

Health, Anticipated Partner Infidelity, and Jealousy in Men and Women

Steven Arnocky¹, Marlena Pearson¹, and Tracy Vaillancourt²

Abstract

Health has been identified as an important variable involved in mate choice. Unhealthy organisms are generally less able to provide reproductively important resources to partners and offspring and are more likely to pass on communicable disease. Research on human mate preferences has shown that both men and women prefer healthy mates. Yet to date, little research has examined how health relates to one's own mating experiences. In the present study, 164 participants (87 women) who were currently in heterosexual romantic relationships completed measures of frequency and severity of health problems, anticipated partner infidelity, and intensity of jealousy felt in their current relationship. Mediation analyses showed that health problems predicted greater anticipated partner infidelity and jealousy scores and that anticipated partner infidelity mediated the links between health and jealousy for both frequency and severity of health problems, controlling for both sex and relationship duration. These findings suggest that unhealthy people perceive themselves to be at a mating disadvantage, experiencing associated differences in perceptions and emotions surrounding their romantic partners' fidelity.

Keywords

health, mate selection, mate choice, infidelity, jealousy

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Introduction

Researchers have long recognized the importance of health to reproductive fitness (Drickamer, Gowaty, & Holmes, 2000; Hamilton & Zuk, 1982; Westneat & Birkhead, 1998; Zahavi, 1975). Healthy organisms are less likely to pass communicable disease on to a mating partner and offspring (Borgia, 1986) and may be better able to provide resources, as well as good genes and disease resistance to the next generation, compared to those who are less healthy (Hamilton & Zuk, 1982; Tybur & Gangestad, 2011). Men and women explicitly prefer to mate with healthy members of the opposite sex (Buss et al., 1990). Having a romantic partner who is in poor health may be linked to infidelity (Rolland, 1994) or defection from the relationship (e.g., Amato & Previti, 2003; Walsh, Manuel, & Avis, 2005). Less healthy men and women may therefore be at a mating disadvantage; yet to date, there is a paucity of research exploring how individuals' own perceived health status relates to their mating experiences. To address this gap in knowledge, we explored whether less healthy individuals perceived their romantic partners to be more likely to engage in sexual infidelity and whether they exhibited stronger feelings of romantic jealousy than healthier individuals.

Health and Its Implications for Reproductive Fitness

Health has been broadly defined as the absence of, and resistance to, pathogens, diseases, and injuries, along with the ability to perform physiological processes that influence reproductive fitness (Tybur & Gangestad, 2011). An individual's reproductive success can be impacted by the health of their mating partner for a variety of reasons (Adamo & Spiteri, 2009; Gangestad & Simpson, 2000; Miller & Todd, 1998; Thornhill & Gangestad, 1993, 1999; see Tybur & Gangestad, 2011 for review). First, an unhealthy mate may be compromised in their ability to provide reproductively relevant resources or direct parental care to offspring (Roberts & Little, 2008). This is particularly important among species where

¹ Department of Psychology, Nipissing University, North Bay, Ontario, Canada

² Faculty of Education and School of Psychology, Faculty of Social Sciences, University of Ottawa, Ottawa, Ontario, Canada

Corresponding Author:

Steven Arnocky, Department of Psychology, Nipissing University, North Bay, Ontario, Canada.

Email: stevena@nipissingu.ca



offspring spend considerable time dependent upon parental care (Tybur & Gangestad, 2011). Humans have a lengthy gestation period followed by years of (often biparental) dependency (Marlowe, 2000), and parental health problems can undermine the capacity to provide substantive care for offspring during these developmental periods (Allaire, 1988; Altschuler & Dale, 1999; Drotar, 1994; Finney & Miller, 1999; Thorne, 1990). Second, to the extent that health proneness is heritable, such as in the case of disease resistance, or in the absence or presence of some genetic disorders (e.g., Dawkins et al., 1999), individuals who mate with a healthy partner are more likely to produce healthy offspring (Tybur & Gangestad, 2011). Third, close mating contact entails an inherent risk of contracting an infectious disease from one's partner or of that disease being contracted by the offspring (Able, 1996). This risk exists in both short-term and long-term mating. For instance, in humans, various infectious diseases have been found to transmit sexually or via close interpersonal contact (see Anderson & May, 1991 for review). Even brief interpersonal contact (such as in short-term mating) with a partner who is presently infected can place an individual at risk of acquiring illness, depending on the nature of its transmission. Moreover, in the context of long-term mating, an individual who is not presently infected, but is susceptible to future infection, also increases the prospective health risk for their mate and mutual offspring. Contracting infectious disease can then have significant implications for one's reproductive fitness. For example, in humans, some infectious diseases can lead to sterility, infertility, physical incapacity, or death (see Boutayeb, 2010; Weström, 1994). Given the multifarious implications of health to reproductive success, Loehle (1997) has argued that choosiness of a mate may be rooted in "a general tendency to avoid sick individuals" (p. 231).

Mate Selection and Health

There exists both indirect and direct evidence that mate selection hinges in part upon health. Indirect evidence is largely based on the hypothesis that certain morphological features may be considered preferable to mates because they indicate increased viability, an indirect benefit that may be passed on to offspring (Gangestad & Thornhill, 1998; Hamilton & Zuk, 1982; Thornhill & Gangestad, 1999). In cases where a trait is particularly costly to produce, for instance in terms of immunosuppression or expenditure of energetic resources required for its production or maintenance, that feature would then serve as an honest signal of mate quality that is often best exhibited by those who are in good health (Zahavi, 1975). To illustrate this point, consider the example of facial symmetry, which has been identified as a ubiquitous characteristic of physical attractiveness in humans (Grammer & Thornhill, 1994; see also Langlois et al., 2000; cf. Van Dongen, 2012). Importantly, the link between facial symmetry and attractiveness is mediated by other individuals' *judgments of the targets health* (Jones et al., 2001). This suggests that individuals may utilize the morphological feature of facial symmetry in order to infer aspects of a potential mating partner's health (see Fink, Neave, Manning, &

Grammer, 2006; Rhodes et al., 2001, 2007; Simmons, Rhodes, Peters, & Koehler, 2004; Zaidel, Aarde, & Baig, 2005). Indeed, these features may provide accurate information to the perceiver—some studies have linked facial symmetry to individuals' mental and physical health status (Shackelford & Larsen, 1997), and individuals with attractive faces have been shown to live longer than those with unattractive faces (Henderson & Anglin, 2003).

Preferences for features that indicate a potential mate's health may become stronger under conditions where health threats are a particularly salient feature of the environment. For example, men's facial masculinity has been linked to long-term health quality (Thornhill & Gangestad, 2006). It has been demonstrated that women prefer partners who exhibit such facial cues to good health more strongly in cultures where poor health is particularly detrimental to survival (DeBruine, Jones, Crawford, Welling, & Little, 2010). The authors suggested that this proclivity may reflect a trade-off in their mate preferences, whereby women are willing to sacrifice other qualities in a mate (such as paternal investment) for the sake of producing healthier offspring. Similar preferences for good-gene indicators have been demonstrated to increase alongside women's probability of conception (Gangestad & Thornhill, 1998). Ultimately, the phenotypic characteristics that comprise mate preferences can have direct fitness-related implications. This has been experimentally demonstrated using a rodent model by Raveh and colleagues (2014) who found that female house mice (*Mus musculus musculus*) that were mated with a preferred male produced offspring that were more likely to survive an experimentally induced infection, compared to those offspring sired by a nonpreferred male.

Men and women have also been shown to hold direct implicit and explicit preferences for healthy others. For instance, Olsson et al. (2014) found that participants rated the scent of other individuals who had been experimentally injected with an endotoxin, which activated an immune response, as being less pleasant compared to controls (Olsson et al., 2014). Moreover, women have been found to prefer the odor of men who are dissimilar in their major histocompatibility complex (i.e., human leukocyte antigen, HLA), and these preferences might reduce the likelihood of contracting disease from a partner and may allow for a more prolonged period of parental care (Roberts & Little, 2008).

More explicitly, Buss and colleagues (1990) reported that across 37 cultures from around the world, men and women identified health as an important characteristic in a mate (see also Shackelford, Schmidt, & Buss, 2005). Apostolou (2008) similarly showed that both men and women rank health as the fourth most important trait (of 18) in a marriage partner and that men and women rank health as the third most important trait (again, of 18) in a partner for their sons and daughters. The human tendency to avoid disease has since been linked to a host of emotional and behavioral characteristics, including disgust (e.g., Curtis, de Barra, & Aunger, 2011), ethnocentrism (Navarrete & Fessler, 2006), and prejudice and avoidance of those who are physically disabled (Park, Faulkner, & Schaller, 2003).

Taken together, it is evident that individuals who are in poor health are at a mating disadvantage and as a result should be expected to differ in their relationship functioning relative to their healthier conspecifics. In particular, it is anticipated that self-perceived health status will predict perceptions of the likelihood of partner infidelity as well as a corresponding emotional response of jealousy.

Likelihood of Infidelity and Romantic Jealousy

One possible correlate of poor health is a greater perceived likelihood of a partner's infidelity and experiences of jealousy within the romantic relationship. For both men and women, a romantic partner's infidelity can detract from reproductive fitness. Concealed ovulation and the internal fertilization process of human sexual reproduction lead to paternity uncertainty among men, whereby a partner's infidelity introduces the potential for genetic cuckoldry and the misdirection of parental resources toward another man's offspring (Buss, 2013). For women, conversely, a man's infidelity increases the possibility of a loss of resources, commitment, or parental assistance (Buss & Shackelford, 1997; Daly, Wilson, & Weghorst, 1982).

In both men and women, concerns regarding partner sexual infidelity often give rise to negative emotions (Arnocky, Sunderani, Gomes, & Vaillancourt, 2015) including romantic jealousy (Daly et al., 1982; Daly & Wilson, 1988; see also Buss, 1988, 2000; Buunk & Bringle, 1987; Daly et al., 1982; Easton, Schipper, & Shackelford, 2007; Symons, 1979). For example, Haselton and Gangestad (2006) found that men's jealousy increased alongside risk of their partner's extrapair flirtation. Interestingly, in the same study, jealousy and mate guarding were most likely to occur among men who were low on good-gene indicators (Haselton & Gangestad, 2006). This finding converges with those of other studies showing that perceptions of partner infidelity and jealousy correlate negatively with mate value indices in both men and women alike (e.g., Arnocky, Sunderani, Miller, & Vaillancourt, 2012; Brown & Moore, 2003; Buss & Shackelford, 1997; Sidelinger & Booth-Butterfield, 2007). For instance, Buunk, Park, Zurriga, Klavina, and Massar (2008) found that a morphological feature of men's mate value (height) was associated with less expressed jealousy among men. Similarly, Arnocky, Sunderani, Miller, and Vaillancourt (2012) found that women who perceived themselves as being more physically attractive relative to their same-sex peers were less romantically jealous than those believing themselves to be less physically attractive. Brown and Moore (2003) found that in both men and women, deviation from bilateral symmetry across 11 morphological traits (i.e., fluctuating asymmetry) predicted greater romantic jealousy in both men and women. Moreover, in a sample of both men and women, Sidelinger and Booth-Butterfield (2007) found that individuals with lower relative mate value were more likely to experience romantic jealousy than their partners. Considering the aforementioned literature describing poor health as a variable that detracts from one's value as a mate, it should be expected that poor health would predict greater

perceived likelihood of partner infidelity and more expressed jealousy within the relationship.

The Present Study

Blow and Hartnett (2005) suggested little research exists with respect to health in relation to a partner's infidelity. The goal of the present study was to explore relationship functioning relative to self-reported health symptoms. Self-perceived health status was informed by the degree of overt somatic symptoms and illness episodes that were evident to the individual (Piko, 2000). Self-perceived health has been shown to accurately predict health service use and long-term mortality (Idler & Benyami, 1997; Miilunpalo, Vuori, Oja, Pasanen, & Urponen, 1997). Given that poor health is generally perceived as an undesirable characteristic in a mate and therefore presents a threat to one's reproductive fitness, we expected that men and women who believe they suffered from poor health in terms of frequency and severity of somatic symptoms would exhibit stronger feelings of romantic jealousy (Hypothesis 1), as well as increased perceived likelihood of partner sexual infidelity (Hypothesis 2), and that perceived partner sexual infidelity would mediate the health—jealousy link (Hypothesis 3). As an initial step in this research program, we focused on sexual infidelity (as opposed to emotional infidelity), given findings suggesting that both men and women report feeling more upset, hurt, and anger surrounding sexual versus emotional transgressions (Sabini & Green, 2004) and that sexual infidelity may be more likely to evoke jealousy relative to emotional infidelity in general (Nannini & Meyers, 2000). All analyses controlled for sex, given recent findings that men may overperceive partners' infidelity intentions (Goetz & Causey, 2009), as well as relationship duration, given that previous research has shown individuals involved in longer term relationships exhibit stronger feelings of jealousy relative to those in less-established relationships (Rydell, McConnell, & Bringle, 2004).

Materials and Method

Procedures and Participants

This research was approved by the Research Ethics Board at the University of Ottawa. Participant recruitment stations were set up in common areas on campus. Potential participants were told that criteria for participation involved being in a heterosexual dating relationship (long distance and marriage relationships were ineligible). Participants provided informed consent and were given a sealed questionnaire package to take home and complete at their convenience. Participants then returned their completed packages to the research laboratory. In total, 200 questionnaires were handed out, equating to an 82% response rate. Participants were compensated with \$20 CAD. Our sample was comprised of 164 participants (77 men and 87 women) between the ages of 18 and 30, with a mean age of 22.43 ($SD = 3.59$). Participants were primarily of Caucasian descent (87%), followed by Southeast Asian (4%), Arab/West

Table 1. Descriptive Statistics for Study Variables.

	M		SD		Min.		Max.	
	Women	Men	Women	Men	Women	Men	Women	Men
1. Relationship duration	3.52	3.74	1.09	1.22	1.00	1.00	5.00	5.00
2. Frequency of health problems	50.01	46.58	7.20	6.95	31.00	31.00	70.00	63.00
3. Severity of health problems	42.02	38.19	7.55	6.49	29.00	29.00	68.00	56.00
4. Anticipated partner infidelity	2.45	2.41	1.96	1.70	1.50	1.50	7.00	7.00
5. Jealousy	2.72	2.45	0.69	0.61	1.60	1.33	4.60	4.60

Asian (4%), Asian (3%), South Asian (1%), and Latin American (1%). Participation required that individuals were currently involved in a heterosexual dating relationship at the time of collection. Participants also reported on the duration of their current relationship using a 5-point Likert-type scale (1 = *less than 2 months* and 5 = *greater than 2 years*). Average dating length was between 6 months and 1 year.

Frequency and Severity of Health Problems

Participants completed the Health Symptoms Survey (Knack, Jensen-Campbell, & Baum, 2011; Knack, Iyer, & Jensen-Campbell, 2012). The measure assesses how frequently and severely individuals experience various physical health problems such as stomach aches, flu, mouth sores, fatigue, chest pain, diarrhea, muscle aches and pains, headache or migraine, coughing, and fever. The measure has previously been associated with other health-related factors such as mental health problems (e.g., depression symptoms; Guarneri-White, Jensen-Campbell, & Knack, 2015), personality factors associated with health problems (hurt proneness and pain catastrophizing; Knack et al., 2012) as well as altered hypothalamic–pituitary–adrenal axis functioning (Knack et al., 2011), and behavioral issues previously associated with poor health outcomes (peer victimization; Knack et al., 2012). Twenty-six Likert-type questions anchored at 1 = *not at all* and 4 = *all the time* assessed the frequency of symptoms are summed to create a frequency score ($\alpha = 0.82$). An additional 26 Likert-type questions anchored at 1 = *does not hurt at all* and 4 = *unbearable pain* are summed to assess the severity of the same set of physical health symptoms ($\alpha = .87$).

Anticipated Partner Infidelity

Anticipated partner infidelity was assessed using a measure developed by Goetz and Causey (2009). The measure consists of the following 2 items: (1) “How likely do you think it is that your current partner will in the future, have sexual intercourse with someone other than you, while in a relationship with you?” and (2) “Please indicate your agreement or disagreement with the following statement: ‘My partner will probably be sexually unfaithful to me in the future.’” Participants responded using a 7-point Likert-type scale anchored at 1 = *not at all likely/completely disagree* and 7 = *extremely likely/completely agree*. In the present study, the items were statistically significantly

correlated at the bivariate level, $r = .91$, $p < .001$, and were subsequently averaged to create a composite for anticipated partner infidelity.

Jealousy in the Romantic Relationship

Jealousy was measured using items developed by Buunk (1997). The measure contains 15 items addressing the intensity of participants’ anticipated negative emotional response to a partner’s extradyadic sexual behavior, participant’s tendency to prevent contact between the partner and the members of the opposite sex as well as one’s anxiety and worry surrounding a partner’s extradyadic sexual contact. Items were scored on a 5-point Likert-type scale. Example items include “I don’t want my partner to meet too many people of the opposite sex,” “I demand from my partner that (s)he does not look at other (men)women,” “I am concerned about all the things that could happen if my partner meets members of the opposite sex,” and “I am concerned about my partner finding someone else more attractive than me.” All items were summed and averaged. In the present study, the overall jealousy measure showed good internal consistency ($\alpha = .93$). See Table 1 for descriptive statistics for each measure.

Results

Analytic Approach

We anticipated that self-reported indices of health status (frequency and severity of health problems, respectively) would predict experiences of anticipated partner infidelity and romantic jealousy, controlling for sex (total effects model). We further expected that anticipated partner infidelity would mediate the relationship between poor health and jealousy (mediation model). Specifically, the mediated effect is the extent to which the relation between the predictor variable (health) and the dependent variable (jealousy) is reduced upon inclusion of the mediating variable (anticipated partner infidelity; Baron & Kenny, 1986). In order to test these hypothesized total and mediation effects, we utilized bootstrapping procedures as outlined by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) using the INDIRECT macro for SPSS 22 (Preacher & Hayes, 2008). Preacher and Hayes (2008) suggest the bootstrapping method is superior to alternative methodologies because it is more robust in dealing with assumptions of

Table 2. Intercorrelations Among Study Variables.

	1	2	3	4	5
1. Sex (0 = women, 1 = men)	—				
2. Relationship duration	-.18*	—			
3. Frequency of health problems	-.24**	.13	—		
4. Severity of health problems	-.26**	.12	.68**	—	
5. Anticipated partner infidelity	.02	.21**	.25**	.22**	—
6. Jealousy	-.21**	.16	.21**	.24**	.21**

* $p < .05$ (two-tailed). ** $p < .01$ (two-tailed).

normality as well as issues of Type 1 error (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). For each analysis, 1,000 bootstrapping samples were derived. All coefficients reported herein are unstandardized, as the preferred metric in modeling mediation effects (Hayes, n.d.). The strength of the mediation effect is tested using confidence intervals, where an indirect effect is statistically significant ($p < .05$) if zero is outside the reported end points. Table 2 provides intercorrelations among study variables.

Frequency of Health Problems, Anticipated Partner Infidelity, and Jealousy

We first examined the total effects model for frequency of physical health problems as a predictor of jealousy. Results showed that the relation between frequency of health problems and jealousy was statistically significant in the expected direction ($b = 0.02, p = .04$), such that poor health predicted more jealousy, supporting Hypothesis 1. The effect of the control variable, sex, was also statistically significant ($b = -0.20, p = .05$) such that women reported somewhat higher jealousy scores compared to men. The effect of the control variable, relationship duration, was also statistically significant ($b = 0.09, p = .03$) such that those who had been dating longer reported stronger feelings of jealousy. The total effects model of health frequency and sex accounted for 8% of explained variance in jealousy, R^2 adjusted (R^2 adj) = .08, $F(3, 159) = 4.69, p = .003$.

We next examined whether anticipated partner infidelity would mediate the relationship between frequency of health problems and jealousy. Results showed that frequency of health problems statistically significantly predicted anticipated partner infidelity ($b = 0.05, p = .001$), supporting Hypothesis 2. Moreover, anticipated partner infidelity statistically significantly predicted jealousy, $b = 0.12, p = .001$. When anticipated partner infidelity was included in the model, results showed that the direct effect of frequency of health problems and jealousy was statistically significantly reduced, ($b = 0.01$, not statistically significant [ns]), bootstrapping: 95% Lower Limit (LL) = 0.003, 95% Upper Limit (UL) = 0.012, indicating a full (i.e., reduced to nonsignificance) mediation of the effect, supporting Hypothesis 3. The indirect (i.e., mediation) model accounted for 13% of explained variance in jealousy, R^2 adj = .13, $F(4, 158) = 5.23, p = .001$, see Figure 1.

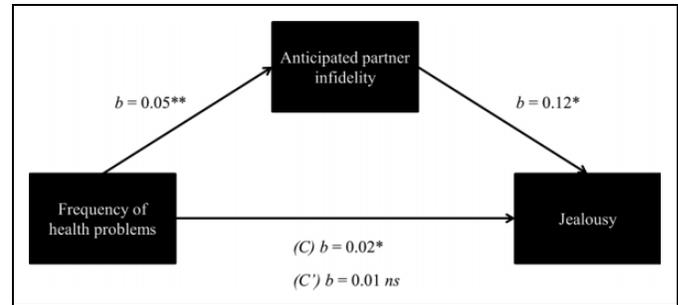


Figure 1. Anticipated partner infidelity mediates the relation between frequency of health problems and jealousy. Unstandardized coefficients are shown. * $p < .05$, ** $p < .01$.

Severity of Health Problems, Anticipated Partner Infidelity, and Jealousy

Findings were similar for the relation between the severity of participants' health problems and their perceptions of partner infidelity and expressions of jealousy within the romantic relationship. Results showed that the relation between severity of health problems and jealousy was statistically significant in the expected direction ($b = 0.02, p = .01$) such that poor health predicted more jealousy, supporting Hypothesis 1. The effect of the control variable, sex, was not statistically significant ($b = -0.20, ns$). However, the effect of the control variable, dating length, was statistically significant ($b = 0.10, p = .03$) such that individuals who were in longer relationships expressed more jealousy. The total effects model for severity of health problems accounted for 9% of explained variance in jealousy, R^2 adj = .09, $F(3, 159) = 4.93, p = .002$.

We next examined whether anticipated partner infidelity would mediate the relation between severity of health problems and jealousy. Results showed that severity of health problems statistically significantly predicted anticipated partner infidelity ($b = 0.04, p = .002$), supporting Hypothesis 2. Moreover, anticipated partner infidelity statistically significantly predicted jealousy, $b = 0.13, p = .006$. With anticipated partner infidelity included in the model, results showed that the direct effect of severity of health problems and jealousy was statistically significantly reduced, ($b = 0.01, ns$), bootstrapping: 95% LL = 0.001, 95% UL = 0.011, indicating a full (i.e., reduced to nonsignificance) mediation of the effect, supporting Hypothesis 3. The indirect (i.e., mediation) model accounted for 14% of explained variance in jealousy, R^2 adj = .14, $F(4, 158) = 5.83, p = .001$, see Figure 2.

Discussion

Mating with an unhealthy partner can pose various problems to one's reproductive fitness. These problems can include an unhealthy partner's reduced capacity to provide resources and parenting assistance, as well as increased risk of contracting a communicable disease, and of the unhealthy partner passing heritable health-related conditions on to offspring (see Tybur & Gangestad, 2011 for review). In spite of much research

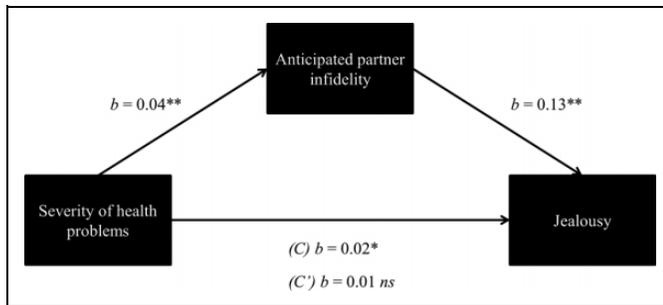


Figure 2. Anticipated partner infidelity mediates the relation between severity of health problems and jealousy. Unstandardized coefficients are shown. * $p < .05$, ** $p < .01$.

highlighting the importance of health to mating, little work has explored whether health status impacts actual relationship functioning among men and women (e.g., Blow & Hartnett, 2005). To address this gap in knowledge, we examined frequency and severity of health problems in relation to perceived partner infidelity and romantic jealousy. We tested three hypotheses in an undergraduate sample of men and women who were currently in heterosexual romantic relationships: poorer health status would be associated with more expressed jealousy (Hypothesis 1); poor health status would be associated with greater anticipated partner infidelity (Hypothesis 2); and anticipated partner infidelity would mediate the relation between poor health status and romantic jealousy (Hypothesis 3).

Results showed that both frequency and severity of health problems were associated with the expression of more jealousy among men and women in their romantic relationships. Frequency and severity of health problems also predicted a heightened perception that participants' current partners would become involved in infidelity. This finding makes sense, given that individuals can benefit from avoiding or discontinuing mating with someone in poor health (Loehle, 1997; Tybur & Gangestad, 2011)—ancestors who exhibited an aversion to unhealthy partners would likely have been more reproductively successful than those without such an aversion. Differential reproductive success based upon health indices have been suggested to have shaped current mating preferences. Modern humans have been shown to prefer partners who best display cues of good health, such as physical attractiveness (Lukaszewski, Larson, Gildersleeve, Roney, & Haselton, 2014), and both men and women explicitly prefer having healthy mating partners (Buss et al., 1990). These results are consistent with the notion that unhealthy men and women are (or perceive themselves to be) at a mating disadvantage.

Given that for an unhealthy individual, there are a greater proportion of healthier intrasexual (same-sex) rivals potentially available to his or her partner, it is not surprising that these unhealthy men and women would simultaneously perceive a greater threat to the relationship as well as experience an activation of emotions such as romantic jealousy in the face of this perceived threat. Jealousy has been proposed by evolutionary psychologists to function as an emotional mechanism that

motivates a response to a perceived threat to a valued relationship (Buss, 2000; Daly et al., 1982). Jealousy is triggered by perceptions or cues to a partner's infidelity, an adaptive problem with consequences that can include loss of the partner, misdirection of resources as well as the potential loss of status and reputation (Buss, 2000). According to this conceptual framework, the relation between poor health and jealousy should be mediated by anticipated partner infidelity. In other words, poor health correlates with increased risk that a partner will be unfaithful, which, in turn, accounts for a statistically significant proportion of the variance in the dependent variable, jealousy. Results confirmed this hypothesis, showing that for both the relations between both frequency and severity of self-reported health problems and jealousy, was mediated by the perceived likelihood that one's partner would engage in sexual activity with an intrasexual rival.

The present study was limited in its assessment of health as self-reported frequency and severity of somatic symptoms (fatigue, nausea/vomiting, weight loss, coughing/sneezing, dizziness, chest pain, and lethargy, etc.), with the expectation that the saliency of symptoms to the individual would correlate with relationship functioning. It would be interesting to extend this research to examine whether overtly recognizable symptoms (skin lesions or sores, coughing, weight gain, or loss) are more strongly linked to a partner's attraction, infidelity intentions, and relationship commitment compared to more covert symptoms or health issues that may not be recognizable by one's partner. Self-reported health problems in terms of the degree of overt somatic symptoms and illness episodes that are evident to the individual (Piko, 2000) have been linked to both actual health service use and long-term mortality risk, suggesting that self-reports of health are at least somewhat accurate in assessing actual health (Idler & Benyami, 1997; Miilunpalo et al., 1997). However, future research might examine more objective health status indicators, such as markers of immune system function and response (e.g., immunoglobulins) and their links to individuals' relationship functioning and mating success.

Another potential limitation is our reliance on an undergraduate student sample. Modern Western medical practices have improved life expectancy and health status. The health of young Canadian adults may not be representative of those living in other cultures, let alone of the health of those living in an ancestral environment. Given that previous studies have shown that individuals' mate preferences vary on a larger scale cross culturally according to health risk (DeBruine et al., 2010), one might similarly expect the effects of self-perceived health on one's own experiences with anticipated partner infidelity and jealousy to become more pronounced in a larger and more diverse sample. Future research might consider replicating these findings in regions with greater health risk.

Finally, our results showed that self-reported poor health accounted for a relatively small amount of variance in participants' jealousy (approximately 13-14%). Factors outside an individual's own mate value, such as the availability of alternative mating opportunities in the local environment (Arnocky, Ribout, Mirza, & Knack, 2014), as well as relationship commitment to

the current partner (Rydell et al., 2004), can also incite romantic jealousy. Future research would benefit from examining these environmental and relationship quality factors in conjunction with health and other mate value indices in providing a clearer depiction of the multifarious predictors of jealousy. Moreover, future research would also benefit from exploring how various indices or components of mate value interact in predicting mating behavior and jealousy. For instance, are men who are high in status, but who exhibit signs of poor health, less jealous than those low in both qualities? Future research might also consider an individual's health relative to their romantic partner. It is possible that those who perceive themselves as being unhealthy, and their partners as being healthy, might be at particular risk of the expression of jealousy compared to those whose partners are also unhealthy. This would map on to extant findings showing that one's mate value, relative to their partner, often predicts jealousy and mate-retention efforts (e.g., Sidelinger & Booth-Butterfield, 2007). Research has highlighted the fact that infidelity is not confined only to sexual acts and that emotional infidelity can also induce jealousy in romantic partners (Buss, 2013; Buss, Larsen, Westen, & Semmelroth, 1992). We expect that individuals who perceive that they are unhealthy would also respond to perceived emotional infidelity with more intense jealousy. Given that some findings suggest that women may experience jealousy more strongly than men in response to a partner's emotional infidelity (see Pietrzak, Laird, Stevens, & Thompson, 2002), future research might consider whether these sex differences hold when accounting for individuals' self-perceived health (i.e., perhaps unhealthy men and women would score similarly high on measures of jealousy in response to cues to emotional infidelity). Finally, given the cross-sectional nature of the current study, it is unclear whether greater jealousy among individuals in poor health reflects a behavioral response to their lesser mate value or whether their greater jealousy might broadly reflect differential investment in more competitive mating behavior at the expense of investment in health or some combination of the two. Future work employing experimental priming techniques involving the induction of high or low self-perceived health and the subsequent assessment of mating behaviors may help to disentangle the directionality of these relations.

Conclusion

The present study explored whether self-reported health status correlates with romantic relationship functioning. Previous research has identified health as an important mate-value characteristic (Buss et al., 1990). Accordingly, individuals who believe they are in poor health are also likely to perceive themselves to be at a mating disadvantage. Results indicated that self-reported poor health, in terms of both frequency and severity of health symptoms, predicted a greater perception that one's partner would commit an infidelity as well as increased romantic jealousy. Anticipated partner infidelity mediated the links between health problems and jealousy, suggesting that unhealthy

individuals perceive their partners as being more likely to mate with an intrasexual rival, in turn facilitating jealousy. To date, most research on health and mating has focused on preferences for health (or morphological features which might indicate health status) in others. This study extends existing research by suggesting that self-assessment of one's own health status is simultaneously important to understanding individuals' mating behavior.

Declaration of Conflicting Interests

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