Sexual Infidelity in a National Survey of American Women: Differences in Prevalence and Correlates as a Function of Method of Assessment

Mark A. Whisman University of Colorado at Boulder Douglas K. Snyder Texas A&M University

The purposes of this study were (a) to estimate the annual prevalence of, and to identify the predictors of, sexual infidelity in a population-based sample of married women (N = 4,884); and (b) to evaluate whether the prevalence and predictors of infidelity varied as a function of whether the assessment of infidelity was based on a face-to-face interview versus a computer-assisted self-interview. Annual prevalence of infidelity was much smaller on the basis of the face-to-face interview (1.08%) than on the computer-assisted self-interview (6.13%). Although many of the predictor variables replicated results from previous studies (e.g., demographic variables, religiosity, sexual experience), findings also indicated that childhood sexual abuse (i.e., forced sex) predicted greater probability of infidelity. Finally, the magnitude of the association with infidelity for 4 of the 9 predictor variables differed between the 2 methods for assessing infidelity. This study's findings underscore the importance of assessing infidelity with methods such as computer-assisted self-interviews that minimize the influence of social desirability and impression management.

Keywords: infidelity, affair, extramarital sex, predictor, computer-assisted assessment

Data from controlled community studies indicate that approximately 20%-40% of men and 20%-25% of women will engage in an extramarital affair in their lifetimes (Greeley, 1994; Laumann, Gagnon, Michael, & Michaels, 1994), and that approximately 2%-4% of married men and women are likely to have engaged in extramarital sex in the past year (Billy, Tanfer, Grady, & Klepinger, 1993; Choi, Catania, & Dolcini, 1994; Forste & Tanfer, 1996; Treas & Giesen, 2000; Wiederman, 1997). Couple therapists view extramarital affairs as one of the most damaging relationship events and one of the most difficult problems to treat in couple therapy (Whisman, Dixon, & Johnson, 1997). Furthermore, infidelity is the most commonly cited cause of divorce in the United States (e.g., Amato & Rogers, 1997) and the single most common cause of conjugal dissolution across 160 societies (Betzig, 1989). In addition, infidelity has been associated with increased risk of mental health problems, including depression and anxiety (Cano & O'Leary, 2000). Given the high prevalence and adverse consequences of infidelity, there is a growing body of literature conducted to identify the correlates of infidelity (for a review, see Allen et al., 2005).

Although there is a sizable body of literature on the prevalence and correlates of infidelity, there has been relatively little attention devoted to issues in the assessment of infidelity. That is to say, infidelity is a sensitive topic and, as such, may be difficult to accurately assess. Public opinion surveys have found that over the years, 70%-80% of Americans say that extramarital sex is always wrong, and most others express at least some disapproval (Smith, 1994). Because most people view infidelity unfavorably, the assessment of infidelity is likely to be influenced by social desirability and impression management: The socially desirable response would be to deny that one has engaged in infidelity to avoid shame or embarrassment and to conform to perceived social norms. Therefore, prevalence estimates for infidelity are likely to vary depending upon how much they are influenced by social desirability. For example, social desirability effects are likely to be large in a face-toface interview relative to an anonymous self-report questionnaire, thereby likely resulting in lower prevalence rates of infidelity in the interview format relative to the questionnaire format. Indeed, assessment methods that result in higher reports of sensitive behaviors relative to other assessment methods are often assumed to be more accurate (Schroder, Carey, & Vanable, 2003). In the only study of which we are aware that addressed this topic with respect to infidelity, lifetime prevalence of infidelity based on participants' responses to a self-administered questionnaire that was returned in a privacy envelope (15.5%) was higher relative to responses to a face-to-face interview (11.2%; Treas & Giesen, 2000). However, analyses were limited to people who were married only once in the former assess-

Mark A. Whisman, Department of Psychology, University of Colorado at Boulder; Douglas K. Snyder, Department of Psychology, Texas A&M University.

Correspondence concerning this article should be addressed to Mark A. Whisman, University of Colorado at Boulder, Department of Psychology, 345 UCB, Boulder, CO 80309-0345. E-mail: whisman@colorado.edu

ment (n = 1,717), whereas the latter assessment included all ever-married or ever-cohabited individuals (n = 2,598). Differences in the two samples as well as differences in the questions used to assess infidelity in the two formats makes comparisons between the two prevalence rates problematic. The use of identically worded questions administered via different formats to the same group of people or to different people randomly assigned to administration format is necessary to evaluate whether prevalence rates vary as a function of method of assessment.

As with the prevalence of infidelity, it is likely that the predictors of infidelity may also differ as a function of mode of assessment. In other words, the strength of the association between a predictor and probability of infidelity might vary as a function of the degree to which social desirability influences responses to the assessment of infidelity, the predictor, or both variables. For potential predictors that are strongly influenced by social desirability, such as those involving behaviors or attitudes, the association between the predictor and infidelity may be greater when both are assessed under conditions of high social desirability, because social desirability could inflate the magnitude of the association. For example, because infidelity and having a history of a large number of sexual partners are both socially disapproved they are both likely to be underreported, resulting in a stronger association between lifetime partners and infidelity under conditions of high social desirability (i.e., telling an interviewer that you have had fewer lifetime partners than you really have and denying engaging in infidelity) relative to conditions of low social desirability.

The first objective of this study was to estimate the annual prevalence of, and to identify the predictors of, sexual infidelity in a population-based sample of married women. The second objective was to evaluate whether the prevalence and predictors of infidelity varied as a function of whether the assessment of infidelity was based on a faceto-face interview versus a computer-assisted self-interview. Selection of predictor variables was based on prior research and availability of questions in the data set. First, we evaluated the association between infidelity and demographic variables that have been identified in prior studies as being associated with probability of infidelity. Specifically, we evaluated (a) age, as prior studies have found that infidelity is negatively associated with age (Choi et al., 1994; Leigh, Temple, & Trocki, 1993; Treas & Giesen, 2000); (b) education, as infidelity has been positively associated with education in some (Amato & Rogers, 1997; Atkins, Baucom, & Jacobson, 2001; Buunk, 1980; Leigh et al., 1993; Reiss, Anderson, & Sponaugle, 1980) but not all studies (Choi et al., 1994; Treas & Giesen, 2000); (c) race and ethnicity, as higher rates of infidelity have been reported for African Americans and Hispanics (Amato & Rogers, 1997; Greeley, 1994; Leigh et al., 1993; Treas & Giesen, 2000; Wiederman, 1997); and (d) marital history, as infidelity has been positively associated with history of prior divorce (Amato & Rogers, 1997; Atkins et al., 2001; Greeley, 1994; Janus & Janus, 1994; Wiederman, 1997). Second, we evaluated whether probability of infidelity was associated with religiosity, as prior studies have found that more religious individuals are less likely to have affairs (Amato & Rogers, 1997; Buunk, 1980; Choi et al., 1994; Greeley, 1994; Janus & Janus, 1994), most likely because of the explicitly unfavorable attitudes and strict prohibition of this behavior characteristic of most religions. Third, we evaluated the association between infidelity and sexual experience, as prior studies have found that people with more sexual relationships in the past are more likely to have secondary sex partners (Bozon, 1996). Finally, we evaluated whether probability of infidelity would be associated with premarital cohabitation, as prior history of cohabitation has been linked with increased risk for infidelity in some (Forste & Tanfer, 1996; Treas & Giesen, 2000) but not all (Amato & Rogers, 1997) studies.

In addition to replicating existing research on predictors of infidelity and extending this line of research through determining whether the strength of these associations differed depending upon the method of assessing infidelity, the final objective of the study was to evaluate potential predictors of infidelity that have not be previously studied. One such potential predictor is a history of childhood sexual abuse. Prior research has shown that childhood sexual abuse is associated with interpersonal problems in adulthood, including problems in sexual functioning (for reviews, see DiLillo, 2001; Rumstein-McKean & Hunsley, 2001). From one perspective, because of its association with sexual difficulties and negative perceptions of sex, one might hypothesize that childhood sexual abuse would be associated with lower probability of engaging in sexual infidelity. However, it has also been proposed that childhood sexual abuse can result in oversexualization of all relationships and can adversely affect nonsexual aspects of intimacy, such as having enduring adverse effects on interpersonal trust (Finkelhor & Browne, 1985). From this perspective, a history of forced sexual intercourse could be hypothesized to contribute to an increased likelihood of sexualization of other types of relationships (e.g., friendships) and greater relationship conflict, thereby increasing subsequent risk for sexual infidelity. Because of theoretical and empirical grounds for competing predictions, we did not specify a directional hypothesis when examining this predictor.

In summary, the present study was conducted to evaluate, in a large, population-based sample of married women, the prevalence and predictors of sexual infidelity, including the predictor of forced sex, and to determine whether estimates of the prevalence and relations with predictor variables would differ depending upon whether the assessment of infidelity was based on face-to-face interviews (a method involving comparatively high demands for social desirability responding) versus computer-assisted self-report (a method involving comparatively low demands for social desirability responding). Data for the study come from Cycle 5 of the National Survey of Family Growth (NSFG), which was conducted to provide national data on marriage, divorce, childbearing, contraception, infertility, and related aspects of the health of women and infants in the United States.

Method

Participants

The 1995 NSFG, which was designed and administered by the National Center for Health Statistics, is a national probability sample of 10,847 women between the ages of 15 and 44, who completed the survey between January and October 1995. The overall response rate for the survey was 79%. The sample included 4,884 women who had been married for at least 13 months (which was necessary to ensure that they had been married for longer than the time period-12 months-used for defining infidelity) and who completed both the interviews. The racial distribution of the sample was 85.8% White, 6.8% Black, 4.0% Asian, 0.4% American Indian, 0.1% multiracial, and 2.3% other; 0.5% of the sample did not respond to the question asking about race. On a separate item regarding ethnicity, 10.7% of the sample identified themselves as Hispanic. Participants had been married an average of 10.55 years (SD = 6.66, range = 1-29). Descriptive information for demographic variables that were evaluated as predictors of infidelity is provided in Table 1.

Procedure

All participants responded to interviews administered in two formats: a face-to-face interview administered by female interviewers, followed by a self-administered interview in which a computer presented items aurally via headphones and provided opportunity for direct entry by respondents (i.e., audio computer-assisted self-interviewing: A-CASI).

Measures

Sexual infidelity. Infidelity was operationalized on the basis of participants' response to the question "During the last 12 months, that is, since (MONTH/YEAR), how many men, if any, have you had sexual intercourse with? Please count every male sexual partner, even those you had sex with only once." If the respondent was unable to recall an exact number, she was asked to provide a range of partners. Identically worded questions were asked in the face-to-face

and A-CASI modes of interview, and participants completed both interview formats, with the A-CASI mode of interview occurring after the face-to-face interview for all participants. Participants who reported having sexual intercourse with more than one person were coded as having engaged in sexual infidelity. This operational definition has been used in prior studies of extramarital infidelity (e.g., Billy et al., 1993; Choi et al., 1994; Leigh et al., 1993). It should be noted that this definition allows for some error, as women who were not having sex with their husband but had engaged in sex with a single outside partner would be coded as not having engaged in infidelity (i.e., as false negatives).

Demographic variables. Standard demographic questions were used to assess for age, education, race, ethnicity, marital history (including number and outcomes of prior marriages), and premarital cohabitation ("Did you and your husband live together before you got married?").

Religiosity. Two items administered during the face-toface interview assessed degree of religiosity: "Currently, how important is religion in your daily life? Would you say it is very important, somewhat important, or not important?" and "About how often do you attend religious services? Would you say more than once a week, once a week, 1–3 times per month, less than once a month, or never?" Items were scored such that higher scores indicate greater degree of religiosity. Because the two items were highly correlated (r = .62), the mean of the standardized values of these two items was used to create a religiosity scale; items were standardized because of differences in scaling for the two items.

Sexual experience. The degree of sexual experience was defined by responses to the following question, administered during the face-to-face interview: "Counting all your male sexual partners, even those you had intercourse with only once, how many men have you had sexual intercourse with in your life?" If the respondent was unable to recall an exact number, she was asked to provide a range of partners, and the mean of the low and high estimate was taken as the number of sexual partners. Because the distribution of responses to this question demonstrated high positive skew (i.e., the maximum was 372), responses \geq 30 were recoded as 30.

Table 1

Descriptive Information for, and Correlations Among, Predictor Variables

1 0 0				0.								
Variable	М	SD	%	1	2	3	4	5	6	7	8	9
 Age Education Race (Black)^a Ethnicity (Hispanic)^a Remarried^a Religiosity^b Lifetime sexual partners 	34.35 13.20 -0.05 4.12	6.17 2.75 0.91 5.03	6.8 10.7 18.4		.08	.03 02 	10 26 08	.22 12 04 03	.07 .01 .15 .06 07	.04 .06 .03 11 .26 18	05 12 .06 00 .11 02 .12	$\begin{array}{r}07 \\08 \\ .02 \\05 \\ .26 \\27 \\ .31 \end{array}$
abuse ^a 9. Premarital cohabitation ^a			5.4 40.5								_	.10

Note. p < .05 for $|\mathbf{r}| \ge .03$.

^a Dummy coded (0 = no, 1 = yes). ^b Values are standardized.

150

Table 2

5		<i>J</i> 1		5	<i>J</i>		5						
	Face-to-face						A-CASI						
				959	95% CI						95% CI		
Predictor	r	b	Wald	OR	Low	High	r	b	Wald	OR	Low	High	
Age	04	-0.06	6.41	0.94	0.90	0.99	05	-0.04	9.34*	0.97	0.94	0.99	
Education	01	-0.03	0.35	0.97	0.89	1.07	07	-0.11	19.71**	0.90	0.86	0.94	
Race (Black) ^a	.05	1.21	15.41**	3.35	1.83	6.16	.08	0.93	30.36**	2.52	1.81	3.51	
Ethnicity (Hispanic) ^a	01	-0.27	0.31	0.77	0.30	1.96	.03	0.40	4.99	1.49	1.05	2.11	
Remarried ^a	.04	0.74	5.17	2.09	1.10	3.97	.07	0.62	15.21**	1.86	1.36	2.54	
Religiosity	05	-0.52	12.47^{**}	0.59	0.44	0.79	06	-0.25	10.84^{**}	0.78	0.67	0.90	
Lifetime sexual partners	.17	0.13	100.25^{**}	1.13	1.11	1.16	.12	0.07	60.21**	1.07	1.05	1.09	
Childhood sexual abuse ^a	.07	1.49	12.67**	4.44	1.94	10.16	.09	1.07	22.38^{**}	2.92	1.87	4.55	
Premarital cohabitation ^a	.08	1.64	22.41**	5.16	2.60	10.22	.05	0.38	8.64*	1.47	1.13	1.90	

Predictors of Annual Prevalence of Reported Sexual Infidelity by Two Modes of Interview

Note. A-CASI = audio, computer-assisted self-interview; OR = odds ratio; CI = confidence interval. ^a Coded 0 = no, 1 = yes.

* p < .003 (.05/18). * p < .001 (.01/18).

Childhood sexual abuse. During the A-CASI interview, respondents were asked, "At any time in your life, have you ever been forced by a man to have sexual intercourse against your will?" If the person answered "yes," she was asked how old she was when this (first) happened. Childhood sexual abuse was operationalized as forced sexual intercourse occurring before the age of 16.

Analyses

As a result of the complex sample design and weighting of the NSFG, special software was required to estimate standard errors. Analyses were conducted using the Taylor series linearization methods in the SUDAAN software package (Research Triangle Institute, 2001), which is a program that incorporates the sample design into the data analysis, thus rendering acceptable standard errors of the parameter estimates. All analyses were conducted using sampling weights, which adjusted for differing sampling rates (for race and ethnicity), subsampling nonlocation (i.e., inability to locate some participants), nonresponse, and noncoverage of sample participants.

Results

The prevalence of infidelity as assessed by the face-toface interview was 1.08% (*SE* = .16%), whereas the prevalence as assessed by the A-CASI mode of interview was 6.13% (*SE* = .40%).

To evaluate the association between predictor variables and annual prevalence of sexual infidelity, we conducted logistic regression analyses in which sexual infidelity (0 =no, 1 = yes) was regressed on each of the predictor variables. We conducted separate analyses for each of the predictor variables and for the face-to-face and A-CASI estimates of infidelity. Because 18 analyses were computed, a Bonferroni correction factor was adopted to control the familywise error rate—alpha levels were set at .003 (.05/18) and .001 (.01/18).

The associations between the predictor variables and the annual prevalence of sexual infidelity are presented in Table

2. The table includes the regression coefficients from the logistic regression analyses, Wald tests (i.e., the logistic regression coefficient divided by its standard error), and exponents of the regression coefficients (which can be interpreted as odds ratios) and their 95% confidence intervals. As can be seen in this table, for both methods of interview, the probability of sexual infidelity was (a) significantly and positively associated with race (i.e., being Black), lifetime sexual partners, childhood sexual abuse, and premarital cohabitation; and (b) was significantly and negatively associated with religiosity. Results also indicated that based on the A-CASI (but not the face-to-face) format, probability of sexual infidelity was (a) significantly and negatively associated with age and education and (b) significantly and positively related to being remarried. In interpreting the exponents of the regression coefficients (i.e., the odds ratios), these values represent the increase (or decrease for ratios less than one) in odds of engaging in infidelity when (a) the value of the predictor increases by one unit (for continuous predictors) or (b) the predictor level is coded 1 relative to when the predictor is coded 0 (for dichotomous predictors). In illustration of this, the odds ratio of 1.13 for lifetime sexual partners obtained with the face-to-face mode of interview indicates that the probability of infidelity increased by 13% for every additional lifetime sexual partner, whereas the odds ratio of 5.16 for premarital cohabitation obtained with the face-to-face mode of interview indicates that the probability of infidelity was 5.16 times more likely for those who cohabited relative to those who did not cohabit.1

¹ In addition to exhibiting a linear effect with infidelity, age has been found to exhibit a curvilinear association with infidelity in prior research (e.g., Wiederman, 1997). However, we found that after the linear component of the association between age and infidelity had been statistically controlled, the curvilinear component was not significantly associated with probability of infidelity for the face-to-face (b = -.00, Wald = .00, p = .99) or the A-CASI (b = .00, Wald = .59, p = .44) mode of interview.

To determine whether the strength of the association between a predictor variable and infidelity was significantly different between the two modes of interview, we computed tests of dependent correlations (Cohen & Cohen, 1983) on the basis of the correlation coefficients associated with the regression coefficients presented in Table 2. There were statistically significant differences in the magnitude of the associations between the two modes of interview for four of the nine predictors, with greater positive results obtained for the face-to-face interview for questions assessing education, t(4881) = 4.08, p < .001; lifetime sexual partners, t(4881) = 3.00, p < .01; and premarital cohabitation, t(4881) = 2.04, p < .05, versus greater positive results obtained for the A-CASI for items assessing ethnicity, t(4881) = -2.59, p < .01. In comparison, there were no significant differences in the magnitude of the association between the two modes of interview for age (t = 0.86), race (t = -1.61), remarriage (t = -1.91), religion (t = 0.25), or childhood sexual abuse (t = -1.24).

During the A-CASI interview, participants were asked which of the two methods of interview did they think "lets people give more honest answers." The most common response, endorsed by 46.4% of the sample, was that the A-CASI format lets people give more honest answers, compared with 11.2% who replied that it was the face-to-face interview; 42.0% of the sample said the format didn't matter, and 0.5% did not answer the question. During the A-CASI interview, participants were also asked if they were more comfortable answering questions about number of sexual partners (and abortion) "when the interviewer asked them or when you heard them over the earphones." Although the most common response, endorsed by 54.3% of the sample, was that it didn't matter, more people reported feeling more comfortable with the A-CASI format (36.2%) than with the face-to-face format (8.9%); 0.6% did not respond to this question. Because this last question specifically asked participants about their own comfort level, we were interested in evaluating whether the difference in prevalence between the two modes of interview would be greater for people who felt more comfortable with the more anonymous (i.e., A-CASI) mode versus those people who felt more comfortable with the face-to-face mode or who were equally comfortable with the two modes of interview. As expected, for the people who felt more comfortable with the A-CASI format, the difference in prevalence of infidelity between the face-to-face format (1.2%) versus the A-CASI format (8.7%) was more pronounced relative to the people who preferred the face-to-face format or had no preference for either format (1.0% and 4.7% for the faceto-face and A-CASI formats, respectively).

Discussion

We conducted the current study to evaluate the prevalence and correlates of infidelity, as assessed by two modes of interview, in a large, population-based survey of American married women. Before discussing the findings of the study, we first address the issue of social desirability. We assumed that the face-to-face method of interview would be more strongly influenced by social desirability than the A-CASI method of interview. Support for this perspective is provided by respondents' reports that relative to the faceto-face interview format, they believed that people in general are more likely to give honest answers with the A-CASI format, and they themselves were more comfortable answering questions regarding sensitive topics with the A-CASI format. Therefore, participants' reports confirmed the assumption on which this study was based—namely, that social desirability may vary as a function of assessment method. Given this difference, we turn now to discussing whether the prevalence and correlates of infidelity differed between the two interview formats.

Regarding the prevalence of infidelity, results confirmed that the estimated prevalence was much smaller with the face-to-face interview (1.08%) than with the A-CASI mode of interview (6.13%). A difference in prevalence that is approximately six times as large by one method versus another method clearly has important implications regarding the estimated prevalence of infidelity in the United States-for example, as infidelity relates to changes in marital or family structure as well as to other public health concerns, such as the spread of sexually transmitted diseases. These findings are consistent with other studies in showing that A-CASI mode of assessment results in higher reports of sensitive behaviors (and lower reports of socially approved behaviors) relative to interviewer mode of assessment (for a review, see Schroder et al., 2003). Furthermore, there were larger differences in the prevalence estimates of infidelity between the two modes of interview for people who felt more comfortable with the A-CASI format relative to those who preferred the face-to-face format or who felt equally comfortable with the two modes of interview. Said differently, although the A-CASI mode of interview yielded higher estimates of infidelity than the face-to-face mode of interview when the sample was considered as a whole, this was particularly evident among people who felt more comfortable with the A-CASI format. As such, assuming that more accurate estimates of sensitive topics are provided by the format with greater anonymity and with higher rates of socially disapproved behaviors such as infidelity (Schroder et al., 2003), the A-CASI format is the preferred format for future research on infidelity. Similarly, the estimates of the annual prevalence of infidelity obtained from the A-CASI format (6.3%) are to be viewed as more accurate than those obtained from the face-to-face format.

Regarding the correlates of infidelity, results indicated that on the basis of both methods of assessment, the probability of sexual infidelity (a) was greater for Blacks (relative to the remainder of the sample), (b) decreased with higher religiosity, (c) increased with higher number of lifetime sexual partners, (d) was greater for women who had been sexually abused (i.e., forced to have sexual intercourse) during childhood, and (e) was greater for women who cohabited with their current partner prior to marriage (relative to women who did not cohabit). In addition, on the basis of the A-CASI mode of interview (but not the faceto-face mode of interview), probability of infidelity (a) decreased with increasing age, (b) decreased with higher education, and (c) was greater for women who were remarried (relative to women in their first marriage).

Results from this large population-based sample lend confidence to previous (albeit inconsistent) findings from studies adopting suboptimal sampling or measurement strategies. However, the current study's restriction to potential predictors assessed in the NSFG also replicates limitations in definitive interpretation of findings. For example, the pathways by which racial minority status leads to higher rates of infidelity remain unclear-with diverse potential mediators (e.g., economic disadvantage, social stressors, imbalanced gender ratios, or attitudinal differences) suggesting alternative explanatory mechanisms. Also not available for analysis as potential predictors of infidelity were factors independent of the women respondents in this study, including characteristics of their husbands, the participating affair partner, the marital relationship, or other forces in the broader psychosocial context. Future studies would do well to adopt broader measurement strategies not only reaching beyond the individual, but also extending beyond prevalence to examine factors potentially contributing to maintenance of or recovery from infidelity (Allen et al., 2005).

Several predictors replicated in this study across interview format (i.e., lifetime sexual partners, premarital cohabitation, and religiosity) suggest a broader construct of "traditionality" potentially lowering the disposition to infidelity. Although various premarital interventions and relationship enhancement programs target conflict resolution, emotional expressiveness, and partner support skills, it's not clear whether such programs need to incorporate components specifically addressing attitudinal or other cognitive factors in order to influence decisional processes related to infidelity.

Although the correlates of infidelity were similar for both modes of interview, the magnitude of the association was significantly different for four of the nine assessed variables. Specifically, the strength of the association significantly differed between the face-to-face and A-CASI assessments of infidelity for education, ethnicity, lifetime sexual partners, and premarital cohabitation. To illustrate the magnitude of this difference, based on the exponent of the regression coefficient (i.e., the odds ratio), one would conclude that premarital cohabitation was associated with a 5.2-fold increased odds of sexual infidelity based on the face-to-face data compared with only a 1.5-fold increased odds based on the A-CASI data, which represents a clinically as well as statistically significant difference between the two modes of interview. Thus, the fact that infidelity has been assessed using different methods across different studies may help to explain the inconsistent findings across existing studies. For example, if the current data obtained from the two modes of interview had been reported in two separate studies, three predictors would have been significant in one study but not the other, and the magnitude of the effects for four of the predictors would have been significantly different between the two studies. As such, the present findings regarding significant differences in the magnitude of the association between predictors and infidelity underscore the importance

of consistent use of assessment methods across studies if a replicable set of predictors of infidelity is to be identified.

To the best of our knowledge, this is the first study that evaluated whether a history of childhood sexual abuse (i.e., forced sexual intercourse) was associated with probability of engaging in sexual infidelity. On the basis of prior research regarding effects of childhood sexual trauma, cogent hypotheses could be advanced for a history of forced intercourse contributing to either higher or lower rates of infidelity in subsequent relationships. Results from the present study indicated that a history of forced sex during childhood was associated with an increased risk for sexual infidelity; compared with those reporting no history of forced sex, women who reported a history of childhood sexual abuse were 2.9 or 4.4 times more likely to have engaged in sexual infidelity during the past year, on the basis of A-CASI or face-to-face formats, respectively.

Several factors may contribute to this finding. First, past research has shown that sexual dissatisfaction in marriage is associated with greater desire for (Prins, Buunk, & VanYperen, 1993) and greater likelihood of (Waite & Joyner, 2001) sexual infidelity. Insofar as sexual abuse has been shown to result in lower sexual satisfaction (Finkelhor, Hotaling, Lewis, & Smith, 1989), this may help to account for the current finding that childhood sexual abuse was associated with increased probability of infidelity through the pathway of sexual dissatisfaction or other aspects of respondents' sexual relationships, such as sexual difficulties (for a review, see DiLillo, 2001; Rumstein-McKean & Hunsley, 2001). Furthermore, childhood sexual abuse has been hypothesized to result in sexualization of all relationships (Finkelhor & Browne, 1985), which may serve to increase the likelihood of other kinds of relationships (e.g., friendships) turning into sexual relationships. Moreover, childhood sexual abuse may have more generalized adverse effects on intimate relationships-for example, through issues of trust or difficulties in emotion regulation. Insofar as sexual abuse is associated with increased likelihood of experiencing relationship problems (for reviews, see DiLillo, 2001; Rumstein-McKean & Hunsley, 2001), including marital dissatisfaction (e.g., Whisman, in press), and relationship problems are associated with increased likelihood of infidelity (Atkins et al., 2001; Previti & Amato, 2004), then it follows that childhood sexual abuse may be associated with increased probability of infidelity through the pathway of relationship problems. Given that this is the first study that we are aware of that has evaluated this association, replication is needed before firm conclusions can be drawn regarding the importance of childhood sexual abuse in predicting infidelity. Future research is also needed to identify the mediating mechanisms of this effect.

In interpreting findings from this study, it is important to consider both the strengths and limitations of the study. Strengths of the study include a large and representative sample of women, multiple predictor variables, and the opportunity to compare two modes of interview using identically worded questions for assessing infidelity. However, infidelity was measured indirectly—on the basis of respondents' reports of more than one sexual partner—and future research is needed to evaluate the association between this method and more direct methods of assessing infidelity (e.g., "Have you ever had sex with someone other than your spouse during the past 12 months?"). In addition, because the sample was limited to women, further research is needed to determine whether the prevalence and correlates of infidelity similarly vary as a function of interview modality for men. Furthermore, the sample was a community sample, and future research is needed to determine whether reports of infidelity among people in treatment differ depending upon method of infidelity assessment. The results from such a study could have important clinical implications insofar as they could address questions regarding how best to assess for infidelity in clinical practice (Whisman & Wagers, 2005). In addition, it should be noted that the A-CASI mode of interview always followed the face-to-face interview; therefore, the possibility remains that ordering effects could have contributed to the current findings. Counterbalancing the order in which the interviews are presented would help to ensure that results attributed to mode of interview are not due to order effects. Finally, although we were able to evaluate several predictors of infidelity, we were limited by the constructs included in the survey used in the NSFG. As such, there are other variables that have been shown to predict probability of infidelity that were not included in this study (for a review, see Allen et al., 2005), and further research is needed to determine whether the magnitude of associations between these variables and probability of infidelity differs across methods of assessment.

In summary, findings from this study indicate that the prevalence and correlates of infidelity among married women differ depending upon whether the assessment of infidelity is based on face-to-face interview versus computer-assisted self-report-an effect likely due, at least in part, to differences in social desirability and impression management that exist between the two methods of assessment. Continued research on the methodologies for assessing infidelity, as well as for identifying risk and protective factors for infidelity, should aid in increasing our understanding, and ultimately the prevention and treatment, of sexual infidelity in romantic relationships. Furthermore, given that the A-CASI method of assessment was concluded to be more accurate in measuring infidelity on the basis of higher rates of infidelity using this method, an important topic for future research would be to conduct more direct tests of the accuracy of reports of infidelity gathered from different methods. For example, studies could evaluate the accuracy of reports of infidelity through such procedures as comparing the test-retest reliabilities for reports obtained via differing methods of assessment to determine whether certain methods are more replicable and therefore more accurate than other methods (Schroder et al., 2003). Our findings on the prevalence and correlates of infidelity may also have important implications for assessing other sensitive or socially undesirable relationship behaviors, such as relationship aggression or failure to use condoms after testing positive for a sexually transmitted disease, insofar as the prevalence and correlates of such behaviors may also differ depending upon the method of assessment.

References

- Allen, E. S., Atkins, D. C., Baucom, D. H., Snyder, D. K., Gordon, K. C., & Glass, S. P. (2005). Intrapersonal, interpersonal, and contextual factors in engaging in and responding to extramarital involvement. *Clinical Psychology: Science and Practice*, 12, 101–130.
- Amato, P. R., & Rogers, S. J. (1997). A longitudinal study of marital problems and subsequent divorce. *Journal of Marriage* and the Family, 59, 612–624.
- Atkins, D. C., Baucom, D. H., & Jacobson, N. S. (2001). Understanding infidelity: Correlates in a national random sample. *Jour*nal of Family Psychology, 15, 735–749.
- Betzig, L. (1989). Causes of conjugal dissolution: A cross-cultural study. *Current Anthropology*, 30, 654–676.
- Billy, J. O. G., Tanfer, K., Grady, W. R., & Klepinger, D. H. (1993). The sexual behavior of men in the United States. *Family Planning Perspectives*, 25, 52–60.
- Bozon, M. (1996). Reaching adult sexuality: First intercourse and its implications. In M. Bozon & H. Leridon (Eds.), *Sexuality and the social sciences* (pp. 143–175). Aldershot, England: Dartmouth.
- Buunk, B. (1980). Extramarital sex in the Netherlands. *Alternative Lifestyles*, 3, 11–39.
- Cano, A., & O'Leary, K. D. (2000). Infidelity and separations precipitate major depressive episodes and symptoms of nonspecific depression and anxiety. *Journal of Consulting and Clinical Psychology*, 68, 774–781.
- Choi, K.-H., Catania, J. A., & Dolcini, M. M. (1994). Extramarital sex and HIV risk behavior among US adults: Results from the National AIDS Behavioral Survey. *American Journal of Public Health*, 84, 2003–2007.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/ correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- DiLillo, D. (2001). Interpersonal functioning among women reporting a history of childhood sexual abuse: Empirical findings and methodological issues. *Clinical Psychology Review*, 21, 553–576.
- Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, 55, 325–330.
- Finkelhor, D., Hotaling, G. T., Lewis, I. A., & Smith, C. (1989). Sexual abuse and its relationship to later sexual satisfaction, marital status, religion, and attitudes. *Journal of Interpersonal Violence*, *4*, 379–399.
- Forste, R., & Tanfer, K. (1996). Sexual exclusivity among dating, cohabiting, and married women. *Journal of Marriage and the Family, 58,* 33–47.
- Greeley, A. (1994). Marital infidelity. Society, 31(4), 9-13.
- Janus, S. S., & Janus, C. L. (1994). The Janus report on sexual behavior. New York: Wiley.
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States.* Chicago: University of Chicago Press.
- Leigh, B. C., Temple, M. T., & Trocki, K. F. (1993). The sexual behavior of US adults: Results from a national survey. *American Journal of Public Health*, *83*, 1400–1408.
- Previti, D., & Amato, P. R. (2004). Is infidelity a cause or a consequence of poor marital quality? *Journal of Social and Personal Relationships*, 21, 217–230.
- Prins, K. S., Buunk, B. P., & VanYperen, N. W. (1993). Equity, normative disapproval and extramarital relationships. *Journal of Social and Personal Relationships*, 10, 39–53.
- Reiss, I. L., Anderson, R. E., & Sponaugle, G. C. (1980). A

multivariate model of the determinants of extramarital sexual permissiveness. *Journal of Marriage and the Family, 42,* 395–411.

- Research Triangle Institute. (2001). SUDAAN user's manual, release 8.0. Research Triangle Park, NC: Author.
- Rumstein-McKean, O., & Hunsley, J. (2001). Interpersonal and family functioning of female survivors of childhood sexual abuse. *Clinical Psychology Review*, *21*, 471–490.
- Schroder, K. E. E., Carey, M. P., & Vanable, P. A. (2003). Methodological challenges in research on sexual risk behavior: II. Accuracy of self-reports. *Annals of Behavioral Medicine*, 26, 104–123.
- Smith, T. W. (1994). Attitudes toward sexual permissiveness: Trends, correlates, and behavioral connections. In A. S. Rossi (Ed.), *Sexuality across the life course* (pp. 63–97). Chicago: University of Chicago Press.
- Treas, J., & Giesen, D. (2000). Sexual infidelity among married and cohabitating Americans. *Journal of Marriage and the Family*, 62, 48–60.

- Waite, L. J., & Joyner, K. (2001). Emotional satisfaction and physical pleasure in sexual unions: Time horizons, sexual behavior, and sexual exclusivity. *Journal of Marriage and Family*, 63, 247–264.
- Whisman, M. A. (in press). Childhood traumatic life events and marital outcomes in adulthood. *Personal Relationships*.
- Whisman, M. A., Dixon, A. E., & Johnson, B. (1997). Therapists' perspectives of couple problems and treatment issues in couple therapy. *Journal of Family Psychology*, 11, 361–366.
- Whisman, M. A., & Wagers, T. P. (2005). Assessing relationship betrayals. *Journal of Clinical Psychology: In Session*, 61, 1383– 1391.
- Wiederman, M. W. (1997). Extramarital sex: Prevalence and correlates in a national survey. *Journal of Sex Research*, 34, 167– 174.

Received July 18, 2005

Revision received February 1, 2006

Accepted February 5, 2006 ■