Out-of-body experience

Sex-based harassment linked to general dissociation, sexual dissociation, and sexual communication

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Abstract

Purpose – Although prior research has indicated that posttraumatic stress symptoms may result from sex-based harassment, limited research has targeted a key posttraumatic outcome – dissociation. Dissociation has been linked to experiences of betrayal trauma and institutional betrayal; sex-based harassment is very often a significant betrayal creating a bind for the target. The purpose of this paper is to extend existing research by investigating the relationship between sex-based harassment, general dissociation, sexual dissociation and sexual communication.

Design/methodology/approach – This exploratory study utilized self-report measures from a sample of male and female Oregon residents using Amazon Mechanical Turk (N = 582).

Findings – Results of regression analyses indicated that harassment statistically predicted higher general dissociation, higher sexual dissociation and less effective sexual communication, even after controlling for prior sexual trauma experiences. Results did not indicate any significant interactions between gender and harassment.

Practical implications – When considering the effects of sex-based harassment on women and men, clinicians and institutional organizations should consider the role of dissociation as a possible coping mechanism for harassment.

Originality/value – These correlational findings provide evidence that sex-based harassment is uniquely associated with multiple negative psychological outcomes in men and women.

Keywords Harassment, Dissociation, Sexual communication, Sexual trauma

Paper type Research paper

“It was like an out-of-body experience [...] [...] I pretended it hadn’t really happened [...] I kept moving because it was part of my job, and I knew he was, at the time, a very important guy, and certainly important to me. I trusted him.” Jessica Teich, describing Richard Dreyfus (Yuan, 2017)

In 2006, Tarana Burke, a civil rights activist from the Bronx, began using the phrase “Me Too” to raise awareness for sexual violence. The use of the #MeToo hashtag exploded online on October 15, 2017, when actress Alyssa Milano tweeted: “If all the women who have been sexually harassed or assaulted wrote ‘Me too’ as a status, we might give people a sense of the magnitude of the problem.” By the next day, 4.7m people used the hashtag in 12m posts on Facebook, sharing personal accounts of sexual violence (Khomami, 2018). Sexual violence and sex-based harassment, topics that are often stigmatized and hushed, were suddenly thrust into popular discourse.

Sex-based harassment

Although the recent #MeToo movement raised public awareness of sexual violence, scholars have conducted research on sex-based harassment for decades. The term “sex-based harassment” is more comprehensive than the term “sexual assault,” which tends to focus solely on criminal sexual behavior (Cook et al., 2018). Sexual violence researchers generally consider sex-based harassment to include three types of discriminatory conduct: sexual coercion,
unwanted sexual attention and gender harassment (Cook et al., 2018). Sexual coercion, also
termed “quid pro quo” harassment, involves a person in power demanding sexual favors
through threats of professional punishment/retaliation or in exchange for a professional
advantage. Unwanted sexual attention consists of unwanted and pervasive romantic or sexual
advances. Gender harassment, the most common type of sex-based harassment (Leskinen et al.,
2011), involves pejorative remarks or behaviors that belittle another person based on gender
(Cook et al., 2018).

These three types have been conceptualized in an “iceberg” model of sex-based
harassment, in which the majority of harassment goes unnoticed and unaddressed (National
Academies of Sciences, Engineering, and Medicine, 2018). At the tip of the iceberg sits the
most apparent forms of sex-based harassment, including sexual coercion and forms of
unwanted sexual attention. Submerged under the water, away from public consciousness,
lie less noticeable forms of unwanted sexual attention and gender harassment, including
gender slurs, sexist comments and obscene gestures.

**Prevalence and outcomes of sex-based harassment**

While many consider sex-based harassment to be an infrequent, mild form of sexual
violence, research suggests otherwise. Fitzgerald (1993) estimated that approximately
50 percent of women experience sex-based harassment in the workplace. A second study
found that 63 percent of female university employees and 68 percent of female private-sector
employees experience harassment (Schneider et al., 1997). Other studies have found higher
rates of sex-based harassment for women in male-dominated environments (Fitzgerald et al.,
1997; Street et al., 2007). Ilies et al. (2003) found that 24 percent of women considered
themselves victims of sex-based harassment, and 58 percent of women responded
affirmatively to at least one behaviorally-specific harassment situation. Estimates that
consistently indicate harassment is pervasive have led Fitzgerald (2017) to label sexual
harassment as “still the last great open secret” (p. 483). Although men do experience
sex-based harassment (Waldo et al., 1998), rates for men tend to be lower than for women
(Rosenthal et al., 2016).

Sex-based harassment in the workplace predicts multiple negative outcomes among
women, including psychological distress, physical health outcomes, job absenteeism and job
turnover (e.g. Fitzgerald, 1993; Fitzgerald et al., 1997; Schneider et al., 1997). Similar outcomes
have been found for men (Holland et al., 2016). The effects of sex-based harassment may be
more intense for repeated, “unseen” incidences of gender harassment than for less frequent,
albeit more visible, incidences of sexual coercion (Sojo et al., 2016; Langhout et al., 2005).
Vicarious observation of harassment at work has also been linked to workplace withdrawal
and decreased well-being (Miner-Rubino and Cortina, 2007). Other studies have tied workplace
harassment experiences to disordered eating (Harned, 2000), depressive and anxious
symptoms (Reed et al., 2016) and alcohol abuse (Rosenda et al., 2008).

Research has also found that workplace sex-based harassment can have effects typical of
trauma exposure. One study found that harassment predicts severity of posttraumatic
stress symptoms, including re-experiencing, hyperarousal, sleep problems and avoidance
(Palmieri and Fitzgerald, 2005). This relationship persists even after controlling for prior
trauma (Stockdale et al., 2009; Mc Dermut et al., 2000).

Studies of harassment in educational institutions have found similar results. Harassment
has been linked to students’ perceptions of unfairness in the classroom (Cortina et al., 1998),
low academic confidence (Cortina et al., 1998), low academic satisfaction (Huerta et al., 2006),
disengagement from academics (Huerta et al., 2006) and avoidance of classes or professors
(Fitzgerald et al., 1988). Rosenthal et al. (2016) found that sex-based harassment in a
graduate school sample was associated with posttraumatic stress symptoms, even after
accounting for other victimization.
Unexplored associations of harassment

As it stands, further investigation is needed into outcomes associated with sex-based harassment. Although studies have looked at posttraumatic stress symptoms that result from harassment, few studies have targeted a key posttraumatic outcome – dissociation. Dissociation is characterized by a disconnection or disintegration among one’s consciousness, memory and the external environment (DePrince and Freyd, 2007; Zurbriggen and Freyd, 2004). Dissociative symptoms can range from a mild instance of “highway hypnosis” to an “out-of-body” experience. In other cases, they may manifest as significant memory lapses or severe identity confusion. Dissociation is one of the most well-studied posttraumatic symptoms in the field of trauma; survivors of trauma report elevated levels of dissociation not only during the trauma itself (Lensvelt-Mulders et al., 2008), but also increased dissociative tendencies (Bremner and Brett, 1997; Chu and Dill, 1990) and difficulties with emotional awareness (Polusny et al., 2008) that extend beyond the trauma.

Although often lumped with other posttraumatic stress symptoms, dissociation is of particular interest to examine with regard to sex-based harassment. The relationship between dissociation and interpersonal trauma has a strong theoretical foundation in betrayal trauma theory (Freyd, 1994, 1996). Betrayal trauma theory posits that dissociation serves as an adaptive mechanism to cope and preserve necessary relationships on which the survivor might depend (Freyd, 1996; Freyd and Birrell, 2013). In line with this theory, research has demonstrated that survivors of abuse perpetrated by a close and trusted other report increased dissociation and memory impairments (DePrince and Freyd, 2007; Freyd et al., 2005; Goldsmith et al., 2012).

Experiences of betrayal by a trusted institution, termed institutional betrayal, have also been linked to increased dissociation, even when controlling for prior experiences of trauma (Smith and Freyd, 2017). Institutional betrayal occurs when a trusted institution fails to adequately address – or is actively complicit in – the mistreatment of one of its members (Smith and Freyd, 2014). A workplace may commit institutional betrayal by failing to investigate a worker’s report of sexual assault or actively covering up the assault. Like institutional betrayal, sex-based harassment may not involve any physical contact, but is often perpetrated by others in authority and power positions. Thus, dissociation may be important to assess when considering the outcomes of sex-based harassment. Similar to those experiencing interpersonal and institutional betrayal, those experiencing harassment may develop dissociative tendencies to maintain relationships that preserve their sense of security in society or the workplace. Only one study to our knowledge has explored the relationship between dissociation and any type of sexual harassment. This study found that dissociation was significantly associated with childhood sexual harassment in a sample of 287 psychiatric outpatients in Germany and Switzerland (Mueller-Pfeiffer et al., 2013).

In addition, no study to our knowledge has assessed the associations of sex-based harassment on sexual outcomes. Multiple studies have documented the relationship between sexual trauma and sexual satisfaction and sexual functioning (O’Driscoll and Flanagan, 2016; Stephenson et al., 2012). In this study, however, we focus on the association between harassment, sexual dissociation and sexual communication. Sexual dissociation is a specific manifestation of a general dissociative tendency; it can be defined as “someone engaging in sexual activity without attending to her or his own feelings of fear, pleasure, or safety” (Zurbriggen and Freyd, 2004, p. 149). Although few studies exist looking at the relationship between sexual dissociation and trauma, Hansen et al. (2012) found that child sexual abuse among a sample of 57 adults with HIV predicted increased rates of dissociation during sexual activity. Similarly, Rosenthal and Freyd (2017) found that childhood betrayal trauma predicted diminished sexual communication, when accounting for trait dissociation in general and dissociation during sex specifically. The authors conclude that these experiences of trauma appear “to initiate a trajectory wherein survivors’ trauma symptoms
inhibit their capacity to communicate clearly with sexual partners” (Rosenthal and Freyd, 2017, p. 14). Sexual dissociation and sexual communication may be relevant to examine with regard to sex-based harassment because harassment — even harassment that is not overtly sexual — can reflect sexist stereotypes that may have implications for sexual behavior. If someone is experiencing harassment, and this mistreatment is not addressed, these feelings may be internalized, specifically during sex. Victims may be less able to attend to their sexual needs or consider their needs important, and then, in turn, be less able express their needs to their partner (Zurbriggen and Freyd, 2004).

The current study
In the present study, we examined sex-based harassment and its association with general dissociation, sexual dissociation and sexual communication. The aims of the study included:

1. to explore the relationship of sex-based harassment with general dissociative tendencies, sexual dissociation and sexual communication;
2. to assess if any significant relationships between sex-based harassment and the three outcomes remain, even after controlling for other prior sexual trauma experiences; and
3. to assess gender differences in the relationship between sex-based harassment and general dissociative tendencies, sexual dissociation and sexual communication.

Method
Participants
Data were collected from Oregon residents ages 18–35 through Amazon Mechanical Turk (MTurk; N = 668) as part of a larger study. MTurk is a resource offered through Amazon.com where users complete tasks or surveys online for monetary compensation. MTurk is a commonly used sampling method for social science research and has been found to be more demographically diverse than university convenience samples (Buhrmester et al., 2011). In this study, participants who failed attention-check questions (n = 18), completed less than < 50 percent of the survey items (n = 38), or who did not live in Oregon (n = 4) were removed for purposes of analysis. Although participants could choose options other than male or female for their gender, those who identified as other/transgender (n = 26) could not be included in the analyses because of low power. The sample used for analysis (n = 582) was 56.5 percent female and 43.5 percent male. The mean age of participants was 27.4 (SD = 4.7). The majority of the sample was heterosexual (82.1 percent) and White (90.0 percent). Additional demographic characteristics are presented in Table I.

Measures
The measures used in this study were collected from a multi-component study targeting young adult residents of Oregon. The original study included both self-report measures and an experimental manipulation examining the effects of viewing college sports videos (Adams-Clark et al., in preparation). This current report analyzes self-report measures of trauma exposure, sex-based harassment victimization, general dissociative tendencies, sexual dissociative tendencies and sexual communication, all of which preceded the experimental manipulation.

Prior sexual trauma. Prior sexual trauma history was measured using four items from the Brief Betrayal Trauma Survey (BBTS; Goldberg and Freyd, 2006). Prior research has indicated that the BBTS is a valid measure of trauma (DePrince, 2001) and demonstrates adequate reliability (Goldberg and Freyd, 2006). The four items included were: “You were made to have some form of sexual contact, such as touching or penetration, by someone
with whom you were very close (such as a parent or lover) before the age of 18”; “You were made to have some form of sexual contact by someone with whom you were very close after the age of 18”; “You were made to have such sexual contact by someone with whom you were not close before the age of 18”; and “You were made to have such sexual contact by someone with whom you were not close before the age of 18.” Participants indicated if the respective situation had occurred “Never,” “One or two times,” or “More than that.” Consistent with prior research (Freyd et al., 2005), each item was scored dichotomously; responses were coded as “0” if the event never happened and “1” if the event occurred at least once. These scores were then summed to create a continuous Prior Sexual Trauma score ranging from 0 to 4.

**Sex-based harassment.** Sex-based harassment was measured using a modified version of the shortened Sexual Experiences Questionnaire-DoD (SEQ-DoD-s; Stark et al., 2002). The SEQ-DoD-s originally consists of 16 items. Consistent with Rosenthal et al. (2016), three items were added to the scale to measure electronic harassment (e.g. someone “spread unwelcome sexual rumors about you by text, e-mail, Facebook, or other electronic means”). Each item asks participants to rate how frequently they have encountered a certain sex-based harassment situation in any context in their lifetime. Participants rated each item on a Likert-type scale that ranges from 0 to 4, where 0 corresponds to “Never,” 1 corresponds to “Once or Twice,” 2 corresponds to “Sometimes,” 3 corresponds to “Often” and 4 corresponds to “Many Times.” The first item of the questionnaire (“you have been treated differently...
because of your sex”) was eliminated in line with recent research (Rosenthal et al., 2016). The 18 item ratings were summed and averaged to create an average sex-based harassment scale score, where higher scores represented more frequent sex-based harassment victimization. In this study, this scale demonstrated satisfactory reliability (Cronbach’s $\alpha = 0.95$). The distribution of scores for women (Skew = 0.90, SE = 0.14; Kurtosis = 0.63, SE = 0.27) and men (Skew = 1.18, SE = 0.16; Kurtosis = 0.73, SE = 0.31) were in the acceptable ranges (George and Mallery, 2010).

**General dissociative tendencies.** General dissociative tendencies were measured using the 40-item Wessex Dissociation Scale (WDS) (Kennedy et al., 2004). Each item was rated on a Likert-type scale that ranges from 0 to 5, where 0 corresponds to “Never,” 1 corresponds to “Rarely,” 2 corresponds to “Sometimes,” 3 corresponds to “Often,” 4 corresponds to “Very Often” and 5 corresponds to “All the Time.” An example item from this scale is “I notice myself doing things that do not make sense.” The 40-item ratings were summed and averaged to create an average WDS total score, where higher scores represent higher general dissociative tendencies. In this study, this scale demonstrated satisfactory reliability (Cronbach’s $\alpha = 0.96$). The distribution of scores for women (Skew = 1.03, SE = 0.14; Kurtosis = 0.87, SE = 0.28) and men (Skew = 0.93, SE = 0.16; Kurtosis = 0.65, SE = 0.32) were in the acceptable ranges.

**Sexual dissociative tendencies.** Sexual dissociation was measured using the six-item Sexual Dissociation Scale (SDS) (Rosenthal and Freyd, 2017). Each item was rated on a Likert-type scale that ranges from 1 to 5, where 1 corresponds to “Strongly Disagree,” 2 corresponds to “Disagree,” 3 corresponds to “Neither Agree nor Disagree,” 4 corresponds to “Agree” and 5 corresponds to “Strongly Agree.” An example item from this scale is “During sexual activity, I have felt as though I was watching myself from outside my body.” The six-item ratings were summed and averaged to create an average SDS score, where higher scores represent higher sexual dissociative tendencies. In this study, this scale demonstrated satisfactory reliability ($\alpha = 0.86$). The distribution of scores for women (Skew = 0.59, SE = 0.14; Kurtosis = −0.61, SE = 0.27) and men (Skew = 0.60, SE = 0.16; Kurtosis = −0.49, SE = 0.31) were in the acceptable ranges.

**Sexual communication.** Sexual communication was measured using the five-item Sexual Communication Scale (SCS) (Rosenthal and Freyd, 2017). Each item was rated on a Likert-type scale that ranges from 1 to 5, where 1 corresponds to “Strongly Disagree,” 2 corresponds to “Disagree,” 3 corresponds to “Neither Agree nor Disagree,” 4 corresponds to “Agree” and 5 corresponds to “Strongly Agree.” An example item from this scale is “If something doesn’t feel good during sexual activity, I say so.” The five-item ratings were summed and averaged to create an average SCS score, where higher scores represent more effective sexual communication. In this study, this scale demonstrated adequate reliability (Cronbach’s $\alpha = 0.78$). The distribution of scores for women (Skew = −0.27, SE = 0.14; Kurtosis = −0.68, SE = 0.27) and men (Skew = −0.06, SE = 0.15; Kurtosis = −0.61, SE = 0.31) were in the acceptable ranges.

**Demographics questionnaire.** Participants were asked to report their age, gender, race/ethnicity, highest education completed and sexual orientation.

**Procedure**

An online version of this study was created through Qualtrics survey software, and the survey link was distributed to participants through Amazon Mechanical Turk. Participants were informed of study procedures and content through an informed consent process. Participants were required to accurately respond to at least four out of the five attention-check items that were placed throughout the survey to ensure response quality (e.g. Rosenthal et al., 2016; Rosenthal and Freyd, 2017). After completing the study, participants received $2 in
compensation and were presented with debriefing materials, including contact information for sexual violence resources. All study procedures were approved by the institution’s Office of Research Compliance (Institutional Review Board).

Results

Data preparation

Data were analyzed using R Version 3.5.2 (R Core Team, 2018) and R packages stats (Version 3.5.2; R Core Team, 2018) and tidyverse (Version 1.2.1; Wickham, 2017). A dummy-coded dichotomous variable was created to represent participant gender (0 = male and 1 = female). The data were assessed for “extreme” outliers, defined as $3.0 \times$ interquartile range above the third quartile or below the first quartile. There was one data point among women’s dissociation scores that met this criterion, and it was removed before conducting analyses. Missing data were deleted pairwise for correlation and regression analyses. All continuous variables were centered for regression analyses.

Preliminary analyses

On the BBTS, 50.5 percent of women and 25.3 percent of men reported at least one incident of unwanted sexual contact. Eight women and 29 men endorsed none of the sex-based harassment items on the SEQ (rated all 18 items as 0). Women reported experiencing an average of 11.74 (SD = 4.93) of the 18 sex-based harassment situations at least once (median = 12; mode = 17). Men endorsed an average of 7.24 (SD = 5.55) of the 18 sex-based harassment situations at least once (median = 7, mode = 0). Percentages of women and men endorsing each harassment item at least once are listed in Table II. $\chi^2$ tests of independence were conducted on the frequencies of men and women reporting each item of sex-based harassment at least once. A Bonferroni correction was used to correct for the number of tests, adjusting the alpha level to 0.002. Results indicated that significantly more women experienced each type of harassment than men, with the exception of "spread unwelcome sexual rumors about you by text, e-mail, Facebook or other electronic means" and "called you gay or lesbian in a negative way by text, e-mail, Facebook or other electronic means" (see Table II).

Descriptive statistics for summed scale scores, stratified by gender, are presented in Table III. A series of $t$-tests were conducted, and male and female participants differed significantly in self-reported prior sexual trauma, sex-based harassment, sexual dissociation and sexual communication scores, but not in general dissociation scores.

Correlation analyses

Correlations were estimated using Pearson’s $r$ correlation coefficients. Sex-based harassment scores were positively correlated with prior sexual trauma, general dissociation and sexual dissociation scores, and negatively correlated with sexual communication scores, for both women and men, $p < 0.001$ (see Table III).

Regression analyses

In order to assess the predictive power of sex-based harassment, controlling for sexual trauma history, a linear regression model for each outcome variable (general dissociation, sexual dissociation and sexual communication) was conducted. The first step of each model contained the prior sexual trauma and gender predictors. In the second step, the sex-based harassment predictor was added, representing its predictive power above and beyond prior sexual trauma. In the third step, gender $\times$ prior sexual trauma and gender $\times$ sex-based harassment interaction terms were added to assess for gender differences (see Table IV). The first step of the general dissociation model was significant,
The second step of the general dissociation model was also significant, \(F(1, 519) = 138.99, p < 0.001, \Delta R^2 = 0.20\), such that higher harassment scores statistically predicted higher dissociation scores. The third step was also significant, \(F(2,517) = 9.12, p < 0.001, \Delta R^2 = 0.08\). In this third step, only the gender × prior sexual trauma interaction was significant, \(b = -0.17, t(517) = -2.75, p < 0.01\). The simple slope for

<table>
<thead>
<tr>
<th>Rate how frequently you have been in a situation where someone</th>
<th>Women (n (%))</th>
<th>Men (n (%))</th>
<th>(\chi^2)-test of independence for (df = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Displayed, used, or distributed sexist or suggestive materials?</td>
<td>261 (79.3%)</td>
<td>141 (55.7%)</td>
<td>36.28***</td>
</tr>
<tr>
<td>2. Made offensive sexist remarks?</td>
<td>296 (90.0%)</td>
<td>170 (67.2%)</td>
<td>46.36***</td>
</tr>
<tr>
<td>3. Put you down or was condescending to you because of your sex?</td>
<td>287 (87.2%)</td>
<td>122 (48.2%)</td>
<td>103.38***</td>
</tr>
<tr>
<td>4. Repeatedly told sexual stories or jokes that were offensive to you?</td>
<td>260 (79.0%)</td>
<td>138 (54.5%)</td>
<td>39.32***</td>
</tr>
<tr>
<td>5. Made unwelcome attempts to draw you into a discussion of sexual matters?</td>
<td>249 (75.7%)</td>
<td>120 (47.4%)</td>
<td>48.78***</td>
</tr>
<tr>
<td>6. Made offensive remarks about your appearance, body, or sexual activities?</td>
<td>282 (85.7%)</td>
<td>148 (58.5%)</td>
<td>55.81***</td>
</tr>
<tr>
<td>7. Made gestures or used body language of a sexual nature which embarrassed or offended you?</td>
<td>267 (81.2%)</td>
<td>134 (53.0%)</td>
<td>52.88***</td>
</tr>
<tr>
<td>8. Made unwanted attempts to establish a romantic sexual relationship with you despite your efforts to discourage it?</td>
<td>245 (74.5%)</td>
<td>116 (42.7%)</td>
<td>60.16***</td>
</tr>
<tr>
<td>9. Continued to ask you for dates, drinks, dinner, etc., even though you said &quot;No&quot;?</td>
<td>225 (68.4%)</td>
<td>84 (33.2%)</td>
<td>70.46***</td>
</tr>
<tr>
<td>10. Touched you in a way that made you feel uncomfortable?</td>
<td>245 (74.5%)</td>
<td>116 (42.7%)</td>
<td>76.34***</td>
</tr>
<tr>
<td>11. Made unwanted attempts to stroke, fondle, or kiss you?</td>
<td>225 (68.4%)</td>
<td>99 (39.4%)</td>
<td>38.71***</td>
</tr>
<tr>
<td>12. Made you feel like you were being bribed with a reward to engage in sexual behavior?</td>
<td>213 (65.0%)</td>
<td>84 (33.2%)</td>
<td>29.57***</td>
</tr>
<tr>
<td>13. Made you feel threatened with some sort of retaliation for not being sexually cooperative?</td>
<td>191 (58.1%)</td>
<td>84 (33.2%)</td>
<td>34.90***</td>
</tr>
<tr>
<td>14. Treated you badly for refusing to have sex?</td>
<td>213 (65.0%)</td>
<td>84 (33.2%)</td>
<td>33.15***</td>
</tr>
<tr>
<td>15. Implied better treatment if you were sexually cooperative?</td>
<td>191 (58.1%)</td>
<td>84 (33.2%)</td>
<td>33.15***</td>
</tr>
<tr>
<td>16. Sent or posted unwelcome sexual comments, jokes or pictures by text, e-mail, Facebook or other electronic means?</td>
<td>213 (65.0%)</td>
<td>84 (33.2%)</td>
<td>33.15***</td>
</tr>
<tr>
<td>17. Spread unwelcome sexual rumors about you by text, e-mail, Facebook or other electronic means?</td>
<td>191 (58.1%)</td>
<td>84 (33.2%)</td>
<td>33.15***</td>
</tr>
<tr>
<td>18. Called you gay or lesbian in a negative way by text, e-mail, Facebook or other electronic means?</td>
<td>191 (58.1%)</td>
<td>84 (33.2%)</td>
<td>33.15***</td>
</tr>
</tbody>
</table>

Note: ***p < 0.001

| Table III. Descriptive statistics and correlation matrices for sex-based harassment, general dissociation, sexual dissociation and sexual communication average scores |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                 | (\(n = 329\)) | (\(n = 253\)) | \(t\) (for mean difference) | 1 | 2 | 3 | 4 | 5 |
| 1. Prior sexual trauma | 0.50 (1.00) | 0.83 (1.05) | -3.81*** | - | 0.55*** | 0.19*** | 0.34*** | -0.24*** |
| 2. Sex-based harassment | 1.24 (0.83) | 0.67 (0.64) | -9.26*** | 0.41*** | - | 0.50*** | 0.39*** | -0.29*** |
| 3. General dissociation | 1.15 (0.67) | 1.18 (0.77) | 0.56 | 0.39*** | 0.55*** | - | 0.47*** | -0.27*** |
| 4. Sexual dissociation | 2.11 (0.93) | 1.91 (0.78) | -2.77*** | 0.34*** | 0.37*** | 0.53*** | - | -0.53*** |
| 5. Sexual communication | 3.49 (0.88) | 3.71 (0.72) | 3.29*** | -0.28*** | -0.21*** | -0.30*** | -0.47*** | - |

Notes: Descriptive statistics were calculated based on complete data for each measure: prior sexual trauma (321 women, 247 men), sexual harassment (323 women, 246 men), general dissociation (309 women, 234 men), sexual dissociation (320 women, 247 men) and sexual communication (318 women, 251 men). One outlier was also removed before analyses. Female participants are above diagonal and male participants below diagonal. **p < 0.01; ***p < 0.001

\(F(2, 520) = 16.09, p < 0.001, \Delta R^2 = 0.06\). The second step of the general dissociation model was also significant, \(F(1, 519) = 138.99, p < 0.001, \Delta R^2 = 0.20\), such that higher harassment scores statistically predicted higher dissociation scores. The third step was also significant, \(F(2,517) = 9.12, p < 0.001, \Delta R^2 = 0.08\). In this third step, only the gender × prior sexual trauma interaction was significant, \(b = -0.17, t(517) = -2.75, p < 0.01\). The simple slope for
men demonstrated a trend toward statistical significance, $b = 0.09$, $SE = 0.05$, $t = 1.89$, $p = 0.06$, and the simple slope for women was marginally significant, $b = -0.08$, $SE = 0.04$, $t = -2.02$, $p = 0.05$.

In the sexual dissociation model, the first step was significant, $F(2, 540) = 37.65$, $p < 0.001$, $\Delta R^2 = 0.12$. The second step was also significant, $F(1, 539) = 39.54$, $p < 0.001$, $\Delta R^2 = 0.06$, such that higher harassment scores statistically predicted higher sexual dissociation scores. The third step was not significant, $F(2, 537) = 0.03$, $p = 0.97$, $\Delta R^2 < 0.001$, indicating no significant differences between women and men.

### Table IV.

Regression coefficients predicting average general dissociation, sexual dissociation and sexual communication scores (centered) for participants

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor</th>
<th>$\beta$</th>
<th>$b$</th>
<th>SE</th>
<th>$t$</th>
<th>$\Delta R^2$</th>
<th>df</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intercept</td>
<td>0.00</td>
<td>0.07</td>
<td>0.05</td>
<td>1.57</td>
<td>0.058</td>
<td>2, 520</td>
<td>16.09***</td>
</tr>
<tr>
<td></td>
<td>Prior sex trauma</td>
<td>0.24</td>
<td>0.17</td>
<td>0.03</td>
<td>5.62***</td>
<td>0.199</td>
<td>1, 519</td>
<td>138.99***</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-0.08</td>
<td>-0.11</td>
<td>0.06</td>
<td>-1.78****</td>
<td>0.199</td>
<td>1, 519</td>
<td>138.99***</td>
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<td>2</td>
<td>Intercept</td>
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<td>0.02</td>
<td>0.04</td>
<td>4.49***</td>
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<td></td>
<td>Prior sex trauma</td>
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<td>-0.01</td>
<td>0.03</td>
<td>-0.40</td>
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<td>-0.32</td>
<td>0.06</td>
<td>-5.49***</td>
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<tr>
<td></td>
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<td>0.50</td>
<td>0.04</td>
<td>11.79***</td>
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<td>Intercept</td>
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<td>0.25</td>
<td>0.05</td>
<td>5.50***</td>
<td>0.084</td>
<td>2, 517</td>
<td>9.12***</td>
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<td>0.05</td>
<td>1.89****</td>
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<td>-0.36</td>
<td>0.06</td>
<td>-6.16***</td>
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<td>Gender x prior sex trauma</td>
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<td>-0.17</td>
<td>0.06</td>
<td>-2.75**</td>
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<td>Gender x sex harassment</td>
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<td>0.09</td>
<td>-1.64</td>
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Notes: $n = 581$. One outlier was also removed before analyses. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.008$
In the sexual communication model, the first step was significant, $F(2, 542) = 23.93, p < 0.001$, $\Delta R^2 = 0.08$. The second step was also significant, $F(1, 541) = 14.08, p < 0.001$, $\Delta R^2 = 0.02$, such that higher harassment scores statistically predicted lower sexual communication scores.

The third step was not significant, $F(2, 539) = 0.58, p = 0.97$, $\Delta R^2 = 0.002$, indicating no significant differences between women and men.

**Discussion**

The purpose of the present study was to investigate sex-based harassment and its unique association with general dissociation, sexual dissociation and sexual communication among men and women. General dissociation, sexual dissociation and sexual communication have been found in prior research to be related to multiple types of trauma, including sexual assault and childhood sexual abuse (e.g. Hansen et al., 2012; Rosenthal and Freyd, 2017).

Results of this study supported several of our exploratory hypotheses. First, we replicated the finding that sex-based harassment experiences are common among women and men, but women reported significantly higher sex-based harassment scores than men. New to this study, we found that harassment experiences were positively related to general dissociation scores, positively related to sexual dissociation scores, and negatively related to sexual communication scores, even after controlling for experiences of unwanted sexual contact.

Although causal relationships cannot be established, these results indicate that distressing experiences of harassment may, even in the absence of other sexual trauma or unwanted physical contact, lead to increased dissociative tendencies. Women and men may be using dissociation as a coping mechanism for mistreatment. As predicted by betrayal trauma theory (Freyd, 1996) and institutional betrayal (Smith and Freyd, 2014), this coping mechanism may allow harassed individuals to maintain relationships. When further interpreted in the context of research suggesting that confronting a harasser often leads to negative outcomes for the victim (Hesson-Mcinnis and Fitzgerald, 1997; Stockdale, 1998) and reporting harassment may lead to worsened outcomes (Bergman et al., 2002), it is understandable that women and men may engage in dissociation. This coping mechanism, while useful in the short-term, may have long-term consequences. Dissociation may produce cognitive and executive functioning deficits that may prevent people from fully engaging with their lives and put them at risk for revictimization (Stockdale et al., 2014).

Results also indicated that sex-based harassment was related to increased sexual dissociation and decreased sexual communication. Sex-based harassment may be having a silencing effect on victims, not only in the public domain in which it occurs, but also in their personal lives. These high levels of sexual dissociation, and low levels of sexual communication, may subsequently decrease sexual and relationship satisfaction among those experiencing high levels of sexual harassment. Sexual dissociation and communication deficits may then put individuals at risk for revictimization or unsafe sex practices (Zurbriggen and Freyd, 2004).

Although sex-based harassment was our primary predictor of interest, we found an unexpected interaction between gender and prior sexual trauma on dissociation, such that men with higher levels of sexual trauma reported a marginal increase in dissociation, and women reported a marginal decrease in dissociation. This finding stands in contrast to prior research indicating that women are at a greater risk for exhibiting posttraumatic stress symptoms after trauma (Tolin and Foa, 2008). A more likely explanation for this finding could be a result of the low number of men and women obtaining the highest sexual trauma scores, as well as the potential multicollinearity between the prior sexual trauma, sexual harassment, and interaction predictors.
Limitations
Although the results of the present study have societal implications, there are also limitations to the study that must be considered. First, we must be cautious when interpreting the relationships found in this study, as the data are cross-sectional in nature. Because of this, no causal claims can be garnered from this study alone. Consistent with prior research in the field of trauma, it is likely that sex-based harassment contributes to coping mechanisms that subsequent become challenging psychological consequences, such as the development of dissociative tendencies. However, it is theoretically possible that these psychological outcomes may precede any sex-based harassment, or that a third variable may account for this relationship.

Another limitation of this study is the lack of diversity in the sample. Due to the original study design, we sampled only young adult residents of the state of Oregon, the majority of whom were White and whose experiences of sex-based harassment may not be representative of the national population. This may be particularly problematic given that experiences of harassment may vary or intensify, depending on race/ethnicity (Buchanan and Fitzgerald, 2008) and sexuality (Rabelo and Cortina, 2014). In addition, although this study found significant gender differences in sex-based harassment between men and women, it is possible that our measure of sex-based harassment may not have adequately assess the forms of sex-based harassment that men are more likely to experience.

Implications and future directions
Results of this research have implications for organizational leaders, policymakers and clinicians. In order to create a healthy and equitable organizational climate, leaders should implement clear and enforceable policies preventing sex-based harassment. Clinicians working with women and men experiencing sex-based harassment should assess for dissociative symptoms – a hallmark of trauma – as well as sexual difficulties. It is vital that others understand that the harmful effects of even “mild” sex-based harassment can bleed into both the professional and personal lives of the harassed.

Future research should expand upon these findings by looking longitudinally at experiences of sex-based harassment and subsequent psychological outcomes in a more diverse sample, enabling researchers to establish causal relationships between sex-based harassment and psychological outcomes. Future research should also explore how the location/environment in which the harassment occurred, such as at work (Fitzgerald, 1993), on the street (Davidson et al., 2016; Mellgren et al., 2017), at home (Reed et al., 2005) or on the internet (Barak, 2005), influences psychological outcomes. In light of research findings indicating that the impact of harassment depends on the power of the perpetrator (Huerta et al., 2006), future research should also investigate how a person’s relationship with the harasser (stranger vs trusted other) may influence posttraumatic outcomes.

Conclusion
This study provides further evidence for the negative – and often traumatic – outcomes associated with sex-based harassment for both men and women. Results from this study suggest that sex-based harassment may be having a profound influence on victims, and even mild harassment should be acknowledged as a serious issue with potential psychological consequences. In line with theories of betrayal trauma and institutional betrayal, harassed individuals may be engaging in greater dissociation to cope with mistreatment. Despite its limitations, we hope this research will validate of the subjective experiences of those who have been harassed, inform only clinical work and inspire change at both institutional and societal levels.
References
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