

ORIGINAL RESEARCH—PSYCHOLOGY

Unfaithful Individuals are Less Likely to Practice Safer Sex Than Openly Nonmonogamous Individuals

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ABSTRACT

Introduction. Given the prevalence and harm of sexually transmitted infections (STIs), there is a need to examine safer sex strategies in the context of romantic relationships and extradyadic sexual encounters. Sexual infidelity is associated with a variety of detrimental psychosocial outcomes; however, little research has addressed the sexual health ramifications of sexually unfaithful partners and members of other high-risk nonmonogamous lifestyles.

Aims. To determine whether sexually unfaithful individuals or “negotiated nonmonogamous” individuals are more likely to engage in sexual health risk reduction behaviors during extradyadic encounters and with their primary partner.

Method. Data were collected via an anonymous Internet-based study. Several hundred sexually unfaithful individuals and individuals with a negotiated nonmonogamy agreement completed a sexual health questionnaire.

Main Outcomes Measures. Self-reported measures of risk reduction behaviors within the primary relationship and risk reduction behaviors during the extradyadic encounter were assessed.

Results. Sexually unfaithful participants demonstrated significantly lower rates of protective sexual health behaviors both within their primary partnerships and during their extradyadic sexual encounters. Sexually unfaithful participants were also less likely to engage in frequent STI testing, and less likely to discuss safer sex concerns with new partners.

Conclusions. These data add to the literature on the negative effects of sexual unfaithfulness. Understanding rates of nonengagement in safer sex strategies will be helpful to those who lead efforts to increase condom use and other preventive STI measures. **Conley TD, Moors AC, Ziegler A, and Karathanasis C. Unfaithful individuals are less likely to practice safer sex than openly nonmonogamous individuals. J Sex Med 2012;9:1559–1565.**

Key Words. Safer Sex Strategies; Condom Use; STI Risk; Sexual Unfaithfulness; Nonmonogamy

Introduction

Sexually transmitted infections (STIs) continue to be a major health concern in North America and throughout the world. Prominent health resources acknowledge that STIs are an epidemic with dangerous health consequences and urge immediate action to prevent the spread of these diseases [1,2]. Monogamy can be an effective method for preventing the spread of STIs; however, this method is only effective when both partners test negative for STIs and remain sexually faithful throughout the relationship. By contrast, some individuals agree to be monogamous with a

particular partner yet still have extradyadic sexual encounters (i.e., they commit infidelity or are sexually unfaithful). Estimates of infidelity (specifically, extradyadic intercourse) range from 13% to 25% among heterosexual married couples [3,4] with higher rates among cohabiting and dating couples [5,6].

Infidelity has been argued to be one of the most damaging relationship events [7]. Committing infidelity against one’s monogamous partner is associated with a variety of negative psychosocial outcomes, such as anger, loss of trust, decreased personal and sexual confidence, damaged self-esteem, and, in some cases, has triggered major

depressive episodes among offended partners [8,9]. For example, romantic partners who are sexually unfaithful are blamed for causing stressful marital problems because of their extradyadic encounter [10–12]. Moreover, infidelity often leads to the relationship ending (including divorce), and in cases where these relationships do not dissolve, they are often described as empty in quality [9,13].

Although ample research has documented the antecedents and subsequent psychosocial outcomes of infidelity [3,9,12,14–16], research examining the sexual health repercussions of engaging in extradyadic affairs is lacking. In addition to negative psychological outcomes, infidelity contributes to the likelihood of spreading STIs. Presumably, STIs would only very rarely be spread in the context of a monogamous relationship, but would occur much more frequently in the context of a relationship in which infidelity occurred, thus increasing the risk of STIs for both partners.

Although the risk of spreading STIs increases when a person is sexually unfaithful, the risk of multiple-partner exposure could be minimized if condoms and other barrier methods were used without fail. However, only a small minority of adults use condoms consistently [17,18].

When considering STI risk with infidelity, the most straightforward comparison is between sexually unfaithful relationships and monogamy. Clearly infidelity would be associated with a higher risk of STI transmission than monogamy. Other research (not specifically related to sexual unfaithfulness) has compared monogamous partners to those who are having multiple partners because they are casually dating. Typically, comparisons between monogamous individuals and individuals who have multiple sex partners (casual daters) are made to assess STI risk and condom efficacy. Research reveals that individuals in monogamous relationships are significantly less likely to use condoms than those who have multiple sexual partners [17,19–23].

Risk of contracting an STI increases when individuals in monogamous relationships are sexually unfaithful to their partners, compared to those who are sexually faithful (i.e., those who have no other sexual partners); however, no previous research has compared safer sex strategies among sexually unfaithful individuals vs. another, perhaps more appropriate comparison group—individuals who have negotiated with their partner to engage in extradyadic sex (negotiated nonmonogamous [NN] individuals). Individuals in NN relationships are considered a high-risk group by virtue of

having more than one sexual partner and represent an adequate comparison group for individuals who have engaged in extradyadic sex while in a monogamous relationship. The primary purpose of the present study is to compare sexually unfaithful partners to NN individuals to determine whether safer sex strategies differ between two groups of people who engage in sex outside of their primary relationship.

We hypothesize that sexually unfaithful individuals may actually pose a greater risk than individuals who have open agreements to be nonmonogamous. Given that sexually unfaithful individuals often do not accurately perceive the negative psychosocial ramifications for their monogamous partner, it is possible that sexually unfaithful individuals may also not fully accept the physical risks of infidelity and therefore may not employ safer sex strategies (and hence put their partners at greater risk for STIs than other high-risk nonmonogamous groups).

Aims

The primary aim of the current research was to test the hypothesis that sexually unfaithful individuals (those who commit sexual infidelity while in a monogamous relationship) would be less likely to practice safer sex strategies with their extradyadic partners than individuals who have negotiated nonmonogamy with their partners (e.g., those who engage in “swinging” or “open relationships”). The present study examined condom use, use of barrier methods, and STI screening among sexually unfaithful individuals and NN individuals in their primary romantic relationships and in their extradyadic encounters. Additionally, rates of disclosure of the extradyadic sexual encounter (which would inform partners about STI risk) among sexually unfaithful individuals and NN individuals were assessed.

Method

Eight hundred one individuals were recruited through a variety of Web sites to participate in an anonymous online study (e.g., volunteer sections of classified ads such as <http://craigslist.org>) as well as listservs and web pages specifically related to NN groups (e.g., swing_cafe, <http://openmarriagesnetwork.com>, <http://euphoria4life.com>). A short description and a link to the web-based survey were included in the recruitment message, which indicated that the study was about romantic relationships. The description indicated

that participants needed to currently be involved in a relationship and did not indicate that the study was about individuals who had engaged in extradyadic sexual encounters. There were no restrictions regarding the length of time of the romantic relationship, only that individuals who participated currently be in a romantic relationship. Additionally, NN individuals were over-recruited to participate in the study, because people in these types of relationships seem to be challenging to recruit using standard recruitment strategies, such as craigslist.org. Thus, we utilized two recruiting techniques, one that was focused on monogamous individuals and the other on NN individuals.

All participants provided informed consent to participate after reading the procedure and being assured of anonymity, as well as of the ability to discontinue the study at any time. Additionally, all data were password protected and only accessible by primary investigators. The study was approved by the University of Michigan Institutional Review Board.

Sexual unfaithfulness was defined as having vaginal sex, anal sex, genital stimulation, or using sex toys with someone other than the primary monogamous partner. Negotiated nonmonogamy was defined as having an open agreement with a primary romantic partner to engage in sexual relationships outside of the primary relationship (e.g., individuals indicated they were swingers or part of an open relationship/marriage). Notably, of the 1,647 participants who initially completed the survey, 846 individuals were excluded from the analyses because they indicated that they did not engage in any extradyadic sexual encounters. Only monogamous individuals and NN individuals who had engaged in an extradyadic sexual encounter were retained for analyses. Additionally, the most recent extradyadic sexual encounter was assessed, because research has shown that people have difficulty remembering the details of less recent sexual acts [24] and this procedure is consistent with previous research assessing safer sex behaviors such as condom use [25–27].

The statistical analyses focused on 308 individuals who had reported having extradyadic encounter while they were currently in a committed monogamous relationship (sexually unfaithful individuals), and 493 NN individuals.

Questions regarding safer sex strategies included frequency of using condoms and barrier methods during vaginal intercourse, anal intercourse, and genital touching within their primary relationship and their most recent extradyadic

encounter. Additionally, the frequencies of covering or sterilizing sex toys prior to sexual interactions were assessed between these two groups within their primary relationship and their most recent extradyadic encounter. For all questions related to safer sex strategies with both primary partner and with the most recent extradyadic sexual partner, participants used a four-point Likert scale, where 4 indicated “Always” and 1 indicated “Never.”

In addition to questions related to safer sex strategies, a question related to use of alcohol or drugs during the most recent extradyadic sexual encounter was asked; participants were provided two response options, “yes” or “no.” Additional STI prevention questions were asked related to the most recent extradyadic sexual encounter; participants were asked if (i) they had discussed STI testing; (ii) sexual partner history with the extradyadic partner; and (iii) whether or not they told their primary partner about the encounter. Participants were provided with “yes” or “no” response options. These items were included to assess other (non-barrier) STI preventive measures.

The possibility of misreporting, such as reporting greater levels of safer sex strategies because of social desirable response bias, was measured with the Marlowe–Crowne Social Desirability Scale [28]. The social desirability scale was included as a covariate in our analyses.

Statistical Analysis

Analyses of covariance (ANCOVA) were conducted to examine the differences in safer sex and STI preventative strategies among sexually unfaithful individuals and NN individuals with age and social desirability as covariates. The first ANCOVA examined whether sexually unfaithful individuals or NN individuals practice safer sex with their primary partner, and the second examined whether sexually unfaithful individuals or NN individuals practice safer sex in extradyadic sexual encounters. Data were analyzed using SPSS v. 19.0 (SPSS for Windows, Chicago, IL, USA).

Because of the comparative nature of this study, we calculated the means and standard deviations of the NN group and the sexually unfaithful group for continuous interval variables and then compared the means using ANCOVA. NN individuals in the sample were significantly older than the ostensibly monogamous group and the NN group was significantly more likely to contain nonheterosexual participants ($P < 0.001$); thus, age and sexual orientation were included as covariates (Table 2).

Table 1 Sexually unfaithful and negotiated nonmonogamous individuals and safer sex behaviors*

Safer sex behaviors with primary partner [†]	Sexually unfaithful M (SD)	Negotiated nonmonogamous M (SD)	P value
When having sexual interactions with your partner, do you use condoms for vaginal intercourse? [‡] N = 708	1.62 (1.00)	1.78 (1.16)	<i>P</i> < 0.02
When having sexual interactions with your partner, do you use condoms for anal intercourse? [‡] N = 535	1.58 (1.07)	1.99 (1.28)	<i>P</i> < 0.001
When having sexual interactions with your partner, do you use gloves for genital touching? [‡] N = 787	1.06 (0.36)	1.16 (0.50)	<i>P</i> < 0.02
When having sexual interactions with your partner, do you cover or sterilize sex toys before using them? [‡] N = 654	2.28 (1.32)	2.71 (1.26)	<i>P</i> < 0.001
Safer sex during the most recent extradyadic encounter [§]	% Reporting this behavior	% Reporting this behavior	
Were you under the influence of alcohol or other drugs at the time of the encounter? [§] N = 793	33%	21%	<i>P</i> < 0.001
Did you discuss STI testing history with the individual, or had you discussed STI testing with the individual in the past, before engaging in any sex acts? [§] N = 780	34%	63%	<i>P</i> < 0.001
Did you discuss partner history with the individual, or had you discussed partner history in the past with the individual, before engaging in any sex acts? [§] N = 801	42%	64%	<i>P</i> < 0.001
During the encounter, did you use condoms for penetrative vaginal sex? [§] N = 591	48%	66%	<i>P</i> < 0.001
During the encounter, did you use condoms for penetrative anal sex? [§] N = 263	32%	49%	<i>P</i> < 0.01
During the encounter, did you cover or sterilize sex toys before using them? [§] N = 654	30%	60%	<i>P</i> < 0.001
During the encounter, did you use gloves for genital touching? [§] N = 695	2%	8%	<i>P</i> < 0.001
Did you tell your [primary] partner about the encounter? [§]	29%	81%	<i>P</i> < 0.001

*All results considered significant if *P* < 0.05 for two tails, with a Holms sequential Bonferroni correction for experimentwise error across the analyses. For the ANCOVAs, age of respondent and sexual orientation were included as covariates

[†]The unadjusted means and standard deviations are reported

[‡]Responses ranged from "1 = Never" to "4 = Always." Response option of "5 = Not applicable/we do not engage in that activity" was also included. Those who responded that they did not engage in a particular act (and accordingly, could not practice safer sex during that act) were excluded from the analyses

[§]Response options were "yes," "no," or "can't remember." Those who responded that they could not remember were excluded from these analyses. Chi-square tests of independence were used for these analyses

Additionally, social desirability scores were initially entered as a covariate in the analyses. However, because this factor was not a significant covariate in any of the analyses, it will not be considered further. In the case of items with categorical (i.e., "yes" or "no") responses, a chi-square test was used to assess differences between groups, and percentage of "yes" responses was reported. Holms sequential Bonferroni correction was used to account for experimentwise error across the analyses and alpha was set at 0.05.

Results

Within the sample of 308 sexually unfaithful and 493 NN individuals, 52% were female. The average age was 35.8 (SD = 11.8). The majority (87%) of participants were white, 3% were African American, 3% were biracial or multiracial, 2% were Latino/a, and 2% were Asian American. The sample consisted of 49% heterosexually identified individuals, 12% homosexuals, and 39% bisexuals.

Participants reported the number of months in the past that the extradyadic incident occurred; the median was 3 months (We report the median rather than the mean because of skewed data). Results are reported in Table 1, including the means, standard deviations, and frequency of reported sexual behavior among sexually unfaithful individuals and NN individuals.

Sexual Safety Behavior with Primary Partner

With their primary partner, sexually unfaithful individuals were less likely than NN individuals to have: (i) used condoms for vaginal and anal intercourse; (ii) used gloves for genital touching; and (iii) used sex toys that were either appropriately covered or sterilized.

Sexual Safety Behavior with Most Recent Extradyadic Sexual Occurrence

During the most recent extradyadic sexual encounter, sexually unfaithful individuals were more likely than NN individuals to have been

Table 2 Sexually unfaithful and negotiated nonmonogamous individuals and demographic variables*

	Sexually unfaithful M (SD)	Negotiated nonmonogamous M (SD)	P value
Sociodemographic variables [†]			
Age N = 798	33.87 (12.31)	37.02 (11.27)	<i>P</i> < 0.01
Marlowe–Crowne social desirability scale N = 800	10.90 (1.41)	11.35 (1.43)	<i>P</i> = n.s.
Percent reporting [‡]			
Sexual orientation			
<i>P</i> < 0.01			
Heterosexual			
N (row %)	200 (65)	192 (39)	
Homosexual			
N (row %)	42 (14)	52 (11)	
Bisexual			
N (Row %)	65 (21)	248 (50)	
Gender			
<i>P</i> = n.s.			
Female			
N (row %)	166 (54)	254 (52)	
Male			
N (Row %)	141 (46)	227 (46)	

*All results considered significant if *P* < 0.05 for two tails, with a Holms sequential Bonferroni correction for experimentwise error across the analyses

[†]The unadjusted means and standard deviations are reported

[‡]Chi-square tests of independence were used for these analyses

under the influence of drugs or alcohol. Additionally, compared to NN individuals, sexually unfaithful individuals were significantly less likely to have: (i) discussed STI testing history or sexual partner history with the extradyadic partner; (ii) used condoms for vaginal or anal sex; (iii) used gloves for genital touching; and (iv) told their primary partner about the extradyadic sexual encounter.

In sum, the present study demonstrates that sexually unfaithful individuals engage in more risky sexual behaviors with extradyadic partners than individuals who have open agreements to engage in sexual nonmonogamy. These results suggest that STI risk from sexual infidelity is, in addition to being a greater risk to sexual health than monogamy, also greater than that of another high-risk group, those who participate in NN lifestyles. Sexually unfaithful individuals reported using condoms for anal and vaginal intercourse less than NN individuals as well as not properly sanitizing sex toys prior to sexual encounters. Additionally, sexually unfaithful individuals were less likely to inform their primary partner of the extradyadic sexual encounter. Sexually unfaithful individuals were also more likely than NN individuals to be under the influence of alcohol or other drugs during their most recent sexual encounter.

Discussion

In accordance with empirical research that suggests that sexually unfaithful individuals do not

perceive the negative psychosocial ramifications of infidelity for their primary partner [8,9], sexually unfaithful individuals are also more reckless with sexual health, taking fewer STI preventative measures than other risky groups. Thus, in addition to causing a host of previously established psychosocial difficulties within their romantic relationship, sexually unfaithful individuals are placing their primary sexual partner at risk for contracting STIs by employing fewer safer sex strategies and not informing their partner of their extradyadic encounter. Those who commit infidelity engage in less safer sex compared to those who participate in another risky lifestyle—negotiated nonmonogamy. These findings add to our understanding of the wide-ranging and deleterious effects of sexual infidelity on the mental, physical, and reproductive health of the individuals involved (e.g., STIs may be associated with health risks including cervical cancer, infertility, and HIV). Thus, interventions to prevent such damage are of great importance given the high rates of infidelity within monogamous relationships [3–6,29].

The current research provides suggestive evidence that people who are unfaithful to their monogamous romantic partners are perhaps riskier than prior research has ascertained. That is, the participants were not merely risky by virtue of being nonmonogamous but actually are riskier than those who participate in negotiated nonmonogamy because of their lack of safer sex behaviors.

To the authors' knowledge, this is the first study to show incremental deleterious sequelae of sexual

infidelity when directly compared to those who have negotiated a nonmonogamous relationship with their primary partner. This study is, however, not without limitations. First, a nonrepresentative sample was collected. Future research should use similar measures with a larger, more representative sample of sexually unfaithful and NN individuals.

Second, reported safer sex is only a proxy for actual measurements of safer sex strategies. Employing a more objective measure of STI preventive practices in future studies, such as the results of a battery of STI tests that might be obtained through access to medical records, or measuring biological outcomes for STIs, would be useful [30]. Similarly, the present research assessed a single sexual incident in the context of the participants' extradyadic relationships. Although assessing a single incident promotes more accurate reports of behaviors among participants [24], collecting information about participants' safer sex behaviors across time would provide more accurate information about their comprehensive safer sex strategies.

Future research should focus on the reasons why individuals who were committing infidelity were less likely to practice safer sex than a comparable high-risk group. We suggest three potential avenues for future exploration. First, sexually unfaithful individuals may experience guilt about appearing to have planned the extradyadic sexual encounter and, thus, may not have employed safer sex strategies. Perhaps, participants reasoned that it would be more difficult to explain an incident of infidelity to a partner in which safer sex precautions were taken because this would imply forethought and planning of the encounter [31,32]. This finding would be analogous to research demonstrating that adolescents who have experienced abstinence-only education (e.g., "virginity pledging") are less likely to use condoms when they do have sexual encounters [33,34], perhaps because the incorporation of condoms implies forethought about the sexual encounter.

Second, it is possible that those who are committing infidelity against their partners might be especially likely to rely on a narrative of being overcome with emotion when they participated in the extradyadic encounter. That is, because they recognize that they are doing something against the will of their partner, they may justify these behaviors with the idea that they simply could not control themselves. Thus, future research could assess the extent to which participants felt overcome with passion in the context of the encounter and whether this variable mediates the relationships between

extradyadic context (infidelity vs. NN) and safer sex behaviors. In sum, sexually unfaithful participants may have perceived that they could forestall the most negative ramifications of their behavior by denying responsibility and forethought.

Finally, sexually unfaithful individuals may not recognize that they are at risk for contracting or spreading STIs. People who commit infidelities often consider themselves monogamous people, even though they are engaging in nonmonogamous activities [35], and may therefore justify their lack of safer sex behaviors with the idea that they are not the type of people who need to use condoms. Similarly, people in monogamous relationships typically do not consider it necessary to practice safer sex [26,36,37]. Therefore, sexually unfaithful individuals may reject safer sex strategies because of the presence of a stable relationship with a regular sexual partner. Future research could identify the extent to which considering oneself a fundamentally monogamous person and/or a committed partner (regardless of current behaviors) is associated with safer sex outcomes. Another area of research that could be explored is the individuals' comfort and ability to communicate about sex, safer sex strategies, and, in general, sexual health with their primary partner as well as any secondary/non-main partners.

Conclusion

The present findings add to the body of evidence demonstrating that infidelity is associated with a host of negative outcomes. In particular, this research shows that sexually unfaithful individuals are not only more likely to cause harm to their primary partners by engaging in unsafe extradyadic sex, they are also less likely than another comparably high-risk group—those who have explicitly agreed to nonmonogamy—to practice safer sex, both with their extradyadic partners and in their primary partnerships. The implications for this research extend to health practitioners, who may consider encouraging their monogamous patients to discuss specific definitions of monogamy and to form a plan for coping with lapses from these agreements. Such a plan may facilitate sharing of appropriate health information among members of the couples and thus prevent further spread of STIs.

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