolerance levels and VIFs were higher than .2 and lower than 10, respectively, indicating the absence of multicollinearity (Fox, 1991).

Seventeen percent of the variance in engaging in infidelity was explained by variables in the men's model. Only personality variables significantly predicted engaging in infidelity among men. For every one unit increase in SES, men were 4% more likely to report having engaged in infidelity; similarly, for every one unit increase in SIS1, men were 6% more likely to have engaged in infidelity. For every one unit increase in SIS2, men were 7% less likely to have engaged in infidelity. A single unit increase in engaging in regretful sexual behavior during negative affective states was associated with a 53% increased chance of engaging in infidelity.

Twenty-one percent of the variance in engaging in infidelity was explained by the variables in the women's model. Interper-

Table 5 Predictors of infidelity among men (N = 503)

Predictors	В	SE_{B}	Wald	Exp (B)
Age	.02	.01	2.72	1.02
Marital status	.10	.30	.12	1.11
Importance of religion	.40	.25	2.65	1.49
Happiness in relationship	.40	.27	2.17	1.50
Sexual satisfaction in relationship	.30	.32	.88	1.35
Compatibility frequency of sex	00	.32	.00	1.0
Compatibility importance of sex	.40	.32	1.6	1.50
Compatibility sexual values	.07	.28	.07	1.08
SES	.04	.02	5.89*	1.04
SIS1	.06	.02	7.70**	1.06
SIS2	07	.03	6.23*	.93
MSQ regret	.43	.17	6.23*	1.53

^{*} *p* < .05, ** *p* < .01

Table 6 Predictors of infidelity among women (N = 408)

Predictors	В	SE_{B}	Wald	Exp (B)
Age	03	.02	2.80	.97
Marital status	29	.35	.66	.75
Importance of religion	.46	.32	2.13	1.59
Happiness in relationship	.96	.35	7.52**	2.62
Sexual satisfaction in relationship	51	.38	1.80	.60
Compatibility frequency of sex	26	.40	.42	.77
Compatibility importance of sex	09	.39	.05	.92
Compatibility sexual values	1.07	.37	8.54**	2.93
SES	.01	.02	.53	1.01
SIS1	.07	.03	7.69**	1.08
SIS2	14	.04	13.46***	.87
MSQ regret	.36	.17	4.26*	1.43

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



sonal and personality variables predicted infidelity among women. In particular, women reporting low relationship happi ness were 2.6 times more likely to report having engaged in infidelity. Also, women who perceived low compatibility in terms of sexual attitudes and values were 2.9 times more likely to have engaged in infidelity. For every one unit increase in SIS1, women were 8% more likely to engage in infidelity. For every one unit increase in SIS2, women were 13% less likely to have engaged in infidelity.

Discussion

The objective of this study was to identify the demographic, interpersonal, and personality-related predictors of infidelity in a convenience sample of individuals in heterosexual, monogamous relationships. Over one-fifth (22%) of the participants indicated that they had "cheated" in their current relationship. Though similar amounts of variance were accounted for by variables in the men's and women's models, relationship variables, such as happiness in relationship and perceived sexual compatibility, were more prominent predictors of infidelity in women. Interestingly, demographic predictors, including age, marital status and the importance of religion, were not significant in any of the multivariate models.

Sexual personality variables, but only those relevant to inhibition, performed similarly in the men's and women's regression models. Men and women scoring lower on inhibition due to performance consequences (SIS2) were more likely to report sexual infidelity. In interpreting these findings, it may be useful to conceptualize infidelity as a form of sexual risk-taking. Evidence from a number of studies suggests that individuals low in SIS2 are more prone to sexual risk-taking (for a review, see Bancroft et al., 2009). For example, SIS2 has been a significant negative predictor of number of partners with whom no condoms were used and lifetime number of one-night stands among heterosexual men (Bancroft et al., 2004), of the tendency to engage in casual sex among heterosexual women (Carpenter et al., 2008), and of sexual risk behaviors in male and female college students (Turchik & Garske, 2009). Likewise, the findings of the current study indicated that a stronger tendency to lose one's sexual arousal when facing possible risks (as reflected by higher scores on SIS2) appears to have a protective effect for engaging in infidelity.

In contrast to SIS2, not lower but *higher* scores on SIS1 were associated with increased reporting of infidelity in men and women. This somewhat counterintuitive finding is, interestingly, not inconsistent with findings reported in the literature on other types of sexual risk behaviors. For example, Bancroft et al. (2003a) found a positive association between SIS1 and the number of casual sex partners in gay men. Also, Peterson, Janssen, and Heiman (2009) found a positive association between SIS1 and sexually aggressive behaviors in heterosexual men. These

findings, jointly, seem to point at the possibility that some individuals who have problems with their sexual functioning (specifically, the ability to achieve and maintain sexual arousal) may seek out high-risk sexual activities in order to buttress arousal problems. In addition, it is possible that individuals who score high on SIS1 may feel less pressure to perform sexually when engaging in sexual activity with someone outside their primary relationship, whether this involves a casual or, apparently, even a coercive sexual encounter. In other words, and more directly related to the focus of the current study, experiencing sexual problems in the context of the extradyadic relationship may be less threatening for individuals with arousal difficulties. It may be that individuals with arousal difficulties feel less pressure to perform sexually with a partner to whom they are not emotionally committed or in a relationship context which is not longterm. In addition, it may be that some individuals want to evaluate if, or believe that, their arousal difficulty is specific to their primary relationship and engage in infidelity for that reason. However, more research is clearly needed to help explain the relationship between inhibition of this type (SIS1) and risky forms of sexual behavior, including sexual infidelity.

Finally, SES predicted infidelity, but only in the male participants. This finding parallels other research conducted with samples of heterosexual (Bancroft et al., 2004; Turchik & Garske, 2009) and gay men (Bancroft et al., 2003a), in which higher propensity for sexual excitation has been associated with various aspects of sexual risk-taking although this has also been found in heterosexual women (Turchik & Garske, 2009). More generally, the propensity for sexual excitation has been found to be relevant to sexual desire levels and overall sexual responsiveness (for a review, see Bancroft et al., 2009), which may also partly explain its role in predicting sexual infidelity, at least in men.

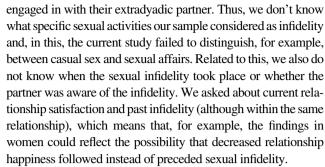
When it comes to mood, both men and women who reported that mood influences their tendency to engage in regretful sexual behavior were more likely to report infidelity. Several studies (e.g., Bancroft et al., 2003b; Lykins et al., 2006) have found that a significant minority of men and women experience increased sexual interest or response during negative affective states. For some of our participants, the desire to engage in infidelity may be fueled by a desire to mitigate negative emotions. For others, positive mood states, like happiness (also covered by the MSQ-R), may lead to feelings of invulnerability to negative consequences, such as getting caught or contracting a sexually transmitted infection

Previous research has indicated that relationship variables are particularly important to women's sexual functioning and satisfaction (Basson, 2005; Byers, 2001; Dennerstein, Lehert, Burger, & Guthrie, 2005; Ellison, 2001; Nicholls, 2008; Prins et al., 1993). The pattern of results from the current study, indicating that women were more likely to engage in infidelity when they were dissatisfied in their relationship or felt incompatible with their partner in terms of sexual values, suggests that the interconnected nature of sexual and relationship factors may be



one of the reasons women engage in infidelity. Evidence from a number of studies suggests that women are more likely than men to link sexual and relationship satisfaction (Basson, 2005; Ellison, 2001; McCabe, 1999; McCabe & Cobain, 1998; Nicholls, 2008). For example, McCabe and Cobain (1998) found that women who experienced sexual problems allowed these problems to impact their relationship satisfaction but sexual problems and relationship satisfaction were relatively independent for men. Thus, it may be that if a woman is not satisfied in her current relationship, she may be more inclined to seek feelings of connection and closeness elsewhere by engaging in infidelity. Relevant in this context is the finding that, for women, sexual excitation did not predict sexual infidelity. This seems to further suggest that in women, at least in this sample, sexual infidelity was less strongly sexually motivated or impacted by high levels of sexual arousability or sexual desire, as compared to men, for whom sexual excitation was a more important predictor than relationship variables.

Several limitations of this study need to be acknowledged. First, the amount of variance unexplained by the men's and women's models indicates that other factors, not included in our analyses, are relevant to the prediction of infidelity. This could include nonsexual personality variables including, for example, extraversion and low conscientiousness (e.g., Barta & Kiene, 2005) and traits such as impulsivity and sensation seeking as well as relationship variables relevant to levels of connection or quality of communication, and more situational or contextual variables, including those that could be relevant to opportunity (e.g., social environment, job characteristics). Future studies could incorporate a more comprehensive set of variables and, in this, compare the predictive value of sexual and nonsexual personality variables. Additionally, the sample was limited to individuals who self-identified as heterosexual. Future research could examine the predictive value of interpersonal and personality factors in non-heterosexual populations. Furthermore, the sample was relatively well-educated, middle- to upper-class men and women, and about two-thirds of the sample indicated that religion was not at all or only slightly important to them. This may also be relevant to the lack of association between religiosity and infidelity in our multivariate models, which contrasts with findings of previous research (e.g., Burdette et al., 2007; Treas & Giesen, 2000; Whisman et al., 2007). Also, although a strength of our study may involve the use of a more explicit definition of infidelity, the word "cheated" may have had negative connotations for participants, and this may have influenced their responses to the question. However, such a bias could have been expected to lead to underreporting of infidelity, which does not seem to have been the case, at least not when comparing our findings to previous research, including studies relying on random samples (e.g., Atkins et al., 2001; Choi et al., 1994; Laumann et al., 1994). Another limitation that needs to be considered involves the fact that we did not ask participants which behaviors comprised the "sexual interactions" they



While acknowledging these limitations, we believe that the findings of this study add to the literature, in particular by improving our understanding of the association between demographic, relational, and personality factors and sexual infidelity. Further, we believe that the current study contributes to the literature due to its operationalization of infidelity. Participants explicitly indicated that they were in a monogamous relationship (instead of relying on marital status, for example) and infidelity was not just defined in behavioral terms (e.g., involving vaginal sex, oral sex) but as behaviors that were perceived as potentially jeopardizing one's relationship. Our study was, to our knowledge, the first to include demographic, interpersonal, and sexual personality variables in a single model predicting infidelity, enabling us to examine the relative importance of each. Few studies on infidelity have gone beyond the exploration of demographic predictors of infidelity. Although some studies have examined nonsexual personality factors (Barta & Kiene, 2005; Buss & Shackleford, 1997; Whisman et al., 2007), none of these studies focused on personality traits that are more directly relevant to sexuality. The current study provides a more comprehensive assessment of potentially relevant factors, and the findings suggest that sexual personality characteristics and, for women, relationship factors, were a stronger predictor of sexual infidelity than demographic variables such as marital status and religiosity.

Acknowledgments The research reported in this publication was supported, in part, by the National Institute of Child Health and Human Development (NICHD) at the National Institutes of Health (R01 HD043689, Erick Janssen, Pl).

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