College student men ($n = 299$) and women ($n = 392$) reported their experiences with extradyadic (ED) dating and sexual activity. We also investigated the relationships between ED activity and religiosity, sex–love–marriage association beliefs, narcissism, sexual sensation seeking, a ‘ludic’ or game-playing orientation to romantic relationships, and self-perceived ability to deceive one’s dating partner. Despite normative disapproval for ED activity, a majority of respondents reported having had ED involvement while dating. There was no sex difference in the incidence of ED dating or ED kissing; however, men were more likely than women to experience ED fondling, oral sex, or vaginal intercourse. In general, ED dating and ED sexual activity were related to less adherence to sex–love–marriage association beliefs, increased sexual sensation seeking, a ‘ludic’ love style, and a self-perceived ability to deceive one’s dating partner. Findings are discussed with regard to possible implications and directions for future research.

**KEY WORDS** • dating • extradyadic involvement • sex differences

Issues of exclusivity are inherent in all intimate relationships as each member of the dyad probably holds certain expectations regarding activities that are or are not acceptable to share with others. For example, the large majority of Americans believe that sexual intimacy with one person should preclude such intimacy with anyone else, such that extramarital sex is clearly prohibited (Laumann, Gagnon, Michael, & Michaels, 1994).

What about various forms of extradyadic (hereafter ED) involvement prior to marriage? That is, with strong cultural norms of exclusivity in romantic relationships, what about dating and sexual activity with individuals other than one’s steady relationship partner while engaged in a ‘serious’ or ‘exclusive’
dating relationship? Relatively less research attention has been paid to this topic, yet conceivably it is while dating that people first uphold or violate exclusivity expectations. ED involvement during dating may, therefore, have implications for subsequent marital expectations and behavior. The objective of the current study was to assess the incidence and some possible individual correlates of ED experience during dating in a sample of college students.

The prior research on ED involvement prior to marriage has been limited primarily to surveying college students regarding attitudes toward such activity (e.g. Lieberman, 1988; Margolin, 1989; Weis & Slosnerick, 1981; Yarab, Allgeier, & Sensibaugh, in press). With regard to behavior, other researchers have obscured interpretation of their results by not specifying the nature of the ED activity under consideration. For example, Roscoe, Cavanaugh, and Kennedy (1988) asked college students what constituted ‘dating infidelity’, and Sheppard, Nelson, and Andreoli-Mathie (1995) asked respondents to indicate whether each had been ‘unfaithful’ during a recent dating relationship. Between both studies, infidelity ran the gamut from dating and sexual intercourse to keeping secrets from one’s dating partner or betraying that partner’s confidence.

To our knowledge, only three studies have focused on the incidence of ED involvement among college students and have specified the ED behaviors considered (Hansen, 1987; Weis & Wiederman, 1996; Yarab, Sensibaugh, & Allgeier, in press), and only one of these examined possible correlates of ED experience. In multiple regression analyses, Hansen (1987) found that ED permissiveness (+) and number of years dating (+) were the only unique predictors of men’s ED involvement, whereas ED permissiveness (+), general sexual permissiveness (+), religiosity (−) and non-traditional gender role attitudes (+) were unique predictors of women’s ED involvement.

Kelley et al. (1983), in their model of influences on close relationships, postulated that events within such relationships are determined by factors related to the person (P), the other (O) and the environment (E). So, there are at least three classes of influences researchers should consider when studying phenomena involving close relationships. With regard to ED involvement, applying Kelley et al.’s (1983) model results in speculation that such experience is likely related to individual differences (e.g. certain attitudes and personality traits, as investigated in the current study), differences between relationships (e.g. level of commitment and relationship satisfaction) and differences in environmental conditions (e.g. opportunities for undetected ED involvement and attractiveness of potential ED partners). We sought to investigate potential person (P) variables, such as sex and sexual attitudes, which we hypothesized to be related to ED experience.

Based on prior research, we expected greater ED sexual involvement among men compared with women (Hansen, 1987; Weis & Wiederman, 1996). A’s religiosity has been found to be related to attitudes toward premarital sex (e.g. Sheeran, Abrams, Araham, & Spears, 1993), we also considered respondent religiosity. As an individual’s values conceivably should be congruent with that individual’s sexual behavior, we also measured the degree to which respondents associated sex, love and marriage as belonging together (Weis, Slosnerick, Cate, & Sollie, 1986). We hypothesized that those who were relatively more religious and held greater sex–love–marriage association beliefs would be less likely to have engaged in ED dating or ED sexual activity.

Those who hold a relatively narcissistic orientation toward meeting their
own needs over others’ needs might be expected to display greater tendencies toward ED involvement. Indeed, Buss and Shackelford (1997) found that narcissism was related to predictions of future infidelity by young marrieds. Accordingly, we hypothesized that individuals scoring relatively high on sense of entitlement and exploitiveness, each a facet of narcissism, would be more prone to ED involvement.

Additionally, we hypothesized that those relatively high on sexual sensation seeking (Kalichman & Rompa, 1995), or the tendency to seek out new and varied sexual experiences, would be relatively prone to ED involvement. Our rationale was that greater needs for sexual variety would dispose individuals to seek out multiple partners.

We also expected individuals who generally take a ‘game playing’ stance (or ‘ludic’ love style; Hendrick & Hendrick, 1986; Lee, 1973) in romantic relationships to be relatively prone to ED involvement. Our rationale was that a more cavalier orientation toward romantic ties would dispose individuals to engage in simultaneous sexual relationships, some of which might occur during involvement in a ‘serious’ dating relationship.

Last, as ED involvement is surrounded by strong normative disapproval, it is likely that ED activity would entail deceiving one’s steady partner. Participants in Roscoe et al.’s (1988) study indicated that the most likely consequence of infidelity would be relationship termination. So, we hypothesized that ED involvement would be related to self-perceived ability to deceive a partner.

**Method**

**Participants**

Participants were 299 men and 392 women enrolled in introductory psychology courses at a mid-sized, midwestern state university in the USA with an annual enrollment of approximately 19,000 students. Each participant received partial credit toward completion of the introductory psychology course. Respondents ranged in age from 18 to 24 years (M = 18.93, SD = 1.15), with 90.3 percent of the respondents falling between 18 and 20 years of age. The large majority (89.0%) of respondents were White, 7.4 percent were Black, and the remaining 3.6 percent indicated Latino, Asian, or ‘Other.’ Nearly one-half (45.6%) of participants were currently involved in a ‘serious’ relationship (including 1.2% who were currently married), whereas 32.4 percent were not currently dating anyone and the remaining 22.0 percent were ‘casually’ dating one or more individuals.

**Measures**

**Demographics and religiosity.** In addition to basic demographic items, respondents were asked to indicate the number of religious services attended in a typical year (open-ended response). Respondents were also asked to indicate the importance of religion in their own life, using a 7-point scale (ranging from 1 = not at all important to 7 = extremely important), as well as the importance of religion in making decisions about their own life (using the same scale). Such single-item indices of religiosity have been validated in previous research (Gorsuch & McFarland, 1972). Because responses to the first item were not on the same scale as responses to the other two items, responses to each of the three items were converted into a Z-score and the mean of the
three Z-scores served as a composite measure. The internal consistency coefficient (Cronbach’s alpha) was .81.

**Sex-love-marriage association.** Respondents completed the 8-item sex-love-marriage (SLM) association scale (Weis et al., 1986), which purportedly measures the extent to which the respondent associates sex, love and marriage as belonging together. Respondents indicated their degree of agreement or disagreement with each of the eight statements using a 5-point scale (ranging from 1 = strongly disagree to 5 = strongly agree). After reverse-scoring three of the items, an overall score is generated by summing across items, with higher scores indicating relatively greater sex-love-marriage association beliefs. The scale has been shown to be predictive of conservative attitudes toward sexual relationships (Weis et al., 1986). In the current study, Cronbach’s alpha was .72.

**Narcissism.** Narcissism has been shown to be a multifaceted construct (Raskin & Terry, 1988). Respondents in the current study completed the Entitlement and Exploitiveness subscales from Raskin and Terry’s (1988) Narcissistic Personality Inventory. Respondents indicated their degree of agreement or disagreement with each of the 11 statements using a 5-point scale (ranging from 1 = strongly disagree to 5 = strongly agree). An overall score on Entitlement is generated by summing across six items, with higher scores indicating relatively greater demand for attention, respect and power. In the current study, Cronbach’s alpha was .72. An overall score on Exploitiveness is generated by summing across five items, with higher scores indicating relatively greater self-perceived ability to manipulate others. In the current study, Cronbach’s alpha was .81.

**Ludic love style.** Respondents completed the Ludus subscale developed by Hendrick and Hendrick (1986). Respondents indicated their degree of agreement or disagreement with each of the seven statements using a 5-point scale (ranging from 1 = ‘strongly disagree’ to 5 = ‘strongly agree’). An overall score is generated by summing across items, with higher scores indicating relatively greater tendencies toward experiencing romantic love relationships as strategic games in which depth of involvement is to be avoided and the relationship partner is kept guessing about the status of the relationship. In the current study, Cronbach’s alpha for this measure was .69.

**Sexual sensation seeking.** Respondents completed the sexual sensation seeking subscale from Kalichman and Rompa (1995). Respondents indicated their degree of agreement or disagreement with each of the seven statements using a 5-point scale (ranging from 1 = not at all like me to 4 = very much like me). An overall score is generated by summing across items, with higher scores indicating relatively greater tendencies toward seeking out new and varied sexual experiences and taking sexual risks. In the current study, Cronbach’s alpha for this measure was .82.

**Ability to deceive.** To measure respondents’ self-perceived ability to successfully deceive a dating partner, three face-valid items were written for use in the current study: (i) ‘I could keep a secret from a dating partner and feel confident that I would not let the secret out’; (ii) ‘If it is important to do so, I could keep
a dating partner from finding out about something I did’; and (iii) ‘I can be pretty effective at hiding the truth if it would spare my dating partner’s feelings’. Respondents indicated whether each item was generally true (scored 1) or generally false (scored 0). A n overall score was generated by summing across items (range = 0–3) with higher scores indicating relatively greater self-perceived ability to deceive a dating partner. Cronbach’s alpha was .67.

**Dating and ED history.** In a questionnaire constructed for the current study, respondents were asked whether she or he had ‘ever been involved in a serious dating relationship’. With regard to sexual experience, respondents were presented with separate questions asking whether she or he had ‘ever experienced oral sex performed on you (another person’s mouth stimulating your genitals)’, ‘ever performed oral sex (your mouth stimulating someone’s genitals)’, and ‘ever experienced sexual intercourse (penis in vagina)’.

With regard to ED dating experience, respondents were presented with the following item: ‘Sometimes individuals are involved in a serious dating relationship with one person but find themselves romantically or sexually attracted to another person. Have you ever been involved in a serious dating relationship and gone on a date with someone else?’ Respondents who answered ‘yes’ were asked, ‘How many different people have you dated while you were involved in a serious dating relationship with someone else?’

With regard to ED sexual experience, respondents were presented with the following instructions: ‘Please use the following scale to indicate your level of experience for each behavior with someone other than your primary partner while you were involved in a serious dating relationship.’ A 4-point scale was provided: 1 = Never had the opportunity (and never engaged in the behavior), 2 = Had the opportunity but did not engage in the behavior, 3 = Have engaged in this behavior once, 4 = Have engaged in this behavior more than once. Respondents were then presented with a list of sexual behaviors, preceded by the stem ‘While involved in a serious dating relationship, I have . . .’. The ED sexual behaviors were ‘romantically kissed someone other than my steady dating partner’, ‘made out’ (kissing and fondling) with someone other than my steady dating partner’, ‘performed oral sex (your mouth on their genitals) for someone other than my steady dating partner’, ‘received oral sex (another person’s mouth on your genitals) from someone other than my steady dating partner’, and ‘had sexual intercourse (penis in vagina) with someone other than my steady dating partner’.

**Procedure**

All respondents were recruited through the course subject pool and were unaware of the nature of the study at the time of initial sign-up. Upon arriving at the testing site and learning of the nature of the study, none of the students refused to participate. Respondents completed the anonymous questionnaires in mixed-gender groups of 5–20 participants in the presence of the second author (an age-mate) or one other female research assistant of the same age.

**Results**

Because the probability (p) values associated with inferential statistics are driven by both effect size and sample size, and the current sample was
relatively large, we chose to report effect size indices. For group comparisons, Cohen's (1969) effect size statistic $d$ was calculated as the difference between the mean score of the group with the greater score (or rating) and the group with the lower score (or rating) divided by the pooled standard deviation (also see Rosenthal & Rosnow, 1991). Cohen (1969) considered $d = .80$ or greater as a large effect, $d$ values around $.50$ as moderate, and those around $.20$ as small. We decided to consider findings noteworthy if they were both statistically significant ($p < .05$) and had an effect size of $.30$ or greater (between a small and moderate effect).

**ED dating**

In considering rates of ED dating, we only analyzed responses from those men ($n = 264$) and women ($n = 354$) who indicated that they had ever experienced a serious dating relationship, without which it would be impossible to have had the opportunity for ED dating experience. Of this majority subsample, equal proportions of men (44.7%) and women (39.5%) indicated that they had engaged in ED dating. $\chi^2(1, N = 618) = 1.57, p < .21, d = .11$. Of those respondents with such experience, more men (62.9%) than women (37.4%) had had multiple ED dating partners, $\chi^2(1, N = 258) = 16.48, p < .001, d = .53$. Men's number of different ED dating partners ranged from one to nine. However, most (68.5%) of the men reporting more than one ED dating partner indicated having had two or three. Women's number of different ED dating partners ranged from one to five. The large majority (86.5%) of the women who reported more than one ED dating partner indicated having had two or three.

What about the individual correlates of having engaged in ED dating? Current age and religiosity were unrelated to ED dating experience and were not considered further. However, we simultaneously entered the remaining six independent variables that had demonstrated statistically meaningful bivariate relationships with ED dating ($d = .36-.85$) into a logistic regression analysis to predict ED dating experience (coded 0 = No versus 1 = Yes). The resulting logistic regression equation was statistically significant: Model $\chi^2(6, N = 611) = 145.73, p < .001$; Goodness-of-fit $= 618.93, p < .41$; 72.82 percent of cases correctly classified. Simultaneously controlling for the effects of the other variables in the equation, only scores on the exploitiveness (partial $r = .05, p < .04$), sexual sensation seeking (partial $r = .08, p < .01$) and ludic love style (partial $r = .21, p < .001$) scales were predictive of ED dating experience. Individuals who had ED dating experience scored relatively higher on exploitiveness, sexual sensation seeking and ludic love style.

**ED sexual experience**

The proportions of men and women who had engaged in each form of ED sexual involvement are presented in Table 1. As with ED dating, the proportions are based on the subset of respondents who had ever been involved in a serious dating relationship and had experienced the particular form of sexual activity under consideration. That is, it would be impossible to have had ED fellatio if the respondent had never experienced fellatio in any context. Note that the majority of men and women had experienced ED romantic kissing (no gender difference). However, for the other forms of ED sexual activity, the proportions of men and women who had experienced each decreases, with men indicating greater incidence of each activity relative to women (as hypothe-
sized). The middle portion of Table 1 displays the percentages of men and women who had experienced each form of ED involvement more than once (among those who had ever experienced the activity).

What about the correlates of ED sexual experience? To address this question, we constructed a composite index of ED sexual involvement based on the proportion of the five ED sexual activities each respondent engaged in out of the number of such ED behaviors the respondent was ‘eligible’ for (based on her or his non-ED dating and sexual experience). In other words, of the different sexual behaviors the respondent had ever engaged in (the possibilities were kissing, fondling, performing oral sex, receiving oral sex, sexual intercourse), what proportion of those different types of behavior had the respondent experienced in an ED context? Possible values on this index could range from 0 to 1.00. The mean score for men \((n = 264)\) was .592 \((SD = .431)\) versus a mean score of .441 \((SD = .408)\) for women \((n = 354)\), \(F(1,616) = 19.54, p < .001, d = .35.\)

In other words, on average, 59.2 percent of the different types of sexual activities men had ever experienced they had also experienced with at least one ED partner. Among women, 44.1 percent of the different types of sexual activities the respondents had ever experienced, they had experienced with at least one ED partner. Men had greater overlap than did women between the different types of sexual activities ever experienced and those experienced in an ED context. Incidentally, 36.7 percent of the women and 28.4 percent of the men had not engaged in any of the ED forms of sexual activity for which they were ‘eligible’. In contrast, 26.0 percent of the women and 43.6 percent of the men engaged in 100 percent of the ED forms of sexual activity that she or he had also experienced in non-ED contexts.

Contrary to the hypotheses, religiosity, entitlement and exploitiveness were unrelated to the index of ED sexual experience, and were not considered further. However, we conducted a multiple regression analysis in which the remaining four independent variables that demonstrated meaningful bivariate relationships with ED sexual experience \((rs = .20-.31)\) for each group were entered simultaneously to predict respondents’ scores on the index of ED.

### Table 1

<table>
<thead>
<tr>
<th></th>
<th>Men (%)</th>
<th>n</th>
<th>Women (%)</th>
<th>n</th>
<th>(\chi^2)</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever experienced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED romantic kiss</td>
<td>68.2</td>
<td>264</td>
<td>61.0</td>
<td>354</td>
<td>3.37</td>
<td>.15</td>
</tr>
<tr>
<td>ED kissing and fondling</td>
<td>64.8</td>
<td>264</td>
<td>49.4</td>
<td>354</td>
<td>14.44**</td>
<td>.31</td>
</tr>
<tr>
<td>Performing of ED oral sex</td>
<td>47.2</td>
<td>214</td>
<td>29.3</td>
<td>283</td>
<td>16.69**</td>
<td>.38</td>
</tr>
<tr>
<td>Receiving ED oral sex</td>
<td>53.4</td>
<td>238</td>
<td>30.6</td>
<td>291</td>
<td>28.11**</td>
<td>.48</td>
</tr>
<tr>
<td>ED sexual intercourse</td>
<td>49.1</td>
<td>230</td>
<td>30.8</td>
<td>273</td>
<td>17.66**</td>
<td>.38</td>
</tr>
</tbody>
</table>

|                        |         |    |            |    |            |    |
| If ever experienced, experienced more than once |         |    |            |    |            |    |
| ED romantic kiss       | 81.1    | 180| 63.0       | 216| 15.77**    | .41|
| ED kissing and fondling| 83.0    | 171| 64.0       | 185| 16.06**    | .44|
| Performing of ED oral sex | 85.1 | 101| 68.7       | 83 | 7.14*      | .40|
| Receiving ED oral sex  | 78.0    | 127| 69.7       | 89 | 1.89       | .19|
| ED sexual intercourse  | 85.8    | 113| 61.9       | 84 | 14.98**    | .58|

* \(p < .01; ** p < .001.\)
sexual experience. The resulting regression equation was statistically significant, Multiple $R = .35$, $F(4, 614) = 21.45$, $p < .001$. When simultaneously controlling for the effects of the other variables in the equation, only ludic love style (standardized $\beta = .18$, $p < .001$) and sexual sensation seeking (standardized $\beta = .17$, $p < .001$) maintained statistically significant relationships with ED sexual experience. Those men and women with relatively greater ED sexual experience scored higher on measures of ludic love style and sexual sensation seeking.

**Discussion**

Despite cultural disapproval of ED activity (Hansen, 1987; Lieberman, 1988), many young men and women in the current sample already had engaged in some form of ED involvement during dating, despite only being 19 years of age on average. Of the entire sample of respondents who had ever been involved in a ‘serious’ dating relationship, 75 percent of the men and 68 percent of the women had engaged in at least one form of ED dating and/or ED sexual activity. Unfortunately, we do not know the functions ED involvement served or the perceptions students held regarding their ED behavior. Further research is needed to examine how people view their own ED activity and the perceived impact it has on their primary relationships during dating. It is possible that many instances of ED dating represent a transition from one ‘serious’ relationship to a new such relationship with the ED partner.

Regarding ED sexual involvement, the majority of both men and women who had experienced a ‘serious’ dating relationship had engaged in romantic kissing with an ED partner. In fact, about 50 percent more men and women had engaged in ED kissing than in ED dating. Again, because we did not ask about the context of ED activity, we cannot definitively explain why ED kissing appeared to be more prevalent than ED dating. We speculate, however, that many instances of ED kissing occurred in social settings such as parties, dances or bars in which the respondent and the ED partner met and went on to engage in ED kissing without being on a ‘date’ per se.

For both ED dating and ED sexual involvement, sexual sensation seeking and a ludic love style were unique predictors. Prior research using the same ludic love scale revealed that men exhibit a more ludic love style relative to women (Bailey, Hendrick, & Hendrick, 1987; Hendrick & Hendrick, 1995), and that those with a ludic love style have greater numbers of sex partners (Hensley, 1996), greater tendency toward sexual aggression (Sarwer, Kalichman, Johnson, Early, & Ali, 1993), and less satisfaction with, and likelihood of remaining involved in, their current dating relationship (Hendrick, Hendrick, & Adler, 1988).

The current results may help explain why those young men and women with a more ludic love style appear to have increased sex partners (some of whom are probably ED partners), and the results of prior research may help explain why a ludic love style is related to ED involvement (ludic lovers are less satisfied with their primary relationship). Still, additional research is needed to examine links among a ludic love style, relationship satisfaction and dissolution, sexual aggression, and ED dating and sexual experience during dating. It is possible that engaging in ED activity disposes individuals to see themselves as ludic in their orientation to intimate relationships.
Similar issues and questions are raised by the findings regarding sexual sensation seeking. Both sexual sensation seeking and ludic love style were related to ED experience, even after statistically controlling for the effects of the other. Further research is needed to determine whether a desire for sexual variety drives the relationship between ED sexual activity and sexual sensation seeking, or whether this association is caused by an underlying complex of personality traits involving disinhibition and extraversion, as previous authors have postulated (Simpson & Gangestad, 1991).

Many questions remain for future investigation. From the Kelley et al. (1983) model of influences on close relationships, relevant O and E variables remain untapped topics for future research. Greater understanding of the factors related to ED involvement during dating have important implications for understanding how adolescents and young adults balance exclusivity norms with conflicting temptations, impulses and desires. Also, is ED experience during dating related to subsequent extramarital involvement? Last, further investigation is needed to determine the factors related to ED involvement during dating later in life, as the current sample was limited to college students who were relatively young adults.

REFERENCES


