Revenge pornography: the influence of perpetrator-victim sex, observer sex and observer sexting experience on perceptions of seriousness and responsibility

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Abstract

Drawing on gender-role stereotypes and defensive attribution theory, this study investigates the influence of perpetrator-victim sex, observer sex and observer sexting experience on perceptions of seriousness and responsibility in the context of revenge pornography. Two-hundred and thirty-nine university students read one of two versions of a hypothetical scenario, responded to items concerning their perceptions of the situation described, and responded to items concerning their sexting experience. Men were more likely to believe the situation was serious when it involved a male perpetrator and a female victim rather than vice versa. However, perpetrator-victim sex did not influence women’s perceptions. Participants without sexting experience were more likely than participants with sexting experience to believe the situation was serious, and to hold the victim responsible.

Keywords: Revenge pornography, sexting, intimate images, intimate violence, technologically-facilitated sexual violence, perceptions
Introduction

Revenge pornography, popularly referred to as ‘revenge porn’, has been defined as “the practice of disclosing nude or sexually explicit images and videos, often along with identifying personal information, of former romantic partners without their consent” (Bambauer, 2014, p. 2026). It has recently become an offence in England and Wales under the Criminal Justice and Courts Act 2015, and similar legislation has been passed in some states of the United States and Australia. There have also been calls for changes to national privacy laws in Europe and the Middle East. Whilst there is a growing body of literature regarding revenge pornography from a legal perspective (e.g., Levendowski, 2014; Patton, 2015; Walker, 2012), and ample media coverage of high profile cases, there is little or no research on perceptions of revenge pornography situations. The current study therefore investigates the influence of perpetrator-victim sex (the sex of the perpetrator and the victim), observer sex and observer sexting experience on perceptions of seriousness and responsibility in the context of revenge pornography. Although ‘revenge pornography’ has been used throughout this article in order to be consistent with existing literature, it has been argued that ‘image-based sexual abuse’ offers a more accurate and inclusive terminology for the creation and non-consensual publication of intimate images (see McGlynn & Rackley, 2016; Powell & Henry, 2017).

With the take-up of new media technologies transforming how intimate violence manifests, revenge pornography can be understood as a form of technologically-facilitated intimate violence (Henry & Powell, 2015; Parliament of Victoria, 2013). For example, intimate images of current or former partners are increasingly used to threaten, harass or control victims in cases of domestic and family violence, and stalking (Henry & Powell, 2015). In extreme cases, revenge pornography can result from perpetrators hacking into victims’ computers or online accounts. Such cases, though widely publicised, are rare. More
commonly, revenge pornography results from the perpetrator taking intimate images of the victim or the perpetrator receiving intimate images of the victim via mobile and internet technologies (sexting; Delevi & Weisskirch, 2013). Sexting has become integrated into adolescent courtship rituals and is most frequent in committed relationships (Delevi & Weisskirch, 2013; Drouin, Vogel, Surbey, & Stills, 2013; Lippman & Campbell, 2014; Weisskirch & Delevi, 2011). Defined narrowly as images depicting genitals, buttocks and/or breasts, surveys of US students report prevalence rates of 20% to 31% for ever sending and 40% to 57% for ever receiving sexted images during high school (Martinez-Prather & Vandiver, 2014; Strassberg, McKinnon, Sustaíta, & Rullo, 2013). A recent study by Pina, Holland, and James (2017) examined revenge pornography proclivity and found that 29% of adults in their sample presented some inclination towards this behaviour, and that 99% reported some approval for this behaviour. Therefore, although people are unlikely to perpetrate revenge pornography, they are likely to accept it to some degree.

Studies generally report few sex differences in the prevalence of sending or receiving intimate images, however, the perceived and actual risks are different for men and women (Hinduja & Patchin, 2010; Hudson, Fetro, & Ogletree, 2014; Klettke, Hallford, & Mellor, 2014). Studies in the United Kingdom, the United States and Australia indicate that sending intimate images has a positive impact on men’s perceived masculinity and status, and a negative impact on women’s sexual standing and reputation (Lippman & Campbell, 2014; Ringrose, Harvey, Gill, & Livingstone, 2013; Walker, Sanci, & Temple-Smith, 2013). There is also a common view that women who send such images are responsible for any negative consequences (Ringrose et al., 2013; Walker et al., 2013). For example, many e-safety and anti-sexting campaigns focus on the girls and young women who create and send intimate images rather than the boys and young men who are more likely to forward or distribute them (Fleschler Peskin, Markham, Addy, Shegog, Thiel, & Tortolero, 2013; Karaian, 2014). Such
campaigns are based on a ‘risk management’ model of sexual violence, whereby women are defined as inherently at risk while being held responsible for managing this risk (Albury & Crawford, 2012).

As the use of intimate images in relationships continues to rise, and laws are being enacted to combat revenge pornography, it is important to understand people’s attitudes and the extra-legal factors that shape them. Research has shown that perpetrator-victim sex and observer sex influence perceptions of other forms of intimate violence. For example, research concerning domestic violence, rape and stalking has demonstrated that situations are perceived to be more serious, in terms of the need for intervention and the impact of the situation on the victim, when they involve a male perpetrator and a female victim rather than a female perpetrator and a male victim (e.g., Corbally, 2015; Runtz & O’Donnell, 2003; Scott, Rajakaruna, Sheridan, & Gavin, 2015; Vandiver & Dupalo, 2012). Conversely, male victims of female perpetrators are more likely to be perceived negatively and to be held responsible for the situation, and are less likely to be taken seriously (Seelau & Seelau, 2005; Sheridan, Gillett, Davies, Blaauw, & Patel, 2003; Gavin & Scott, 2016). With regard to observer sex, women are more likely than men to perceive domestic violence, rape and stalking situations to be serious (e.g., Finnegan & Timmons Fritz, 2012; Pierce & Harris, 1993; Scott et al., 2015; Seelau, Seelau, & Poorman, 2003). Women are also more sympathetic towards the victim, while men are more likely to hold the victim responsible (e.g., Grubb & Turner, 2012; Home, 1994; Whatley, 2005; Yamawaki, Ochoa-Shipp, Pulsipher, Harlos, & Swindler, 2012). Research adopting a mock juror paradigm in relation to a stalking situation found that women are more likely than men to render guilty verdicts, to view the victim positively and to view the perpetrator negatively (Dunlap, Hodell, Golding, & Wasarhaley, 2012).
The influence of perpetrator-victim sex and observer sex on perceptions of other forms of intimate violence have been explained with reference to gender-role stereotypes and defensive attribution theory. Gender-role stereotypes position women as weak and vulnerable, and men as dominant and threatening (Gerber, 1991). Thus, the findings for perpetrator-target sex can be understood in light of the incompatibility between being a man and being a victim (Burcar, 2013; Seelau et al., 2003). In domestic violence situations, perceptions are influenced by gendered stereotypes around power, whereas in rape and stalking situations, perceptions are influenced by social roles in intimate relationships (Corbally, 2015; Sheridan et al., 2003). According to defensive attribution theory, attributions of responsibility and judgments of situations more broadly depend on the observer’s perceived similarity to the victim and the observer’s perceived likelihood of experiencing a similar situation (Grubb & Harrower, 2008; Shaver, 1970). In the context of other forms of intimate violence, it is argued that women are more likely to identify with the prototypical role of the victim than men because they are more likely to experience this type of victimisation (Dunlap et al., 2012; Herzog, 2008; Sinclair, 2012; Scott et al., 2015). Therefore, the findings for observer sex can be understood in light of women’s self-protective defensive attributions in which the situation is perceived to be more serious and victims are held less responsible (Herzog, 2008; van der Bruggen & Grubb, 2014).

There is a dearth of research examining the influence of observer sexting experience on perceptions of revenge pornography situations. However, it could be argued that people with sexting experience (sexters) are more likely to identify with the role of the victim than people without sexting experience (non-sexters) because their ‘risky behaviour’ increases their potential exposure to this type of victimisation. From this perspective, sexters’ self-defensive attributions would lead them to perceive revenge pornography situations to be more serious and victims of revenge pornography to be less responsible. The findings of research
using hypothetical scenarios to examine the influence of risky behaviour on attributions of responsibility in a medical context (HIV/AIDS and smoking-induced cancer sufferers) are consistent with this proposition.\(^1\) Individuals who engaged in unprotected sex or smoked (risk takers) were less likely to hold the sufferer responsible than individuals who did not engage in unprotected sex or smoke (non-risk takers; Finchilescu, 2002). However, sexting experience has been shown to influence perceptions of the potential consequences of this risky behaviour.Whilst most people acknowledge that sexting is a risky behaviour, sexters are more likely than non-sexters to believe the potential consequences are manageable, underestimate the likelihood of unauthorised sharing (particularly in romantic contexts), and frame sexting as a normal and beneficial part of relationships (Hudson et al., 2014; Renfrow & Rollo, 2014).

The current study is novel and extends existing intimate violence literature by investigating the influence of perpetrator-victim sex, observer sex and observer sexting experience on perceptions of seriousness and responsibility in the context of revenge pornography. In light of research and gender-role stereotypes, it is hypothesised that the situation will be perceived to be more serious and the victim will be held less responsible when it involves a male perpetrator and a female victim than vice versa. In light of research and defensive attribution theory, it is hypothesised that women and sexters will perceive the situation to be more serious and be less likely to hold the victim responsible than men and non-sexters. However, the hypothesis relating to observer sexting experience and perceptions of seriousness is tentative because research has shown that sexters are more likely than non-sexters to believe the potential consequences of this risky behaviour are manageable (Hudson et al., 2014; Renfrow & Rollo, 2014).

\(^1\) Although sexting is very different in nature to unprotected sex and smoking, comparisons are made in the absence of more relevant research on the basis that all involve engagement in risky behaviour and all have potentially negative consequences (revenge pornography, HIV/AIDS and smoking-induced cancer).
Method

Design and Participants

The study used a quasi-experimental $2 \times 2 \times 2$ between-participants design. The three independent variables were perpetrator-victim sex (male perpetrator-female victim, female perpetrator-male victim), observer sex (male, female), and observer sexting experience (sexter, non-sexter). The two dependent variables were perceptions of seriousness and perceptions of responsibility. The initial sample comprised 252 students from a university in the United Kingdom. Eight students were excluded because they preferred not to say whether they had sexting experience, and five students were excluded because they provided inconsistent responses: not taking intimate images of themselves, but sending intimate images of themselves to romantic and/or prospective partners.²

The final sample comprised 239 students (120 men, 119 women) with an average age of 20.13 years ($SD = 1.64$). The sample was representative of the student body, with all 26 schools across the four faculties of the university represented. Participant numbers ranged from 57 to 62 across the four perpetrator-victim sex × observer sex conditions and from 16 to 41 across all eight conditions (including observer sexting experience). The research received approval from the university ethics committee and was conducted in accordance with the ethical requirements of the British Psychological Society.

Materials and Procedure

Participants completed a questionnaire containing one of two versions of a hypothetical scenario (representing the different levels of perpetrator-victim sex), five items concerning their perceptions of the situation described (seriousness and responsibility)³, five

² Six women and two men preferred not to say whether they had sexting experience, and two women and three men provided inconsistent responses.
³ Principal component analysis with varimax rotation was performed to examine the underlying structure of the five items. Two components were identified and used as dependent variables in subsequent statistical analyses.
items concerning their sexting experience, and three questions concerning their demographic information (sex, age and university course). Participants were not asked about their sexual orientation. The hypothetical scenario described a situation in which the perpetrator took intimate images of the victim in the context of a one-year relationship, and the perpetrator was a man and the victim was a woman or vice versa. An example scenario is provided below:

Having dated for about a year, Emma (19) and Ben (20) went back to her flat after drinks with friends at the local pub. They were chatting about what turns them on when Ben asked Emma if she had ever taken naked photos of herself. Emma said no, but that it might be fun with someone she trusts. That night they used Ben’s phone to take naked photos of each other. Afterwards, Emma thought little more about it and two months later she and Ben broke up. One evening almost a year later, Emma received an email from a male friend saying “Is this you?” together with a link to a website. She clicked on the link which opened a page containing several of the naked photos of her taken on Ben’s phone, along with her name and a screenshot of her Facebook profile. The following morning Emma contacted the police.

In the female perpetrator-male victim condition, Emma was portrayed as the perpetrator and Ben was portrayed as the victim.

Observer sexting experience. The five sexting experience items used a narrow definition of intimate images (‘images of yourself or others that include naked breasts, genitals and/or bottoms’, Mitchell, Finklehor, Jones, & Wolak, 2012) and used ‘yes’, ‘no’, and ‘prefer not to say’ responses. The items related to the taking of intimate images of

Component 1, labeled ‘seriousness’, had four item loadings and accounted for 52% of variance. Component 2, labeled ‘responsibility’, had one item loading and accounted for 21% of variance.
themselves, as well as the sending of intimate images to, and receiving intimate images from, romantic and prospective partners. Items concerning the sending of intimate images to romantic and prospective partners were used to distinguish between sexters (who responded yes to at least one item) and non-sexters (who responded no to both items).

**Seriousness.** The four seriousness items were taken from previous research on perceptions of other forms of intimate violence (e.g., Duff & Scott, 2013; Scott et al., 2015; Sheridan et al., 2003) and used 11-point Likert scales, numbered from 0 to 10 (Cronbach’s $\alpha = .81$). The items related to the extent to which the perpetrator’s behaviour constituted a crime, necessitated police intervention, necessitated a criminal conviction and would cause the victim alarm or personal distress. For all items, higher numbers represented higher levels of agreement.

**Responsibility.** The responsibility item was again taken from previous research on perceptions of other forms of intimate violence (e.g., Duff & Scott, 2013; Scott et al., 2015; Sheridan et al., 2003) and used the same 11-point Likert scale, numbered from 0 to 10. The item related to the extent to which the victim was held responsible for the situation. Again, higher numbers represented higher levels of agreement.

Participants were recruited from a range of communal areas around the university (e.g., library, restaurants, study areas and transportation hubs) at different times of the day in order to include as wide a range of participants as possible. The study took approximately 10 minutes to complete, participation was voluntary and debrief statements were provided upon completion.
Results

Figure 1 shows that 41% of participants reported taking intimate images of themselves and sending them to romantic partners, and a further 17% reported taking intimate images of themselves and sending them to prospective partners. Compared to women, a greater proportion of men reported sending intimate images to prospective partners (23% vs. 11%), $\chi^2(1, N = 239) = 5.75, p = .017, \varphi = -.155$; receiving intimate images from romantic partners (58% vs. 35%), $\chi^2(1, N = 239) = 11.85, p = .001, \varphi = -.223$, and receiving intimate images from prospective partners (33% vs. 21%), $\chi^2(1, N = 239) = 4.02, p = .045, \varphi = -.130$.

---Insert Figure 1 about here---

With regard to perceptions of seriousness and responsibility, a $2 \times 2 \times 2$ multivariate analysis of variance was performed to examine the influence of perpetrator-victim sex, observer sex and observer sexting experience. Parametric analyses were performed despite several normal distribution and homogeneity of variance violations so that potential interactions between the three independent variables could be explored. Additional non-parametric tests were performed to safeguard against Type I errors and the pattern of significance was consistent.

The analysis revealed significant main effects for perpetrator-victim sex, $F(2, 230) = 4.94, p = .008, \eta^2 = .04$, observer sex, $F(2, 230) = 3.08, p = .048, \eta^2 = .03$, and observer sexting experience, $F(2, 230) = 12.82, p < .001, \eta^2 = .10$. There was also a significant interaction effect for perpetrator-victim sex × observer sex, $F(2, 230) = 3.31, p = .038, \eta^2 = .03$. The $F$ ratios, significance values and descriptives are displayed in Tables 1 and 2.

---Insert Tables 1 and 2 about here---

Analyses of variance, using Bonferroni corrected alpha values of .025, revealed that the situation was perceived to be more serious when it involved a male perpetrator and a female victim, $F(1, 231) = 8.52, p = .004, \eta^2 = .04$. Women were also more likely to perceive the
situation to be serious than men, $F(1, 231) = 6.19, \ p = .014, \ \eta^2 = .03$, and non-sexters were more likely to perceive the situation to be serious and to hold the victim responsible than sexters, $F(1, 231) = 14.77, \ p < .001, \ \eta^2 = .06$ and $F(1, 231) = 8.88, \ p = .003, \ \eta^2 = .04$ respectively. Additional Mann Whitney U tests were performed to explore the significant interaction effect between perpetrator-victim sex and observer sex on perceptions of the seriousness of the situation. When separate analyses were performed for the different levels of observer sex, these tests revealed that men were more likely to perceive the situation to be serious when it involved a male perpetrator and a female victim rather than vice versa ($M = 7.46, \ SD = 1.67$ vs. $M = 6.03, \ SD = 1.95$), $U = -4.05, \ p < .001, \ r = -.37$. However, perpetrator-victim sex did not influence women’s perceptions regarding the seriousness of the situation ($M = 7.52, \ SD = 1.82$ vs. $M = 7.21, \ SD = 1.57$), $U = -1.32, \ p = .186, \ r = -.12$. When separate analyses were performed for the different levels of perpetrator-victim sex, these tests revealed that women were more likely to perceive the situation to be serious than men when it involved a female perpetrator and a male victim ($M = 7.21, \ SD = 1.57$ vs. $M = 6.03, \ SD = 1.95$), $U = -3.46, \ p = .001, \ r = -.31$. However, observer sex did not influence perceptions regarding the seriousness of the situation when it involved a male perpetrator and a female victim ($M = 7.52, \ SD = 1.82$ vs. $M = 7.46, \ SD = 1.67$), $U = -0.46, \ p = .648, \ r = -.04$.

**Discussion**

The current study investigated the influence of perpetrator-victim sex, observer sex and observer sexting experience on perceptions of seriousness and responsibility in the context of revenge pornography. The finding that approximately 40% of participants reported taking and sending intimate images of themselves to romantic and/or prospective partners is consistent with highschool prevalence rates (e.g., Martinez-Prather & Vandiver, 2014; Strassberg et al., 2013) and the suggestion that sexting has become integrated into adolescent
courtship rituals (Delevi & Weisskirch, 2013; Drouin et al., 2013; Lippman & Campbell, 2014; Weisskirch & Delevi, 2011). It is interesting to note that the reported rates of sending intimate images were lower than the reported rates of receiving them, and that a greater proportion of men reported sending and receiving intimate images than women. Speculation regarding these discrepancies is beyond the remit of the current study, but warrant further investigation.

With regard to the influence of perpetrator-victim sex, observer sex and observer sexting experience on perceptions of seriousness and responsibility, the following findings were consistent with the hypotheses: the situation was perceived to be more serious when it involved a male perpetrator and a female victim; women were more likely to perceive the situation to be serious than men; and sexters were less likely to hold the victim responsible than non-sexters. Importantly, the apparent observer sex difference for perceptions regarding seriousness was a consequence of men, but not women, being influenced by perpetrator-victim sex. That is, only men were less likely to perceive the situation to be serious when it involved a female perpetrator and a male victim. Contrary to the hypotheses, perpetrator-victim sex and observer sex did not influence perceptions of responsibility, and although observer sexting experience influenced perceptions of seriousness its influence was in the opposite direction to that hypothesised: non-sexters perceived the situation to be more serious than sexters.

A possible explanation for the finding that women were only more likely to perceive the situation to be serious when it involved a female perpetrator and a male victim is that men were more susceptible to gender-role stereotypes. Thus, women identified with the prototypical role of the victim as hypothesised, but the overall influence of observer sex on perceptions was counteracted by men perceiving the situation to be more serious when it involved a male perpetrator and a female victim. Further investigation is warranted therefore
to understand the nature of this relationship, and whether gender-role stereotypes and defensive attributions are indeed influenced by perpetrator-victim sex and observer sex. Further research is also necessary to extend this study by investigating the influence of personality characteristics on perceptions of revenge pornography. Pina et al. (2017) recently found that higher levels of ambivalent sexism, machiavellianism, narcissism and psychopathy were related to a greater propensity to perpetrate revenge pornography. It would be interesting therefore to see how these, and other personality characteristics, influence perceptions of this behaviour.

A possible explanation for observer sexting experience influencing perceptions of seriousness in the opposite direction to that hypothesised is that the applicability of defensive attribution theory differed according to whether the observer engaged in risky behaviour. For example, research has shown that people who engage in risky behaviour (e.g., sext or engage in unprotected sex) rationalise and underplay the consequences of their behaviour, thereby circumventing the need for self-protective attributions (Finchilescu, 2002; Seelau et al., 2003). However, it is also possible that the perceived seriousness of revenge pornography (and HIV/AIDS) deter some people from sexting (or engaging in unprotected sex) in the first instance. Further research is necessary to explore the direction of this relationship, and whether perceptions of revenge pornography as a serious crime deter people from taking and sending intimate images.

The finding that sexters were less likely to hold the victim responsible than non-sexters is consistent with defensive attribution theory, and may reflect the unique set of circumstances leading to revenge pornography (i.e., victims are complicit in the taking of intimate images). However, findings regarding the lack of influence of perpetrator-victim sex and observer sex on perceptions of responsibility were contrary to gender-role stereotypes and defensive attribution theory. These findings may reflect the overall high levels of
responsibility attributed to the victim in the current study compared to research investigating perceptions in the context of other forms of intimate violence (e.g., Duff & Scott, 2013; Grubb & Turner, 2012; Sheridan et al., 2003).

The high levels of responsibility attributed to the victim is reflected implicitly in the messages of many e-safety and anti-sexting campaigns that problematise the actions of the victim rather than the actions of the perpetrator (Powell & Henry, 2014; Ringrose et al., 2013; Sheridan et al., 2003; Skogan, 1984). Given the increasing prevalence of sexting and the growing role of mobile technologies in expressions of intimacy between young people (Fleschler Peskin et al., 2013), the focus of these campaigns needs to shift from the consensual creation of images to the non-consensual distribution of images (Henry & Powell, 2015; Powell & Henry, 2014). Thus, decreasing the acceptability of revenge pornography while increasing knowledge of self-protective behaviours (Pina et al., 2017). That non-sexters held victims more responsible than sexters also warrants further investigation, as the findings may have implications for victim support and judicial responses to revenge pornography situations. The prevalence of sexting in adulthood decreases with age (Lenhart & Duggan, 2014), so the adults occupying supportive roles are less likely to have sexting experience and are more likely to believe victims are responsible to some degree. As Powell and Henry (2014) stated, education needs to focus on making young men and women ‘critical consumers of images’ so that they become aware of the ethical issues associated with revenge pornography, and question the appropriateness of sending images to peers.

With regard to limitations, perceptions were examined in response to a specific heteronormative revenge pornography situation that involved a man/woman taking intimate images of a woman/man in the context of a one-year relationship. The study was also limited to the use of students from a single university in the United Kingdom, and by not considering the role of observer sexual orientation. It is unlikely therefore that the reported sexting rates
and perceptions are reflective of non-heterosexual individuals, or representative of the general population. Further research is necessary to determine whether the findings regarding perceptions of seriousness and responsibility are influenced by observer sexual orientation, and extend to non-heterosexual situations and other types of revenge pornography (e.g., situations resulting from perpetrators hacking into victims’ computers or online accounts, or perpetrators receiving intimate images of victims via mobile and internet technologies). The replication and extension of this study with other samples would help clarify the robustness of the findings and produce more representative sexting rates.

In conclusion, the findings indicate that perceptions of revenge pornography are influenced by similar extra-legal factors as other forms of intimate violence. It would be useful therefore to draw on this literature to further explore such influences. Furthermore, the finding that people who put themselves at risk (sexters) are less likely to perceive a revenge pornography situation to be serious, highlights the importance of continuing research as revenge pornography becomes an area of growing academic and legal importance.
References


Martinez-Prather, K., & Vandiver, D. M. (2014). Sexting among teenagers in the United States: A retrospective analysis of identifying motivating factors, potential targets, and


Sheridan, L., Gillett, R., Davies, G. M., Blaauw, E., & Patel, D. (2003). ‘There’s no smoke without fire’: Are male ex-partners perceived as more ‘entitled’ to stalk than stranger or
acquaintance stalkers? *British Journal of Psychology, 1*, 87-98. doi: 10.1348/000712603762842129


Figure 1. Percentage of participants who reported taking, sending and receiving intimate images.
Table 1

*Multivariate and univariate analyses of variance F ratios for perceptions of seriousness and responsibility by perpetrator-victim sex, observer sex and observer sexting experience*

<table>
<thead>
<tr>
<th>Variable</th>
<th>MANOVA $F(2, 230)$</th>
<th>Seriousness $F(1, 231)$</th>
<th>Responsibility $F(1, 231)$</th>
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</thead>
<tbody>
<tr>
<td>Perpetrator-victim sex (P-VS)</td>
<td>4.94***</td>
<td>8.52***</td>
<td>2.03</td>
</tr>
<tr>
<td>Observer sex (OS)</td>
<td>3.08*</td>
<td>6.19*</td>
<td>.08</td>
</tr>
<tr>
<td>Observer sexting experience (OSE)</td>
<td>12.82***</td>
<td>14.77***</td>
<td>8.88**</td>
</tr>
<tr>
<td>P-VS × OS</td>
<td>3.31*</td>
<td>6.29*</td>
<td>.15</td>
</tr>
<tr>
<td>P-VS × OSE</td>
<td>.41</td>
<td>.81</td>
<td>.01</td>
</tr>
<tr>
<td>OS × OSE</td>
<td>1.75</td>
<td>2.63</td>
<td>.65</td>
</tr>
<tr>
<td>P-VS × OS × OSE</td>
<td>.87</td>
<td>1.39</td>
<td>.25</td>
</tr>
</tbody>
</table>

*Note.* $F$ ratios are Wilks’ Lambda approximations of $F$s. MANOVA = multivariate analysis of variance; ANOVA = univariate analysis of variance. Bonferroni corrected alpha value = .025.

*p < .05 (MANOVA). *$p < .025 (ANOVA). **p < .01. ***p < .001.
Table 2

_Descriptives for perceptions of seriousness and responsibility by perpetrator-victim sex, observer sex and observer sexting experience_

<table>
<thead>
<tr>
<th>Condition</th>
<th>Seriousness</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
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<tr>
<td><strong>Perpetrator-victim sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male-female</td>
<td>7.49</td>
<td>1.74</td>
</tr>
<tr>
<td>Female-male</td>
<td>6.63</td>
<td>1.86</td>
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<tr>
<td><strong>Observer sex</strong></td>
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<td></td>
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<tr>
<td>Male</td>
<td>6.74</td>
<td>1.95</td>
</tr>
<tr>
<td>Female</td>
<td>7.36</td>
<td>1.69</td>
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<tr>
<td><strong>Observer sexting experience</strong></td>
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<td></td>
</tr>
<tr>
<td>Yes</td>
<td>6.43</td>
<td>1.96</td>
</tr>
<tr>
<td>No</td>
<td>7.47</td>
<td>1.65</td>
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