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# Once a Cheater, Always a Cheater? Serial Infidelity Across Subsequent Relationships

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#### **Abstract**

Although there is a large body of research addressing predictors of relationship infidelity, no study to our knowledge has specifically addressed infidelity in a previous relationship as a risk factor for infidelity in a subsequent relationship. The current study addressed risk for serial infidelity by following adult participants (N=484) longitudinally through two mixed-gender romantic relationships. Participants reported their own extradyadic sexual involvement (i.e., having sexual relations with someone other than their partner; abbreviated ESI) as well as both known and suspected ESI on the part of their partners in each romantic relationship. Findings from logistic regressions showed that those who reported engaging in ESI in the first relationship were three times more likely to report engaging in ESI in their next relationship compared to those who did not report engaging in ESI in the first relationship. Similarly, compared to those who reported that their first-relationship partners did not engage in ESI, those who knew that their partners in the first relationships had engaged in ESI were twice as likely to report the same behavior from their next relationship partners. Those who suspected their first-relationship partners of ESI were four times more likely to report suspicion of partner ESI again in their next relationships. These findings controlled for demographic risk factors for infidelity and held regardless of respondent gender or marital status. Thus, prior infidelity emerged as an important risk factor for infidelity in

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next relationships. Implications for novel intervention targets for prevention of serial relationship infidelity are discussed.

#### Keywords

dating relationships; extradyadic sexual involvement; infidelity; longitudinal

Although the vast majority of romantic relationships in the United States include expectations of monogamy (Conley, Moors, Matsick, & Ziegler, 2013; Treas & Giesen, 2000), infidelity is widespread, with estimates of lifetime engagement in extra-relational affairs around 20% for married couples (Blow & Hartnett, 2005b) and up to 70% for unmarried couples (Wiederman & Hurd, 1999). Relationship infidelity is usually damaging (Allen et al., 2005), frequently leading to psychological distress both for those who engage in infidelity and for their partners (Cano & O'Leary, 2000), as well as to relationship distress or dissolution (Allen & Atkins, 2012; Johnson et al., 2002). Indeed, infidelity is one of the most commonly reported causes of divorce (Amato & Previti, 2003; Scott, Rhoades, Stanley, Allen, & Markman, 2013) and one of the most difficult issues for couple therapists to treat (Whisman, Dixon, & Johnson, 1997). The current study sought to address gaps in the literature about risks of serial infidelity by assessing the degree to which infidelity in one romantic relationship predicted similar experiences in participants' next relationships.

Researchers have examined a variety of individual and contextual risks for becoming involved in an extradyadic relationship. Cross-sectional data suggest that risk factors include low relationship commitment (Drigotas, Safstrom, & Gentilia, 1999), declining sexual and relationship satisfaction (Mark, Janssen, & Milhausen, 2011; Scott et al., 2016), certain personality characteristics (Barta & Kiene, 2005; Dewall et al., 2011; Mark et al., 2011), permissive attitudes about sex or infidelity (Fincham & May, 2017; Treas & Giesen, 2000), and exposure to approving social norms (Buunk, Bakker, & Taylor, 1995). Dating relationships are also typically thought to have a substantially higher risk of infidelity than marriages (Blow & Hartnett, 2005b; McAnulty & Brineman, 2007). Further, some research has investigated individual differences in motivations for engaging in infidelity. For example, Allen (2001) found that those high in avoidant attachment were more likely to report ESI for reasons related to independence, whereas those higher in attachment anxiety were more likely to report ESI for reasons related to intimacy and self-esteem. Mark et al. (2011) reported that approximately 20% of the variance in infidelity motivation was explained by different patterns of sexual inhibition and excitement.

In addition to these process variables, associations between individual demographic characteristics and predispositions toward infidelity have also been widely studied (Allen et al., 2005; Green & Sabini, 2006). The most well-established demographic finding has been that men tend to be more likely to engage in infidelity than women, possibly due to greater social power or evolutionary motivations (e.g., Hughes, Harrison, & Gallup, 2004; Lalasz & Weigel, 2011; Lammers, Stoker, Jordan, Pollmann, & Stapel, 2011). Women and men may also vary in their emotional responses to perceived partner ESI; men tend to report a greater degree of jealousy and distress in response to partner infidelity and to be more threatened by

sexual rather than emotional infidelity of their female partners, whereas women report more distress in response to emotional infidelity of their male partners (Edlund, Heider, Scherer, Farc, & Sagarin, 2006; Frederick & Fales, 2016; Harris & Christenfeld, 1996). However, some research has demonstrated that age and prior experiences with partner ESI moderate these findings (Varga, Gee, & Munro, 2011), and that gender discrepancies in general may be decreasing in younger cohorts (Atkins, Baucom, & Jacobson, 2001; Fincham & May, 2017; Mark et al., 2011). Thus, age may be another key factor in understanding risk for infidelity. Black or African American populations typically report higher rates of infidelity among men in mixed-gender relationships (e.g., Whisman, Gordon, & Chatay, 2007), which is likely attributable to scarcity of desirable male partners in Black or African American communities due to incarceration and other social contextual factors (Pinderhughes, 2002). Some studies have found that socioeconomic variables related to opportunity for infidelity, including more education, higher income, and employment, tend to be positively associated with both engagement in and approval of infidelity (Atkins et al., 2001; Treas & Giesen, 2000), although this association is inconsistent in the literature (Fincham & May, 2017); socioeconomic risk factors may be further moderated by gender (Munsch, 2012) and by relationship history (Atkins et al., 2001).

Although cross-sectional studies are descriptively useful, they do not necessarily provide information about how risks for infidelity can be understood over time. In particular, these studies do not address whether a person who engages in infidelity in one relationship is likely to engage in infidelity again in a subsequent romantic relationship, nor do they address the magnitude of the increased risk. This question is important, given that most people in the U.S. have multiple dating relationships before entering into a marriage or long-term commitment with a partner (Sassler, 2010), and research suggests that individuals' earlier romantic experiences may have consequences that can persist into later relationships or marriage. For example, living with more than one different romantic partner before marriage is associated with reduced marital quality and stability (Lichter & Qian, 2008), and having more sexual or relationship partners predicts poorer outcomes in later relationships, including sexual infidelity (Maddox Shaw, Rhoades, Allen, Stanley, & Markman, 2013) and lower marital satisfaction (Rhoades & Stanley, 2014). Thus, research regarding risks from prior relationship experiences may have important implications for researchers and clinicians who are interested in helping people develop healthy relationship patterns. An understanding of serial infidelity patterns could be clinically useful in therapy and relationship education contexts by helping individuals who are at risk of becoming entrenched in unhealthy relationship patterns recognize and address risk factors in themselves and their partners (e.g., Rhoades & Stanley, 2009).

Building an understanding of serial infidelity risk is a logical extension of existing theories about the factors that put people at risk of engaging in infidelity in general. Although numerous motivations for infidelity have been identified in existing theories, the two of most relevance to serial infidelity are (1) the quality and availability of alternative partners, and (2) attitudes about the acceptability of infidelity (Drigotas & Barta, 2001). First, regarding alternative partners, models of commitment and social exchange (Rusbult, 1983; Thibaut & Kelley, 1959) suggest that infidelity is likely to occur when individuals perceive having desirable alternatives to their current relationship partner (Drigotas et al., 1999). Individuals

who have already had emotional affairs or sexual encounters outside of their current relationship have firsthand knowledge that such alternatives exist, and may subsequently believe that such alternatives remain available to them, thus creating a higher risk of engaging in infidelity again in future relationships.

Second, regarding attitudes about ESI, models of infidelity risk often incorporate the reciprocal effects of people's attitudes. The theory of reasoned action claims that people tend to behave in accordance with their attitudes and with widespread social norms (Fishbein & Ajzen, 1975). Consistent with this theory, research has demonstrated that within a social context of widespread disapproval of infidelity, individuals with more approving or permissive personal beliefs regarding infidelity are more likely to cheat (Hackathorn, Mattingly, Clark, & Mattingly, 2011; Treas & Giesen, 2000). At the same time, past engagement in infidelity also predicts having more approving attitudes about infidelity, consistent with cognitive dissonance theory (Foster & Misra, 2013; Jackman, 2015; Sharpe, Walters, & Goren, 2013; Solstad & Mucic, 1999; Wiederman, 1997). Engaging in infidelity in a past relationship may therefore increase the risk of infidelity in future romantic relationships by increasing one's acceptance of engaging in infidelity.

Despite strong theoretical rationale, few studies have evaluated how actual infidelity experiences persist across different romantic relationships. Studies by Banfield and McCabe (2001) and Adamopolou (2013) each demonstrated that a recent history of engaging in infidelity increased the risk of future infidelity, but these studies were ambiguous with regard to whether the repeated infidelity occurred within the same relationship or across different relationships. This distinction is important, given that some risk factors for infidelity are relationship-specific (e.g., commitment) whereas others are linked to individual characteristics that are likely to persist into future relationships as well (e.g., personality). Recent work by Martins et al. (2016) more directly showed that infidelity in a previous relationship increased risk of infidelity in a later relationship, but was limited by the use of retrospective reports of prior infidelity that did not specify in which previous relationship or how long ago the infidelity occurred. Thus, the existing literature does not provide clear information about whether and to what degree engaging in infidelity in a previous relationship impacts the likelihood that an individual will engage in infidelity in the next relationship. The current study aims to fill that gap.

In addition to a person's own behavior, serial infidelity risk may include actual or suspected infidelity on the part of an individual's romantic partner. Research taking an interpersonal perspective has identified relationship-specific factors, in addition to involved-partner factors, that contribute to risk of infidelity (Mark et al., 2011). Couple-based approaches are careful to avoid blaming an individual for their partner's infidelity (Baucom, Snyder, & Gordon, 2011); at the same time, researchers acknowledge that both partners may play a role in creating the relationships characteristics that could potentially increase the chance that a partner will cheat (Allen et al., 2008). Thus, individuals with previous partners who have engaged in infidelity may be at increased risk for partnering with individuals in later relationships who also engage in infidelity because these individuals may be more likely to contribute to relationship contexts associated with higher risk of infidelity (Allen et al., 2005). It may also be the case that individuals who have learned about a previous partner's

infidelity have developed expectations that infidelity is more common and/or acceptable in subsequent relationships (e.g., Glass & Wright, 1992). If this is the case, individuals who have known about a previous partner's infidelity may be more likely to tolerate infidelity in a subsequent relationship as well, leading to persistent risk of partner infidelity across relationships over time.

Further, some research indicates that one's own past engagement in infidelity can increase the likelihood of suspecting infidelity from a relationship partner (Whisman et al., 2007). Subjective responses to hypothetical partner infidelity also differ based on whether a person has experienced actual infidelity in their own lives (Confer & Cloud, 2011; Harris, 2002; Ritchie & van Anders, 2015). Although research on this topic is quite limited, these studies suggest that perception of partner infidelity in a current relationship may be more likely if someone has personally engaged in infidelity previously. Therefore, we may expect risk of serial infidelity to include cross-partner effects as well.

## Measurement of Infidelity

One widely acknowledged issue in studies of infidelity is ambiguity or inconsistency in definitions of infidelity and the terminology used to refer to it (Blow & Hartnett, 2005a). Terms such as infidelity, unfaithfulness, cheating, extra-marital or extra-relational affairs, extra-dyadic involvement, and extra-dyadic sexual involvement are commonly used in the literature. Although each term has particular nuances in connotation or in which behaviors are included, they all attempt to assess the same underlying construct, which we refer to as infidelity.

The current study measures infidelity as extra-dyadic sexual involvement (ESI) – i.e., whether a person in a romantic relationship has had sexual relations with someone other than their relationship partner. This measure of infidelity has a few distinct limitations. First, it may not capture all behaviors that a couple may consider to be infidelity, such as kissing or an emotional affair, and the term "sexual relations" can be ambiguous. Second, not all ESI should be categorized as infidelity, because some couples may agree that ESI is acceptable under certain conditions, and other people may have more than one committed relationship partner (i.e., consensually non-monogamous or CNM couples). At the final wave of data collection, fewer than 2% of participants in the current sample reported being "in an open relationship"; however, this term may not capture the wide array of CNM agreements that may exist (e.g., swinging, threesomes, etc.). Therefore, we believe that the vast majority of behaviors captured by the current ESI measure are probably accurately labeled as infidelity, but we are not able to know for certain whether participants in our study or their partners considered ESI to be allowed or not in their relationships.

## **Current Study**

Taken together, existing theoretical and empirical research supports the idea that prior experiences of one's own or a partner's relationship infidelity may be associated with increased risk of those same experiences in future relationships. At the same time, research has been limited in empirically evaluating to what extent infidelity in a previous relationship,

either on the part of oneself or one's partner, predicts increased risk of infidelity in a subsequent relationship. The current study utilized longitudinal measurements of individuals' and their partners' infidelity behaviors across two different romantic relationships in order to provide specific information about the magnitude of increased risk associated with previous infidelity. The focus on proximal risk (from one relationship to the next) may be particularly relevant for identifying effective points of intervention, as well as for understanding the aspects of infidelity risk that persist into different relationship contexts.

Our first research question addressed whether one's own prior engagement in infidelity predicted a higher risk of engaging in infidelity again in the future. We hypothesized that those who engaged in ESI in one relationship would be more likely to engage in ESI again in the next relationship compared to those who did not engage in ESI in the first relationship.

Our second research question addressed serial partner infidelity: we asked whether individuals who had previous partners who engaged in ESI were more likely to experience partner infidelity again in a later relationship, and whether this applied to those who felt certain about previous partner ESI as well as those who only suspected, but were not certain about, previous partner ESI. Based on research on dyadic or relational contributions to infidelity risk, we hypothesized that individuals who felt certain that their partners engaged in ESI in one relationship would be more likely to report known partner ESI again in the next relationship. Similarly, we hypothesized that those who suspected their partners of ESI in one relationship would also be more likely to report suspected partner ESI again in the next relationship.

Finally, to expand the limited existing literature on perceptions of a partner's infidelity, our third research question evaluated how personal engagement in ESI predicted subsequent perceptions of partner engagement in ESI. We hypothesized that individuals who had engaged in ESI themselves in previous relationships would be more likely to report either known or suspected ESI on the part of their next relationship partners.

Because we were interested in the process of serial infidelity, analyses in the current study controlled for a set of demographic variables relevant to cross-sectional infidelity risk. Specifically, we controlled for participants' age, gender, socioeconomic status, and race.

Further, we identified two variables that may impact the processes underlying engagement in infidelity and could therefore act as moderators of a serial infidelity effect: gender and marital status. As previously discussed, dating relationships tend to involve different kinds of commitment than marital relationships and have higher rates of infidelity. Further, women and men tend to report different motivations for and differential reactions to infidelity. Therefore, we explored whether gender or marriage moderated the persistence of infidelity from one relationship to the next.

#### Method

#### **Participants and Procedure**

Participants in the current study were drawn from a larger longitudinal study of romantic relationship development, which recruited a nationwide sample representative of English-speaking young adults in the U.S. who were in unmarried romantic relationships lasting at least two months at baseline (see Rhoades, Stanley, & Markman, 2010). Participants across the U.S. were recruited using a targeted-listed telephone sampling strategy. Participants who were eligible and interested in enrolling (N=1294) completed surveys by mail every four to six months for eleven waves of data collection, spanning approximately 5 years. Surveys were estimated to take 75 minutes to complete, and participants earned \$40 per completed survey. The sample for the current study (N=484) consisted of all participants who answered questions about at least two different romantic relationships over the course of the study (total range = 1 to 7 relationships, M=1.6, SD=0.95). On average, the 484 participants selected for the current study sample completed 10.0 out of the 11 survey waves. All study procedures were approved by the principal investigator's university Institutional Review Board.

The current sample reflected the demographic distribution of the larger sample. The current sample included 329 women (68%) and 155 men. In terms of race, this sample was, 0.8% American Indian or Alaskan Native, 2.9% Asian, 15.3% Black or African American, 0.3% Native Hawaiian or Pacific Islander, and 76.0% White; 4.7% of participants either did not report or reported more than one race. In terms of ethnicity, this sample was 7.0% Hispanic or Latino and 93.0% not Hispanic or Latino. At the time of the first wave of data collection, the sample ranged in age from 18 to 35 years old (M= 24.8, SD= 4.73). Seventy-six percent of participants were employed at baseline. Participants had a median income of \$10,000 – \$14,999 per year and a median 14 years of education, both of which were representative of unmarried adults in the sample age range when the study began in the mid-2000s (U.S. Census Bureau, 2000).

#### Measures

**Own ESI**—Participants' own engagement in ESI was assessed at each wave with the question, "Have you had sexual relations with someone other than your partner since you began seriously dating?" A response of "No," was coded as 0, and responses of either "Yes, with one person," or "Yes, with more than one person," were coded as 1. When respondents completed more than one survey wave within the same relationship, own ESI was coded as a 1 for the relationship if respondents ever reported engaging in ESI during the relationship. Forty-four percent of the sample reported their own involvement in ESI at some point over the course of the study. Of note, this question did not assess whether the ESI was considered to be allowed or consensual in the relationship.

**Known or suspected partner ESI**—Perceived partner involvement in ESI was assessed at each wave with the question, "Has your partner had sexual relations with someone other than you since you began seriously dating?" Responses of "No," and "Probably not," were coded as 0. A response of "Yes, I think so," was coded as 1 for the *suspected* partner ESI

variable, and a response of "Yes, I know for sure" was coded as 1 for the *known* partner ESI variable. Thirty percent of participants reported known partner ESI during the study, and 18% reported suspected partner ESI. Suspected and known partner ESI were mutually exclusive categories within time points; that is, participants could report either suspected or known ESI, but not both, at each survey wave. Therefore, analyses on known partner ESI excluded participants who reported suspected partner ESI in that relationship, and vice versa. When respondents completed more than one survey wave within the same relationship, known partner ESI was coded as a 1 for the relationship if respondents ever reported known partner ESI within that relationship, at any time point. We coded suspected partner ESI as a 1 for the relationship, but never reported known partner ESI within the relationship, but never reported known partner ESI within the relationship.

**Demographics**—A set of demographic control variables were used in the current study. At the baseline survey, participants reported their age, their gender, whether they were employed, their annual income, and the number of years of education they had completed. Self-identified race and ethnicity were also measured at baseline; consistent with prior research showing increased risk for infidelity among Black or African American populations, a race dummy variable coded each participant as Black/African American (1) or not (0). All participants began the study in unmarried relationships, but one-third of the sample got married during the course of the study. In order to model marriage as a potential moderator of serial infidelity, we included a variable coding whether participants married during the study (1) or not (0).

#### **Data Analytic Plan**

Data were utilized from the first two relationships that participants in our sample reported over the course of data collection. A series of separate models used logistic regression to test our first two research questions about whether a particular infidelity experience in the first relationship (own ESI, known partner ESI, or suspected partner ESI) predicted a greater likelihood of having the same infidelity experience again in the second relationship. Specifically, we tested whether those who reported their own ESI in their first relationships were more likely to report their own ESI again in their second relationships compared to those with no reported own ESI in their first relationships (first research question). Similarly, we tested whether those reporting known partner ESI in first relationships were more likely to report known partner ESI in second relationships, and whether those reporting suspected partner ESI in first relationships (second research question). All models controlled for a set of demographic control variables relevant to infidelity risk, including age, gender, race, education, employment status, and income.

Next, we evaluated our third research question, which asked whether one's own previous engagement in ESI changed the likelihood of knowing about or suspecting partner ESI in the next relationship. In separate analyses, we tested whether those reporting their own ESI in their first relationships were more likely to report either known or suspected partner ESI in

their second relationships compared to those who did not report their own ESI. Again, all models controlled for relevant demographic variables.

Finally, we conducted follow-up analyses to determine whether gender or marriage moderated the persistence of infidelity across relationships. We tested whether the interaction of these variables with first-relationship ESI behaviors predicted second-relationship ESI behaviors in each model described previously.

### Results

Basic relationship characteristics indicated that participants tended to have been in their first relationships longer than their second relationships: first relationships lasted an average of 38.8 months before they ended, and second relationships had lasted an average of 29.6 months by the conclusion of the study. There were also differences in likelihood of living together. Sixty-five percent of participants reported living together with their first-relationship partners at some point, whereas only nineteen percent of participants reported living with their second-relationship partners.

Table 1 shows correlations between demographic control variables and whether participants reported their own ESI, known partner ESI, or suspected partner ESI during either relationship over the course of the study. Black or African American participants were more likely to report own ESI as well as both known and suspected partner ESI than non-Black participants. More educated participants in this sample were less likely to report their own ESI and known or suspected partner ESI. Reporting suspicion of partner ESI was more likely for older participants and those who were not employed. Finally, neither gender nor income was associated with ESI.

Primary results from logistic regression models are presented in Table 2. Participants who reported their own ESI in the first relationship were significantly more likely to report their own ESI in the second relationship, by 3.4 times compared to those who did not report engaging in ESI in the first relationship. Specifically, of the participants who reported engaging in ESI in the first relationship, 45% also reported engaging in ESI in the second relationship, whereas only 18% of the participants who did not report engaging in ESI in the first relationship reported engaging in ESI in the second relationship. Thus, the hypothesis for our first research question was supported.

Partners' known or suspected ESI behavior was also significantly associated across relationships, supporting the hypotheses for our second research question. When compared to those who reported no partner ESI in the first relationship, participants who reported known partner ESI in the first relationship were 2.4 times more likely to report known partner ESI in the second relationship (22% compared to 9%). Further, participants who reported suspected partner ESI in the first relationship were 4.3 times more likely to suspect their second relationship partners of ESI (37% compared to 6%).

Hypotheses regarding our third research question were not supported. We found no evidence that engagement in ESI in first relationships predicted any differences in the likelihood of reporting one's partner's known or suspected ESI in the second relationship.

Finally, in follow-up analyses, neither gender nor marriage significantly moderated the link between ESI in first relationships and ESI in second relationships for any model. Thus, we found no evidence that the persistence of ESI from one relationship to the next differed for women versus men or for couples who married compared to those who did not.

#### **Discussion**

The current study addressed an important gap in the literature on infidelity in romantic relationships by examining persistent or serial risk of infidelity across subsequent romantic relationships over time. Results from this study indicated that people who engaged in infidelity themselves, knew about a partner's infidelity, or suspected a partner of infidelity had a higher risk of having those same infidelity experiences again in their next romantic relationships. These findings controlled for many demographic variables that are predictive of engaging in infidelity, and they did not vary based on gender or marital status.

#### **General Infidelity Characteristics**

Overall rates of infidelity in this sample were toward the high end of the range of previous estimates, with 44% of participants reporting engaging in infidelity themselves during the relationships captured by this study, 30% reporting having at least one partner who they knew engaged in infidelity, and 18% reporting that they suspected a partner of engaging in infidelity. These higher rates are expected, given that this was an unmarried sample at baseline, and unmarried samples tend to have higher rates of infidelity than married samples (Treas & Giesen, 2000). Two notable departures from the prior literature were that there was no difference in the prevalence of reporting one's own or a partner's infidelity for women and men in this sample, and that participants with more years of education were less likely to report infidelity. These findings suggest that the existing understanding of gender and education differences in infidelity is nuanced; it likely reflects a complex interplay of social forces (e.g., power, privilege, and opportunity) that is not easily captured by simple demographic characteristics and that may be changing rapidly along with larger societal changes. Previous descriptions of demographic risk factors for infidelity do not necessarily accurately characterize the younger, unmarried population represented in the current study.

#### **Magnitude of Serial Infidelity Risk**

Our results indicated a three-fold increase in the likelihood that a person will engage in infidelity if they already have a history of engaging in ESI, and a two- to four-fold increase in the likelihood of having an partner engage in ESI if a person knew about or suspected infidelity from a past relationship partner. Thus, effects in the current study were generally medium in size.

These findings suggests that previous engagement in infidelity is an important risk factor predicting engagement in infidelity in a subsequent relationship, even after accounting for key demographic risk factors. At the same time, it is important to interpret these effects in the context of their base rates, which suggest that most people who reported either their own or their partner's infidelity during their first relationship in this study did *not* report having that same experience again in their second relationship during the study timeframe. That is,

although a history of infidelity may be an important risk factor of which to be aware, it is not necessarily true that someone who is "once a cheater" is "always a cheater." Understanding what distinguishes those who experience repeated infidelity from those who do not remains an important next step, both for understanding the development of infidelity risk and for designing effective interventions for individuals who would like to stop negative relationship behaviors and experiences from carrying over into their future relationships.

One important consideration is that first relationships and second relationships were somewhat different in the current study. First relationships were longer and more likely to involve living together. This makes sense in our sample, given that first relationships began before the study timeframe, whereas second relationships were newer simply by virtue of our data collection procedure. First relationships also necessarily ended during the study, but not all second relationships did. These differences likely explain the differences in rates of infidelity in first and second relationships. However, we do not believe these differences alter the conclusions reached from the current analyses. It may be the case that even more participants with infidelity in first relationships would have gone on to report infidelity again in the second relationships that were still ongoing, which would have strengthened the effects found in our analyses. The only circumstance that would threaten the validity of our primary conclusions about serial infidelity risk would be if participants without first-relationship infidelity were to "catch up" to those with first-relationship infidelity by reporting a greater rate of infidelity later on in second relationships, and we do not know of any reason to expect that to be the case.

#### Influences on Partner Infidelity

We found no evidence that reported suspected or known partners' infidelity was related to a person's own past history of engaging in infidelity. These null results belie the common wisdom that those who are suspicious of their partners' fidelity have likely engaged in infidelity themselves, at least within the context of the two subsequent young adult romantic relationships captured in the present study. On the other hand, our results did indicate that even when they left one relationship and began another, people who suspected previous partner ESI were much more likely to be suspicious of their new relationship partners as well. Individual differences in trait suspiciousness or jealousy, independent of relationship context, may play a role in suspecting a relationship partner of infidelity; for example, parent relationship models (e.g., Rhoades, Stanley, Markman, & Ragan, 2012) and stable relationship attachment styles (e.g., Dewall et al., 2011) may impact persistent attitudes or beliefs about fidelity. Further, little is known about the accuracy of suspicions of infidelity. Future research investigating how frequently individuals are correct when suspecting partner infidelity could shed light on the rationale people may have for being suspicious of their partners.

Perhaps most intriguing, we found that participants who said they were certain that their previous relationship partners engaged in ESI were more than twice as likely to go on to report feeling certain that their current partner had engaged in ESI in their next relationship. We cannot make assertions about causality using data from the current study. It may be that some individuals have persistent relationship styles that tend to create a relationship context

in which a partner's infidelity is likely (Allen et al., 2005). Alternatively, some people may learn that these types of behaviors are more acceptable or expected after experiencing them once (e.g., Glass & Wright, 1992; Simon et al., 2001), and thus may become more tolerant of signs of infidelity in future relationship partners. This explanation is consistent with theories that posit a bidirectional link between infidelity experiences and attitudes. It may also be the case that socioeconomic constraints, cultural values, or limited partner pools make certain individuals more likely to select or tolerate infidelity in partners again and again. For example, scholars of race and relationships posit that social factors causing an unequal gender ratio in Black communities create a context in which male infidelity is ignored, tolerated, or even considered normative (Bowleg, Lucas, & Tschann, 2004; Pinderhughes, 2002). Finally, because we did not assess how or why participants knew about their partners' infidelity, we must consider the possibility that even participants who reported being "certain" about their partners' infidelity could be reporting subjective perceptions related to their own suspicion, jealousy, or other personality traits. These individuals may be more likely to repeatedly report certain knowledge of partner infidelity despite lacking definitive evidence.

#### **Clinical Implications**

In addition to filling an important gap in our understanding of serial infidelity, results from this study may be relevant for clinical interventions as well. Prevention efforts such as relationship education may help individuals interrupt the tendency to repeatedly engage in ESI in different relationships. Other researchers have identified a need for infidelity prevention to identify the people who are most at risk, and to address the contextual and situational risks that may then lead to infidelity (Markman, 2005). This study demonstrated that past infidelity is an important indicator to identify those who are at continued risk of engaging in infidelity, over and above common demographic risk factors. Moreover, this study points to an opportunity for clinicians to help individuals identify the circumstances that led to past infidelity in order to avoid repeating similar patterns again in future relationships.

The findings regarding serial partner similarities may indicate an important additional target for preventative relationship education aimed at helping individuals make better decisions in their romantic lives. Relationship interventions can encourage participants to make informed choices about selecting potential partners based on those partners' romantic histories. Interventions can also teach skills appropriate for mitigating the particular risks that may accompany having a relationship with someone who has engaged in infidelity during a previous relationship. For example, professionals have noted that couples' abilities to discuss the individual and relationship factors that led up to infidelity is a strong indicator of successful relationship recovery (Gordon, Baucom, & Snyder, 2004), and there is a growing body of research in support of explicit conversations aimed at defining relationships as they undergo transitions (Stanley, Rhoades, & Markman, 2006). Preliminary research suggests that such conversations may be particularly important with regard to managing infidelity (Knopp, Vandenberg, Rhoades, Stanley, & Markman, 2016). It may be that conversations aimed at reaching a mutual definition of relationship fidelity and anticipating potential barriers to maintaining fidelity could be beneficial for couples who are at risk due to past

experiences or other risk factors, though this intervention remains to be empirically evaluated.

#### Limitations

The current study has limitations that are important to consider. First, the sample is not likely to represent all people in the United States equally well. The ages of eligible participants at the time of initial recruitment were restricted to between 18 and 35 years old; the effects of serial infidelity may be different among younger adolescents or older adults, particularly considering the different relationship structures and expectations that exist throughout the lifespan. Although the sample from the current study was a subset of a larger group of participants that was representative of the U.S. in terms of geographic location, race, and ethnicity, the smaller sample used here is not likely to reliably represent all racial and ethnic minorities, because non-White participants comprise a small number of the sample participants. In addition, inclusion criteria for participants in this study involved being in a relationship with "someone of the opposite sex" at the time of recruitment. Thus, findings may not generalize to people who have same-gender relationships.

As previously discussed, the measurement of infidelity in the current study has some limitations. Although most research on infidelity to date, including the current study, has defined infidelity as ESI (c.f. Allen et al., 2005; Blow & Hartnett, 2005a), ESI is an imperfect proxy for infidelity. In particular, it is unclear in this study whether the ESI was considered to be allowed in the relationship (e.g., as in consensually non-monogamous relationships). Our data indicate that at the end of the study, 2% of our sample reported being in an "open relationship," but we do not know this information about the majority of the relationships included in the current analysis; further, the term "open relationship" may not capture all different forms of consensual ESI. Future research could define infidelity in more precise ways to distinguish it from consensual non-monogamy and could also measure different facets of infidelity (e.g., Luo, Cartun, & Snider, 2010).

Finally, all data in the current study are self-reported and are therefore subject to reporting bias and shared method variance. This issue is exacerbated by the fact that infidelity is a sensitive topic that is subject to social desirability effects in research (e.g., Whisman & Snyder, 2007). Thus, these results may be partially explained by consistency in willingness to report infidelity: individuals who are unwilling to report their own (or a partner's) infidelity in one relationship are probably also not willing to report infidelity at any point in the future. The current study's procedure – collecting surveys by mail rather than in person – may have helped to ameliorate this issue, but future research could try alternative methods of collecting data about infidelity.

#### Conclusions

The current study provides novel contributions to established notions of infidelity across serial relationships, including that personal engagement in ESI and perceptions of partner engagement in ESI predict increased risk of serial infidelity in subsequent relationships. Infidelity can harm individuals and relationships, and these results can inform prevention or intervention efforts by targeting risk factors based on previous relationship patterns in

addition to the various individual, relational, and contextual factors demonstrated to predict infidelity in previous work. Although intervention research will be necessary to explore which risk factors are most useful to address and through what mechanisms, our findings clearly demonstrate the need for researchers and clinicians to take into account previous infidelity patterns while developing an understanding of how to predict and intervene with regard to risk for serial infidelity.

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#### References

- Adamopoulou E. New facts on infidelity. Economics Letters. 2013; 121(3):458–462. https://doi.org/10.1016/j.econlet.2013.09.025.
- Allen, ES. Unpublished doctoral dissertation. University of North Carolina; Chapel Hill: 2001. Attachment styles and their relation to patterns of extradyadic and extramarital involvement.
- Allen ES, Atkins DC. The association of divorce and extramarital sex in a representative U.S. sample. Journal of Family Issues. 2012; 33(11):1477–1493. https://doi.org/10.1177/0192513X12439692.
- Allen ES, Atkins DC, Baucom DH, Snyder DK, Gordon KC, Glass SP. Intrapersonal, interpersonal, and contextual factors in engaging in and responding to extramarital involvement. Clinical Psychology: Science and Practice. 2005; 12(2):101–30. https://doi.org/10.1093/clipsy.bpi014.
- Allen ES, Rhoades GK, Stanley SM, Markman HJ, Williams T, Melton J, Clements ML. Premarital precursors of marital infidelity. Family Process. 2008; 47(2):243–259. https://doi.org/10.1111/j. 1545-5300.2008.00251.x. [PubMed: 18605124]
- Amato PR, Previti D. People's reasons for divorcing: Gender, social class, the life course, and adjustment. Journal of Family Issues. 2003; 24(5):602–26. https://doi.org/10.1177/0192513X03254507.
- Atkins DC, Baucom DH, Jacobson NS. Understanding infidelity: Correlates in a national random sample. Journal of Family Psychology. 2001; 15(4):735–749. https://doi.org/10.1037/0893-3200.15.4.735. [PubMed: 11770478]
- Banfield S, McCabe MP. Extra relationship involvement among women: Are they different from men? Archives of Sexual Behavior. 2001; 30(2):119–142. https://doi.org/10.1023/A:1002773100507. [PubMed: 11329724]
- Barta WD, Kiene SM. Motivations for infidelity in heterosexual dating couples: The roles of gender, personality differences, and sociosexual orientation. Journal of Social and Personal Relationships. 2005; 22(3):339–360. https://doi.org/10.1177/0265407505052440.
- Baucom, DH., Snyder, DK., Gordon, KC. Helping couples get past the affair: A clinician's guide. Guilford Press; 2011.
- Blow AJ, Hartnett K. Infidelity in committed relationships I: A methodological review. Journal of Marital and Family Therapy. 2005a; 31(2):183–216. https://doi.org/10.1111/j. 1752-0606.2005.tb01555.x. [PubMed: 15974058]
- Blow AJ, Hartnett K. Infidelity in committed relationships II: A substantive review. Journal of Marital and Family Therapy. 2005b; 31(2):217–33. https://doi.org/10.1111/j.1752-0606.2005.tb01556.x. [PubMed: 15974059]
- Bowleg L, Lucas KJ, Tschann JM. "The ball was always in his court": An exploratory analysis of relationship scripts, sexual scripts, and condom use among African American women. Psychology of Women Quarterly. 2004; 28(1):70–82. https://doi.org/10.1111/j.1471-6402.2004.00124.x.

Buunk BP, Bakker AB, Taylor P. Extradyadic sex: The role of descriptive and injunctive norms. Journal of Sex Research. 1995; 32(4):313–18. https://doi.org/http://dx.doi.org/10.1080/00224499509551804.

- Cano A, O'Leary KD. Infidelity and separations precipitate major depressive episodes and symptoms of nonspecific depression and anxiety. Journal of Consulting and Clinical Psychology. 2000; 68(5): 774–81. https://doi.org/10.1037/0022-006X.68.5.774. [PubMed: 11068963]
- Confer JC, Cloud MD. Sex differences in response to imagining a partner's heterosexual or homosexual affair. Personality and Individual Differences. 2011; 50(2):129–34. https://doi.org/10.1016/j.paid.2010.09.007.
- Conley TD, Moors AC, Matsick JL, Ziegler A. The fewer the merrier? Assessing stigma surrounding consensually non-monogamous romantic relationships. Analyses of Social Issues and Public Policy. 2013; 13(1):1–30. https://doi.org/10.1111/j.1530-2415.2012.01286.x.
- Dewall CN, Lambert NM, Slotter EB, Pond RS, Deckman T, Finkel EJ, Fincham FD. So far away from one's partner, yet so close to romantic alternatives: Avoidant attachment, interest in alternatives, and infidelity. Journal of Personality and Social Psychology. 2011; 101(6):1302–16. https://doi.org/10.1037/a0025497. [PubMed: 21967006]
- Drigotas SM, Barta W. The cheating heart: Scientific explorations of infidelity. Current Directions in Psychological Science. 2001; 10(5):177–80. https://doi.org/10.1111/1467-8721.00143.
- Drigotas SM, Safstrom CA, Gentilia T. An investment model prediction of dating infidelity. Journal of Personality and Social Psychology. 1999; 77(3):509–24. https://doi.org/10.1037/0022-3514.77.3.509.
- Edlund J, Heider J, Scherer C, Farc M, Sagarin B. Sex differences in jealousy in response to actual infidelity. Evolutionary Psychology. 2006; 4:462–70. https://doi.org/10.1037/a0019378.
- Fincham FD, May RW. Infidelity in romantic relationships. Current Opinion in Psychology. 2017; 13:70–74. https://doi.org/10.1016/j.copsyc.2016.03.008. [PubMed: 28813298]
- Fishbein, M., Ajzen, I. Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley; 1975.
- Foster JD, Misra TA. It did not mean anything (about me): Cognitive dissonance theory and the cognitive and affective consequences of romantic infidelity. Journal of Social and Personal Relationships. 2013; 30(7):835–57. https://doi.org/10.1177/0265407512472324.
- Frederick DA, Fales MR. Upset over sexual versus emotional infidelity among gay, lesbian, bisexual, and heterosexual adults. Archives of Sexual Behavior. 2016; 45(1):175–91. https://doi.org/10.1007/s10508-014-0409-9. [PubMed: 25518816]
- Glass SP, Wright TL. Justifications for extramarital relationships: The association between attitudes, behaviors, and gender. The Journal of Sex Research. 1992; 29(3):361–87. https://doi.org/http://dx.doi.org/10.1080/00224499209551654.
- Gordon KC, Baucom DH, Snyder DK. An integrative intervention for promoting recovery from extramarital affairs. Journal of Marital and Family Therapy. 2004; 30(213):213–31. https://doi.org/10.1111/j.1752-0606.2004.tb01235.x. [PubMed: 15114949]
- Green MC, Sabini J. Gender, socioeconomic status, age, and jealousy: Emotional responses to infidelity in a national sample. Emotion. 2006; 6(2):330–34. https://doi.org/10.1037/1528-3542.6.2.330. [PubMed: 16768565]
- Hackathorn J, Mattingly BA, Clark EM, Mattingly MJB. Practicing what you preach: Infidelity attitudes as a predictor of fidelity. Current Psychology. 2011; 30(4):299–311. https://doi.org/10.1007/s12144-011-9119-9.
- Harris CR. Sexual and romantic jealousy in heterosexual and homosexual adults. Psychological Science. 2002; 13(1):7–12. https://doi.org/10.1111/1467-9280.00402. [PubMed: 11892782]
- Harris CR, Christenfeld N. Gender, jealousy, and reason. Psychological Science. 1996; 7(6):364–6. https://doi.org/http://www.jstor.org/stable/40062981.
- Hughes SM, Harrison MA, Gallup GG. Sex differences in mating strategies: Mate guarding, infidelity and multiple concurrent sex partners. Psychology, Evolution & Gender. 2004; 6(1):3–13. https://doi.org/10.1080/14616660410001733588.
- Jackman M. Understanding the cheating heart: What determines infidelity intentions? Sexuality and Culture. 2015; 19(1):72–84. https://doi.org/10.1007/s12119-014-9248-z.

Johnson, CA., Stanley, SM., Glenn, ND., Amato, PR., Nock, SL., Markman, HJ., Dion, MR. Marriage in Oklahoma: 2001 baseline statewide survey on marriage and divorce (S02096 OKDHS). Oklahoma City, OK: Oklahoma Department of Human Services; 2002.

- Knopp, K., Vandenberg, P., Rhoades, GK., Stanley, SM., Markman, HJ. "DTR" or "WTF": The role of infidelity in defining the relationship. Poster presented at the meeting of the American Psychological Association; Denver, CO. 2016.
- Lalasz CB, Weigel DJ. Understanding the relationship between gender and extradyadic relations: The mediating role of sensation seeking on intentions to engage in sexual infidelity. Personality and Individual Differences. 2011; 50(7):1079–83. https://doi.org/10.1016/j.paid.2011.01.029.
- Lammers J, Stoker JI, Jordan J, Pollmann M, Stapel DA. Power increases infidelity among men and women. Psychological Science. 2011; 22(9):1191–7. https://doi.org/10.1177/0956797611416252. [PubMed: 21771963]
- Lichter DT, Qian Z. Serial cohabitation and the marital life course. Journal of Marriage and Family. 2008; 70:861–78. https://doi.org/10.1111/j.1741-3737.2008.00532.x.
- Luo S, Cartun MA, Snider AG. Assessing extradyadic behavior: A review, a new measure, and two new models. Personality and Individual Differences. 2010; 49(3):155–63. https://doi.org/10.1016/j.paid.2010.03.033.
- Maddox Shaw AM, Rhoades GK, Allen ES, Stanley SM, Markman HJ. Predictors of extradyadic sexual involvement in unmarried opposite-sex relationships. Journal of Sex Research. 2013; 50(6): 598–610. https://doi.org/10.1080/00224499.2012.666816. [PubMed: 22524318]
- Mark KP, Janssen E, Milhausen RR. Infidelity in heterosexual couples: Demographic, interpersonal, and personality-related predictors of extradyadic sex. Archives of Sexual Behavior. 2011; 40(5): 971–82. https://doi.org/10.1007/s10508-011-9771-z. [PubMed: 21667234]
- Markman HJ. The prevention of extramarital involvement: Steps toward "affair proofing" marriage. Clinical Psychology: Science and Practice. 2005; 12(2):134–38. https://doi.org/10.1093/clipsy/bpi016.
- Martins A, Pereira M, Andrade R, Dattilio FM, Narciso I, Canavarro MC. Infidelity in dating relationships: Gender-specific correlates of face-to-face and online extradyadic involvement. Archives of Sexual Behavior. 2016; 45(1):193–205. https://doi.org/10.1007/s10508-015-0576-3. [PubMed: 26194971]
- McAnulty R, Brineman J. Infidelity in dating relationships. Annual Review of Sex Research. 2007; 18(1):94–114. https://doi.org/10.1080/10532528.2007.10559848.
- Munsch CL. The science of two-timing: The state of infidelity research. Sociology Compass. 2012; 6(1):46–59. https://doi.org/10.1111/j.1751-9020.2011.00434.x.
- Pinderhughes EB. African American marriage in the 20th century. Family Process. 2002; 41(2):269–82. https://doi.org/10.1111/j.1545-5300.2002.41206.x. [PubMed: 12140962]
- Rhoades, GK., Stanley, SM. Relationship education for individuals: The benefits and challenges of intervening early. In: Benson, H., Callan, S., editors. What works in relationship education: Lessons from academics and service deliverers in the United States and Europe. Doha, Qatar: Doha International Institute for Family Studies and Development; 2009. p. 45-54.
- Rhoades, GK., Stanley, SM. Before "I Do": What do premarital experiences have to do with marital quality among today's young adults?. National Marriage Project, University of Virginia; 2014. Retrieved from http://before-i-do.org
- Rhoades GK, Stanley SM, Markman HJ. Should I stay or should I go? Predicting dating relationship stability from four aspects of commitment. Journal of Family Psychology. 2010; 24(5):543–50. https://doi.org/http://dx.doi.org/10.1037/a0021008. [PubMed: 20954764]
- Rhoades GK, Stanley SM, Markman HJ, Ragan EP. Parents' marital status, conflict, and role modeling: Links with adult romantic relationship quality. Journal of Divorce & Remarriage. 2012; 53(5):348–67. https://doi.org/10.1080/10502556.2012.675838. [PubMed: 22822295]
- Ritchie LL, van Anders SM. There's jealousy...and then there's jealousy: Differential effects of jealousy on testosterone. Adaptive Human Behavior and Physiology. 2015; 1(2):231–46. https://doi.org/10.1007/s40750-015-0023-7.

Rusbult CE. A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. Journal of Personality and Social Psychology. 1983; 45(1):101–17.

- Sassler S. Partnering across the life course: Sex, relationships, and mate selection. Journal of Marriage and Family. 2010; 72(3):557–75. https://doi.org/10.1111/j.1741-3737.2010.00718.x. [PubMed: 22822268]
- Scott SB, Parsons A, Post KM, Stanley SM, Markman HJ, Rhoades GK. Changes in the sexual relationship and relationship adjustment precede extradyadic sexual involvement. Archives of Sexual Behavior. 2016; 46(2):395–406. https://doi.org/10.1007/s10508-016-0797-0. [PubMed: 27473073]
- Scott SB, Rhoades GK, Stanley SM, Allen ES, Markman HJ. Reasons for divorce and recollections of premarital intervention: Implications for improving relationship education. Couple & Family Psychology. 2013; 2(2):131–45. https://doi.org/10.1037/a0032025. [PubMed: 24818068]
- Sharpe DI, Walters AS, Goren MJ. Effect of cheating experience on attitudes toward infidelity. Sexuality and Culture. 2013; 17(4):643–58. https://doi.org/10.1007/s12119-013-9169-2.
- Simon TR, Anderson M, Thompson MP, Crosby AE, Shelley G, Sacks JJ. Attitudinal acceptance of intimate partner violence among U.S. adults. Violence and Victims. 2001; 16(2):115–26. [PubMed: 11345473]
- Solstad K, Mucic D. Extramarital sexual relationships of middle-aged Danish men: Attitudes and behavior. Maturitas. 1999; 32(1):51–9. https://doi.org/10.1016/S0378-5122(99)00012-2. [PubMed: 10423716]
- Stanley SM, Rhoades GK, Markman HJ. Sliding versus deciding: Inertia and the premarital cohabitation effect. Family Relations. 2006; 55:499–509. https://doi.org/10.1111/j. 1741-3729.2006.00418.x.
- Thibaut, JW., Kelley, HH. The social psychology of groups. New Brunswick: Transaction Books; 1959
- Treas J, Giesen D. Sexual infidelity among married and cohabiting americans. Journal of Marriage and Family. 2000; 61(1):48–60. https://doi.org/10.1111/j.1741-3737.2000.00048.x.
- Varga CM, Gee CB, Munro G. The effects of sample characteristics and experience with infidelity on romantic jealousy. Sex Roles. 2011; 65(11–12):854–66. https://doi.org/10.1007/s11199-011-0048-8.
- Whisman MA, Dixon AE, Johnson B. Therapists' perspectives of couple problems and treatment issues in couple therapy. Journal of Family Psychology. 1997; 11(3):361–6. https://doi.org/10.1037/0893-3200.11.3.361.
- Whisman MA, Gordon KC, Chatav Y. Predicting sexual infidelity in a population-based sample of married individuals. Journal of Family Psychology. 2007; 21(2):320–4. https://doi.org/10.1037/0893-3200.21.2.320. [PubMed: 17605555]
- Whisman MA, Snyder DK. Sexual infidelity in a national survey of American women: Differences in prevalence and correlates as a function of method of assessment. Journal of Family Psychology. 2007; 21(2):147–54. https://doi.org/10.1037/0893-3200.21.2.147. [PubMed: 17605537]
- Wiederman MW. Extramarital sex: Prevalence and correlates in a national survey. Journal of Sex Research. 1997; 34(2):167–74. https://doi.org/10.1080/00224499709551881.
- Wiederman MW, Hurd C. Extradyadic involvement during dating. Journal of Social and Personal Relationships. 1999; 16(2):265–74. https://doi.org/10.1177/0265407599162008.

Table 1
Associations Between Demographic Variables and ESI During Either Relationship

	Own ESI	Known Parner ESI	Suspected Partner ESI
$Age^a$	.06	.04	.13**
$\mathrm{Gender}^b$	.01	.08	02
$Race^b$	.10*	.22*	.26**
Years of Education <sup>a</sup>	13**	20**	16**
Employment <sup>b</sup>	07	06	15 **
Income <sup>a</sup>	.04	02	.06

Note:

<sup>\*</sup> p < .05;

<sup>\*\*</sup> p < .01.

 $<sup>^{</sup>a}$ Point-biserial correlations between continuous demographic variables and dichotomous ESI variables.

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Table 2

Logistic Regression Results Predicting ESI Across Relationships.

ESI in Relationship 1	ESI in Relationship 2	N	q	N b S.E. Wald	Wald	d	O.R. [95% CI]
Own	Own	467	1.21	467 1.21 0.23	28.6		<.001 3.35 [2.15 5.22]
Known Partner	Known Partner	389	98.0	0.35	5.90	.015	2.36 [1.18 4.72]
Suspect. Partner	Suspect. Partner	329	329 1.45 0.49	0.49	8.69	.003	4.27 [1.63 11.22]
Own	Known Partner	419	0.10	0.33	0.09	.770	1.10[0.582.08]
Own	Suspect. Partner	414	0.40	0.35 1.27	1.27	.260	1.49 [0.75 2.96]

Note: All analyses control for participant age, gender, race, and socioeconomic status.

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