



Sexting: A new, digital vehicle for intimate partner aggression?



Michelle Drouin*, Jody Ross, Elizabeth Tobin

Indiana University – Purdue University Fort Wayne, United States

ARTICLE INFO

Article history:

Available online 20 April 2015

Keywords:

Sexting
Sexting coercion
Intimate partner violence
Mental health
Trauma
Young adults

ABSTRACT

In this study, we examined the relationships between sexting coercion, physical sex coercion, intimate partner violence, and mental health and trauma symptoms within a sample of 480 young adult undergraduates (160 men and 320 women). Approximately one fifth of the sample indicated that they had engaged in sexting when they did not want to. Those who had been coerced into sexting had usually been coerced by subtler tactics (e.g., repeated asking and being made to feel obligated) than more severe forms of coercion (e.g., physical threats). Nevertheless, the trauma related to these acts of coercion both at the time they occurred and now (looking back) were greater for sexting coercion than for physical sex coercion. Moreover, women noted significantly more trauma now (looking back) than at the time the events occurred for sexting coercion. Additionally, those who experienced more instances of sexting coercion also endorsed more symptoms of anxiety, depression, and generalized trauma. Finally, sexting coercion was related to both physical sex coercion and intimate partner violence, which suggests that sexting coercion may be a form of intimate partner violence, providing perpetrators with a new, digital route for physical and sexual covictimization.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

During the last decade, we have witnessed a great surge in the use of technology to form and maintain interpersonal relationships. Not surprisingly, considering its role in interpersonal communication, digital technologies have also played a role in sexual communication, and the term ‘sexting’ has emerged to describe this phenomenon. Sexting refers to the “sending of sexually explicit messages or images by cell phone” (Sexting, n.d.). As evidence of its official standing in the English vernacular, the term “sexting” was added to the Merriam-Webster dictionary in 2012. However, it is still a relatively new phenomenon; thus, we are just beginning to examine how often, why, and under which conditions people sext.

One of the trends emerging from research on the topic is that sexting is a risky behavior, in that pictures can remain part of one’s digital footprint indefinitely and are sometimes shown to others or forwarded (e.g., Associated Press, 2009; Drouin, Vogel, Surbey, & Stills, 2013). Moreover, it is associated with other types of risky behaviors, like problematic alcohol use (Dir, Cyders, & Coskunpinar, 2013), unprotected sex (Benotsch, Snipes, Martin, & Bull, 2013; Crimmins & Seigfried-Spellar, 2014), sex with multiple

partners (Benotsch et al., 2013; Dake, Price, Maziarz, & Ward, 2012), and chatting online with strangers (Crimmins & Seigfried-Spellar, 2014). Sexting has also been shown to be related to negative mental health symptoms, such as attempted suicide and feelings of sadness or hopelessness (Dake et al., 2012) and histrionic personality traits (Ferguson, 2011). Recent reviews on the topic (e.g., Drouin, 2015; Döring, 2014; Klettke, Hallford, & Mellor, 2014) have provided a comprehensive overview of the risk factors associated with sexting. However, one risk factor that has not yet been explored in the known literature is physical and sexual abuse by romantic partners and how it might contribute to or coexist with sexting in a relationship. This is a particularly pertinent topic of study considering that recent research showed that more than half of young adult college students have engaged in unwanted but consensual sexting—sexting when they did not want to (Drouin & Tobin, 2014). It is likely that at least some of these young adults had been coerced into this behavior by romantic partners. This forcing or coercion into sexting may be related to mental health or trauma symptoms, just like other types of sexual coercion are associated with these negative mental health outcomes (e.g., Mechanic, Weaver, & Resick, 2008; Varma, Chandra, Thomas, & Carey 2007). Thus, the goal of the present study was to examine the extent to which sexting coercion is taking place, whether it relates to physical sex coercion, and the extent to which both are related to mental health (i.e., depression and anxiety) and trauma symptoms.

* Corresponding author at: Indiana University – Purdue University Fort Wayne, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805, United States.

E-mail address: drouinm@ipfw.edu (M. Drouin).

1.1. Sexual coercion

Although the model of sexual wanting was once polarized into two distinct types of sexual activity—either wanted and consensual or unwanted and nonconsensual—we know now that sexual activity is more complex than this simple categorization (Muehlenhard & Peterson, 2005; Peterson & Muehlenhard, 2007). In fact, depending on the sample, approximately one third to one half of young adults reported engaging in *unwanted* but consensual sexual activity (e.g., Muehlenhard & Cook, 1988; O'Sullivan and Allgeier, 1998; Sprecher, Hatfield, Cortese, Potapova, & Levitskaya, 1994). Although unwanted sexual activity is not always a direct result of sexual coercion (for example, when a person has sexual intercourse with a partner out of a felt obligation when they are just not in the mood), unwanted sex is often linked, both anecdotally and in the literature, to sexually coercive tactics by a romantic partner (e.g., Santhya, Haberland, Ram, Sinha, & Mohanty, 2007).

When sexual coercion is considered broadly, the prevalence rates for both victimization and perpetration are quite high. For example, Struckman-Johnson, Struckman-Johnson, and Anderson (2003) found that approximately 78% of women and 58% of men in their college sample had been victims of sexual coercion, while 40% of men and 26% of women reported using the various sexual coercion tactics they measured. Struckman-Johnson et al. (2003) categorized coercion tactics into four levels, including sexual arousal, emotional manipulation and lies, intoxication, and physical force. In proposing these different categories of sexual coercion, the authors showed clearly that there are various types of “postrefusal sexual persistence” (p. 78) that would not be classified as sexual assault. This is an important distinction, as not all categories of sexual coercion would include the use of threats or physical force, and the use of physical threats or harm is actually quite infrequent when compared to other, subtler types of sexual coercion (Struckman-Johnson et al., 2003). When a less inclusive definition of sexual coercion is used, as in Agardh, Tumwine, Asamoah, and Cantor-Graae (2012), the prevalence rates are lower. Agardh et al. (2012) found that 31% of their Ugandan college sample had been victims of sexual coercion, which they measured by asking participants to indicate whether they had been “forced to” perform various sexual acts (e.g., have sexual intercourse). One notable trend emerging from these studies is that both men and women had been victims and perpetrators of sexual coercion. Thus, sexual coercion is an issue that affects both sexes. However, there are certainly public perceptions that men are not usually the victims of such tactics (e.g., Judson, Johnson, & Perez, 2013; Struckman-Johnson, 1988). This may be because fewer men than women have reported experiencing sexual coercion (e.g., Struckman-Johnson et al., 2003), and/or that studies of sexual coercion and unwanted sex often focus on women only (e.g., Mechanic et al., 2008; Santhya et al., 2007).

There also appears to be a link between experiencing sexual coercion and experiencing threats or acts of violence, among both women and men. In Santhya et al.'s (2007) sample, married Indian women who had experienced unwanted sex (i.e., sex when the woman had indicated that she did not want to), were also much more likely to have experienced physical harassment in the last year than married women who had not experienced unwanted sex. Meanwhile, the college students in Agardh et al.'s (2012) sample who had been threatened with or been victims of physical violence were also more likely to have experienced sexual coercion. Moreover, among both men and women, the experience of sexual coercion and sexual or physical threats was related to mental health symptoms, (i.e., anxiety, depression, and psychoticism) (Agardh et al., 2012). Mechanic et al. (2008) found similar results in their sample of battered women: There were significant correlations between all four facets of intimate partner abuse they

measured (i.e., sexual coercion, physical abuse, psychological abuse, and stalking), and each of these types of abuse was significantly related to negative mental health symptoms (i.e., post-traumatic stress disorder and depression). Considered together, these studies show that various forms of intimate partner violence are interrelated, that people may be experiencing multiple types of abuse and coercion simultaneously (e.g., physical and sexual covictimization), and that each of these types of abuse is independently related to negative mental health symptoms.

1.2. Present study

Recent research has shown that unwanted, consensual sexual activity has extended to the virtual world: More than half of the young adults in Drouin and Tobin's (2014) sample stated that they had engaged in unwanted but consensual sexting with relationship partners. However, Drouin and Tobin (2014) measured unwanted sexting in a very general way, asking participants only if they had engaged in sexting when they did not want to. As reliable measures exist that include more nuanced forms of sexual coercion, like Goetz and Shackelford's (2010) Sexual Coercion in Intimate Relationships Scale, this can be adapted to explore the topics of unwanted sexting and sexting coercion further. More specifically, we were interested in measuring the extent to which different types of sexting coercion occur among young adult women and men, how this relates to other forms of intimate partner abuse (i.e., physical sex coercion and intimate partner violence), and how all three types of abuse are related to mental health and trauma symptoms. Based on the extant literature, we expected that:

H1. Some young adults in intimate relationships would report that they had been victims of sexting coercion; (H1a) women would be more likely than men to report experiencing sexting coercion; and (H1b) subtler forms of sexting coercion (e.g., hints that the partner would leave) would be more commonly reported than threats or acts of violence.

Previous research has shown that both unwanted sexting (Drouin & Tobin, 2014) and sexual coercion (Struckman-Johnson et al., 2003) are commonly reported among young adult undergraduates in intimate relationships, and that both of these are more commonly reported among women than men. Because we expected sexting coercion to be related to both unwanted sexting and physical sex coercion, we predicted that at least some of the young adults in our sample, more women than men, would report having experienced some form of sexting coercion. Moreover, in accordance with Struckman-Johnson et al. (2003), who found that subtler forms of sexual coercion were more common than more severe acts of violence or threats of harm, we expected that threats and acts of violence would be infrequent as compared to subtler forms of sexting coercion.

Additionally, based on studies that show that sexual coercion is related to other forms of partner abuse (e.g., Agardh et al., 2012; Mechanic et al., 2008; Santhya et al., 2007), we expected:

H2. Significant positive relationships between sexting coercion, sexual coercion, and intimate partner violence.

Finally, we expected that:

H3. Sexting coercion would be significantly related to trauma symptoms, anxiety, and depression in both men and women.

As past studies have shown that sexual coercion and other types of intimate partner violence are related to negative mental health and trauma symptoms (Agardh et al., 2012; Mechanic et al., 2008),

and sexting has become a common component of sexual activity among relationship partners (e.g., Drouin & Landgraff, 2012; Drouin et al., 2013), we expected that the sexual coercion that takes place in the virtual world may be a correlate and/or extension of other types of partner abuse. We expected these significant relationships to exist for both men and women; however, we did not make any definitive a priori predictions about the relative strength of these relationships. Although Agardh et al. (2012) found that both men and women in their Ugandan sample reported experiencing similar amounts of sexual coercion and interpersonal violence, and that these related to negative mental health symptoms within both sexes, previous research in the U.S. has shown that unwanted sexting, sexual coercion, and intimate partner violence are more commonly reported among women than men. Consequently, we expected some sex differences with regard to prevalence of these behaviors, but as sexting coercion has not yet been explored empirically, we could not predict how it might relate differentially (by sex) to unwanted sexting, intimate partner violence, and trauma and mental health symptoms.

2. Method

2.1. Participants

Four hundred and eighty undergraduates (160 men and 320 women) from a mid-sized university in the midwestern United States participated in this online study. Most were college freshmen (58%) or sophomores (28%), in their first or second years of university. The participants' average age was 20.6 years ($SD = 4.73$) and the ethnic make-up of the sample was as follows: 83% Caucasian, 5% Hispanic, 4% African American, 4% Asian, and 4% who identified as biracial, Native American, or "other." At the time of data collection, 55% of participants reported being in a heterosexual romantic relationship. Participants who did not identify as heterosexual were excluded from the present analyses, which focus on coercion and aggression in opposite-sex relationships.

2.2. Procedure

After obtaining approval from an ethics board, participants were recruited for "Computer-Mediated Sexual Behaviors Study II" in Fall 2013 and Spring 2014 via the subject pool for elementary psychology courses. All participants completed online consent forms which indicated that no identifying information, including IP addresses, was being collected and that their responses were completely anonymous and would not be linked to their name. Participants were then given access to an online survey.

2.3. Measures

The survey included demographic questions (e.g., age, sex, race, and major) and questions about sexting behavior, sexual and sexting coercion, intimate partner violence, mental health symptoms, and perceived trauma from sexually coercive acts, as described below.

2.3.1. Sexting and unwanted sexting

Participants were asked whether they had ever sent a sexually-explicit text message and whether they had ever sent a sexually-explicit picture message. Those who indicated that they had sent a message of either type were then asked if they had ever sent a sexually-explicit text-only or picture message *when they did not want to* (i.e., unwanted but consensual sexting). For all four questions, participants responded on a binary scale (1 = yes, 0 = no).

Additionally, those who indicated that they had sent that type of message were asked how often they had sent that type of message to a romantic partner on a 6-point Likert scale (1 = *never* to 6 = *very frequently*).

2.3.2. Sexting coercion

To measure whether and under what circumstances the participants had been coerced into *sexting* by their current or most recent romantic partner, participants completed an adapted version of the 34-item Sexual Coercion in Intimate Relationships Scale (SCIRS; Goetz & Shackelford, 2010). The scale was adapted so that it included options for both males and females to report on their partner's sexting coercive acts; the original version asks males to report only their own sexually-coercive behaviors. Prior to answering these questions, the participants were instructed to write down the name of their current or most recent romantic partner and keep only that person in mind as they completed the survey. We asked participants to write down this name in case they had multiple former partners, so that all of a participant's responses would be made in reference to the same partner/relationship. We did not ask the participant to enter their partner's name into the online survey, thus, we did not have access to this information. They were then asked to indicate how frequently the listed act had occurred during the past 12 months, or, for previous relationships, during the last 12 months of the relationship. The SCIRS gives a total score as well as subscale scores for different types of coercive acts: resource manipulation/violence (e.g., "My partner withheld benefits that I depend on to get me to send him/her a sexually-explicit picture or video."), commitment manipulation ("My partner told me that if I loved him/her I would send him a sexually-explicit picture or video."), and defection threat ("My partner hinted that he/she might pursue a long-term relationship with another woman/man if I did not send him/her a sexually-explicit picture or video."). Cronbach's alpha for these scales in this sample were: resource manipulation/violence $\alpha = .95$, commitment manipulation $\alpha = .97$, defection threat $\alpha = .95$, full scale $\alpha = .98$.

2.3.3. Sexual coercion

To measure whether and under what circumstances participants had been coerced into *physical sex* by their current or most recent romantic partner, participants completed another adapted version of the 34-item SCIRS (Goetz & Shackelford, 2010). This time, the scale was adapted only to include options for both males and females to report on their partner's sexually coercive acts. Thus, this measure included the same instructions and response scales as for the adapted *sexting* SCIRS; however, the questions were about physical sex rather than sexting acts (e.g., "My partner withheld benefits that I depend on to get me to get me to have sex with him/her."). Cronbach's alpha for these scales were: resource manipulation/violence $\alpha = .94$, commitment manipulation $\alpha = .95$, defection threat $\alpha = .98$, full scale $\alpha = .97$.

2.3.4. Intimate partner violence

Participants completed a combined version of the 46-item Severity of Violence Against Women Scale (SVAWS; Marshall, 1992), that included answer choices for how often the participant had done the act (e.g., "How often did you push or shove your partner?"), and how often their romantic partner had done the act (e.g., "How often did your partner threaten to hurt you?"). Participants were asked to indicate the frequency with which each listed physical or threatening act had occurred in their relationship during the last 12 months, or, for past relationships, during the last 12 months of the relationship, using a 6-point Likert scale (0 = *never*, 5 = *a great many times*). So that they were focused only on their current or most recent romantic partner, once again, participants were asked to think about only the person whose name they had written

down. The SVAWS gives a total score as well as subscale scores for aggressive acts of differing severity: threats of violence (19 items), acts of violence (21 items), and sexual aggression (6 items). Responses are summed to create subscale scores, with higher scores reflecting more aggression. Because we were interested only in the frequency with which those physical or aggressive acts had been done to them by their partner (i.e., they were victims of such acts), we used only those scores in our analyses. The Cronbach's alpha for the full scale and each of the subscales was: threats of violence $\alpha = .95$, acts of violence $\alpha = .95$, sexual aggression $\alpha = .89$, full scale $\alpha = .97$.

2.3.5. Anxiety and depression

To measure anxiety and depression, participants completed an adapted version of the 25-item Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). The sole adaptation to this checklist was the removal of one item (referring to suicidal ideation) from the standard HSCL because of the online nature of the study and our inability to follow up with individuals who might have endorsed this item. Participants were asked to rate on a 4-point Likert scale (1 = *not at all* to 4 = *extremely*) how much discomfort each symptom (e.g., “*feeling fearful*” or “*feeling lonely*”) had caused him or her during the past two weeks, including today. For our analyses, we used both the total HSCL score (Cronbach's alpha = .95) as well as the depression (Cronbach's alpha = .93) and anxiety subscales (Cronbach's alpha = .88).

2.3.6. Trauma symptoms

We measured trauma with two separate scales. First, as a general measure of trauma symptoms and symptoms of posttraumatic stress, we used a revised version of the 40-item Trauma Symptom Checklist (TSC; Briere & Runtz, 1989). The TSC consists of six scales, which include anxiety, depression, dissociation, sexual abuse trauma index, sexual problems, and sleep disturbance scales. Items also can be summed to create a total trauma symptom score, which was utilized in the present study. Again, the sole adaptation to this measure was the removal of one item (referring to desire to physically hurt oneself) from the standard TSC because of the online nature of the study. Participants were asked to rate on a 4-point Likert scale (1 = *never* to 4 = *often*) how often in the last two months they had experienced a variety of trauma symptoms (e.g., “*uncontrollable crying*”). Cronbach's alpha for this scale = .94. Second, to measure the level of trauma the participants experienced as a direct result of the acts of sexting coercion and physical sex coercion that happened to them, we included a brief trauma measure from Testa, Vanzile-Tamsen, Livingston, and Kos (2004). Immediately following both the sexting coercion scale and the sexual coercion scale, participants were asked “*At the time that these experiences happened, how upsetting or traumatic were they for you?*” and “*As you look back at these experiences, how traumatic or upsetting are these experiences for you now?*” For each question, participants were asked to respond using a 6-point Likert scale (1 = *not at all traumatic*, 6 = *most traumatic thing possible*). Only those who had indicated at least one instance of sexting coercion ($n = 94$) or sexual coercion ($n = 101$) were included in the four measures of coercion-specific trauma: Sexting Coercion Trauma-Then, Sexting Coercion Trauma-Now, Sexual Coercion Trauma-Then, and Sexual Coercion Trauma-Now.

3. Results

Prior to our main analyses, we examined the prevalence of sending sexually-explicit messages (text and picture) as well as the prevalence of unwanted but consensual sexting. As shown in

Table 1
Prevalence of sexting-related behaviors, coercion, and partner aggression victimization.

Variable	Full sample n (%)	Men n (%)	Women n (%)	χ^2
Ever sexted	342 (71%)	118 (75%)	224 (70%)	.73
Sent a sexually-explicit picture message	226 (47%)	66 (41%)	160 (50%)	3.27
Sent a sexually-explicit text-only message	328 (68%)	118 (74%)	210 (67%)	3.25
Ever sexted when s/he did not really want to	89 (19%)	19 (12%)	70 (22%)	7.06**
Experienced sexting coercion ^a	94 (20%)	27 (17%)	67 (21%)	1.18
Experienced physical sex coercion ^a	101 (21%)	21 (13%)	80 (25%)	9.05**
Experienced sexual aggression ^b	94 (20%)	30 (19%)	64 (20%)	.11
Experienced physical aggression ^b	231 (48%)	74 (46%)	157 (49%)	.34
Experienced threats of aggression ^b	310 (65%)	99 (62%)	211 (66%)	.77

^a Measured with adapted forms of the Sexual Coercion in Intimate Relationships Scale (SCIRS).

^b Measured with the Severity of Violence Against Women Scale (SVAWS).

** $p < .01$.

Table 1, the majority of participants reported that they had sent some type of sexually-explicit message: Nearly half of the sample reported sending a sexually-explicit picture, and even more had sent a sexually-explicit, text-only message. When asked about unwanted but consensual sexting in particular, roughly one in five participants reported having sexted when they did not really want to. With regard to sex differences, although similar numbers of men and women reported engaging in sexting, unwanted but consensual sexting was more common among women than men.

3.1. Prevalence of sexting coercion

Our first hypothesis (H1) was that some young adults in our sample would indicate that they had experienced sexting coercion from a romantic partner. As Table 1 shows, 20% of the sample reported that their partner had tried to coerce them into sending this type of message. It is important to note here that a person could experience sexting coercive tactics, but that does not mean that they actually complied. We also predicted (H1a) that women would be more likely to have experienced this type of coercion than men. However, there were no significant differences in the proportion of men and women who reported that they had experienced sexting coercion from a partner (see Table 1). That said, although the proportion of men and women reporting the acts were similar, this does not necessarily mean that they experienced sexting coercion at the same frequency or magnitude. Therefore, to explore this question further, we also examined men's and women's mean scores on the adapted SCIRS (used to assess sexting coercion). As Table 2 shows, the average frequency or magnitude of sexting coercion also did not differ between men and women.

Although there were no differences between men and women in their reported experiences of sexting coercion, as women were more likely to report engaging in unwanted but consensual sexting, we also examined the relations between sexting coercion and engagement in unwanted but consensual sexting, by gender. A greater proportion of women who experienced sexting coercion engaged in unwanted but consensual sexting. Among the 67 women who were coerced, 34 (51%) sent an unwanted but consensual sext message; whereas, among the 27 men who were coerced, only seven (26%) of them reported sending an unwanted but consensual sext message. As these data suggest, the correlation between coercion to sext and unwanted but consensual sexting was stronger for women ($r = .29, p < .05$) than for men ($r = .17, ns$).

Table 2
Sexting coercion, sexual coercion, intimate partner violence, and mental health symptoms.

Variable	Full sample ^a M (SD)	Men M (SD)	Women M (SD)	t
Sexting coercion – total	15.02 (23.85)	12.48 (28.11)	16.04 (22.06)	.65
Sexting coercion – resources	4.65 (9.83)	6.3 (13.23)	3.99 (8.10)	1.03
Sexting coercion – commit manip.	7.39 (10.54)	3.41 (8.26)	9.00 (10.98)	2.38*
Sexting coercion – defect threat	2.98 (6.55)	2.78 (6.96)	3.06 (6.43)	.19
Sexual coercion – total	14.7 (22.03)	15.62 (30.32)	14.46 (19.50)	.21
Sexual coercion – resources	4.13 (8.39)	7.10 (14.33)	3.34 (5.80)	1.86
Sexual coercion – commit manip.	7.86 (9.65)	5.48 (8.85)	8.50 (9.81)	1.28
Sexual coercion – defect threat	2.71 (6.43)	3.05 (7.34)	2.62 (6.22)	.27
SVAWS – total score	13.10 (26.96)	13.89 (35.74)	12.69 (21.13)	.46
SVAWS – sexual aggression	1.01 (3.41)	1.1 (4.53)	0.97 (2.67)	.39
SVAWS – phys. aggress. (acts)	5.17 (12.25)	6.16 (16.43)	4.67 (9.42)	1.26
SVAWS – intimidation/threats	7.00 (13.62)	6.64 (15.81)	7.19 (12.37)	.42
HSCL – total	37.24 (13.25)	34.59 (12.52)	38.6 (13.43)	3.15**
HSCL – depression	22.77 (9.16)	21.12 (8.51)	23.62 (9.38)	2.84**
HSCL – anxiety	14.47 (4.94)	13.47 (4.79)	14.98 (4.94)	3.19**
TSC	23.85 (18.84)	20.44 (18.48)	25.6 (18.81)	2.85**

Note. SVAWS = Severity of Violence Against Women Scale. HSCL = Hopkins Symptom Checklist. TSC = Trauma Symptom Checklist.

^a Means for sexual and sexting coercion are based only on data from participants who reported these experiences.

* $p < .05$.

** $p < .01$.

Meanwhile, with regard to our hypothesis that people would report experiencing more subtle types of sexting coercion than severe acts or threats of violence (H1b), we found that the most commonly experienced forms of sexting coercion in this sample were “partner made me feel obligated” (reported by 10% of participants) and “partner persisted in asking... even though s/he knew that I did not want to” (12%). Fewer participants reported that their partners had engaged in more severe forms of sexting coercion, such as physically forcing (2%) or threatening to physically force the participant to sext (2%), or threatening violence against the participant (1%) or someone/something that s/he cared about (1%). In terms of SCIRS subscale scores, the type of coercion most often reported was commitment manipulation (see Table 2). However, women were significantly more likely than men to report that their partners had engaged in this coercive tactic [$t_{(1,92)} = 2.38, p < .05, d = .58$]. For men, the tactic they most reported their partners using was threats to withhold resources.

For comparison, we also examined the prevalence of coercive tactics used in attempt to engage participants in physical sex. As compared to sexting coercion, relatively more women, but relatively fewer men, experienced physical sex coercion (see Table 1). Also, while rates of sexting coercion victimization were similar for men and women, rates of physical sex coercion victimization were significantly higher for women. As with sexting coercion, making one feel obligated to have intercourse (8%) and persistent asking (12%) were the most common forms of physical sex coercion experienced, while threats or use of force were less common, each being endorsed by less than 2% of the sample. In terms of coercion subscale scores, once again, the type of coercion most often reported by the sample as a whole was commitment manipulation. For physical sex coercion, means were not significantly different for men and women on any of the subscales or for the full scale score (see Table 2).

3.2. Relationships between coercion, partner violence, mental health, and trauma (H2 and H3)

Our H2 predicted that there would be significant relationships between sexting coercion, sexual coercion, and intimate partner violence. As shown in Table 3, correlations between sexting coercion, sexual coercion, and the measured forms of intimate partner abuse were all significant ($p < .001$) for men and women.

Additionally, in line with H3, the more sexting coercion, physical sex coercion, or intimate partner violence participants experienced, the more general anxiety symptoms, depression, and traumatic stress they reported. Interestingly, for men, the relations between sexting coercion and negative mental health symptoms were stronger than the relations between the experience of partner aggression (physical acts, threats, or sexual aggression) and negative mental health symptoms. For women, the relations between negative mental health symptoms and sexting coercion were generally as strong as, and often stronger than, relations between these symptoms (i.e., symptoms of anxiety, depression, and trauma) and the more traditional forms of partner aggression (see Table 3). It is important to note that these strong positive relationships existed, even though the experience of coercion does not necessarily mean that the person actually was coerced into sex or sexting (i.e., that the sexual act took place).

To explore these relationships further, we used hierarchical regression to examine whether sexting coercion was related to mental health symptoms, controlling for participants’ acquiescence (i.e., sexting when they did not want to). A composite mental health symptom variable was created by summing participant scores on the measures of anxiety, depression, and traumatic stress. This variable was used as the outcome in a model where

Table 3
Correlations between sexting and sexual coercion, intimate partner violence, mental health symptoms, and trauma symptoms among men and women.

	1	2	3	4	5	6	7	8	9	10
1. Sexting coercion: total	–	.98	.64	.69	.57	.65	.45	.39	.48	.47
2. Sexual coercion: total	.66	–	.63	.69	.57	.64	.45	.39	.48	.48
3. SVAWS: total score	.38	.41	–	.92	.98	.98	.42	.37	.45	.38
4. SVAWS: sexual aggression	.37	.60	.62	–	.86	.89	.40	.34	.45	.30
5. SVAWS: intimidation/threats	.35	.32	.92	.47	–	.93	.41	.36	.42	.40
6. SVAWS: physical aggression	.28	.33	.87	.49	.63	–	.42	.36	.45	.36
7. HSCL: total	.24	.29	.22	.25	.21	.14	–	.97	.90	.75
8. HSCL: depression	.26	.30	.23	.24	.22	.15	.97	–	.75	.74
9. HSCL: anxiety	.17	.22	.16	.22	.15	.09	.88	.73	–	.65
10: TSC	.23	.31	.24	.26	.23	.16	.77	.76	.65	–

Note. Correlations for women are displayed below the diagonal. Correlations for men are displayed above the diagonal. Any value greater than .13 is significant at $p < .05$. Any value greater than .15 is significant at $p < .01$. Any value greater than .22 is significant at $p < .001$. SVAWS = Severity of Violence against Women Scale. TSC = Trauma Symptoms Checklist. HSCL = Hopkins Symptom Checklist.

unwanted but consensual sexting (i.e., number of unwanted sexts the person had sent) was entered in the first step and amount of sexting coercion experienced was entered in step two. For men, unwanted but consensual sexting accounted for less than one percent of the variance in negative mental health symptoms. Men's sexting coercion victimization accounted for an additional 24% of the variance [F -change_(1,15) = 4.92, $p < .05$]. Similarly, for women, having sent unwanted but consensual sext messages accounted for a small amount of variance (1.7%) in negative mental health symptoms. Women's sexting coercion victimization accounted for an additional 14% of the variance [F -change_(1,62) = 10.11, $p < .01$].

We also analyzed an additional trauma measure to explore the immediate and long-term effects of the sexting coercion and sexual coercion incidents. As shown in Fig. 1a and b, participants of both sexes rated their experiences of sexting coercion as more traumatic than their experiences of sexual coercion. To compare participants' self-reported trauma resulting from sexual coercion with self-reported trauma resulting from sexting coercion, data from the subsample of men and women who had experienced both forms of coercion were examined. In this subsample, the total trauma experienced (both then and now) was significantly higher for sexting coercion ($M = 2.27$, $SD = 2.40$) than for sex coercion ($M = 1.52$, $SD = 2.25$), $t_{(55)} = 2.17$, $p < .01$, $d = .32$. This is notable, considering that similar amounts of sexting coercion ($M = 20.59$, $SD = 26.60$) and sex coercion ($M = 19.38$, $SD = 26.20$) were reported in this subsample, $t_{(57)} = 0.62$, $p = .54$, $d = .05$.

Interestingly, we also found an effect for trauma over time, but only for women and only for sexting. Women's self-reported level of trauma now, looking back at their experiences with sexting coercion, was significantly higher than the level of trauma they said they felt at the time the sexting coercion occurred ($M = 1.21$, $SD = 1.45$ vs. $M = 0.88$, $SD = 1.14$, respectively), $t_{(64)} = 2.17$, $p < .05$, $d = .25$. However, for men, differences in self-reported trauma then versus trauma now were not significantly different for either their experiences of sexting or sexual coercion.

4. Discussion

In this digital age, sexting appears to be the norm in young adulthood; the clear majority of undergraduate men and women in this sample had engaged in sexting. Additionally, a sizable minority, one in five of these young adults (and one fourth of active sexters), had consented to sexting when they did not really want to sext. Although sexting in general was equally common in men and women, unwanted but consensual sexting was more prevalent

among women. However, contrary to our first hypothesis (H1a), sexting coercion victimization was as common among men as women. Some of the participants who engaged in unwanted but consensual sexting were responding to a partner's coercive behavior, while others engaged in unwanted but consensual sexting in the absence of coercion. In general though, the more coercion to sext that participants experienced, the greater the number of unwanted but consensual sext messages they reported sending. This was especially true for women, suggesting that women may be particularly susceptible to sexting coercion.

Interestingly, for the sample as a whole, sexting coercion was nearly as common as physical sex coercion, and the coercive tactics used were quite similar. As we predicted (H1b), when participants were asked about specific acts of coercion that they experienced, they were likely to report less severe coercive behaviors, such as repeated asking or making one feel obligated to engage in sex or sexting, at much higher rates than severe forms of coercion. Few participants in the sample reported that a partner had ever used physical force or threatened to do so as a way to coerce them into sexual intercourse or sexting. These results align with Struckman-Johnson et al. (2003) who found that in their sample of college students, the subtler forms of postrefusal sexual persistence were more common than the more severe forms, like acts or threats of physical violence. However, there were some slight differences in the coercive tactics that men and women reported experiencing. More specifically, men reported that their partners had most often withheld resources, or threatened to do so, as a way to try to coerce them into sexting or sexual intercourse. Meanwhile, women reported that their male partners used commitment manipulation, making them feel obligated to engage in these behaviors because of their status as a couple, to obtain sexually explicit messages or intercourse from them.

Additionally, intimate partner aggression was quite prevalent in this sample: Nearly three fourths of participants reported at least some sexual, physical, or psychological aggression by their current or most recent romantic partner. Moreover, in line with previous research (e.g., Agardh et al., 2012; Mechanic et al., 2008; Santhya et al., 2007) and with our hypotheses, intimate partner violence was significantly and positively related to both forms of sexual coercion (i.e., sexting and physical sex) (H2), and each of these was independently related to symptoms of anxiety, depression, and traumatic stress (H3). These relationships were significant for both men and women. Thus, just like the more traditional forms of partner aggression, sexting coercion was associated with anxiety, depression, and traumatic stress for both genders. However, notably, among both men and women, sexting coercion was more

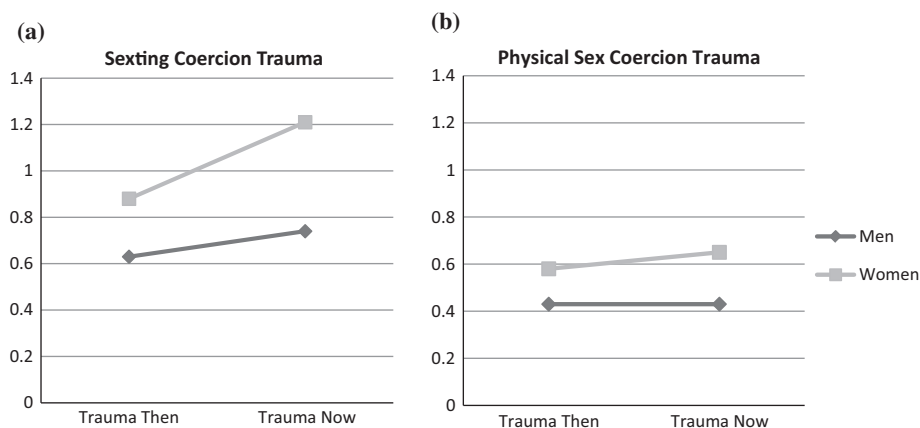


Fig. 1. (a and b) Trauma experienced at the time and now (looking back on experience) as a result of sexting coercion experiences and physical sex coercion experiences for men and women.

strongly related to these negative mental health symptoms than was actual participation in unwanted but consensual sexting.

Also notable is the fact that men who experienced sexting coercion endorsed even more negative mental health symptoms than men who experienced more traditional forms of partner aggression. Meanwhile, for women, sexting coercion was at least as strongly associated with anxiety, depression, and trauma symptoms as were traditional forms of partner aggression. This gender difference may reflect inconsistencies in the way that forms of aggression are interpreted by men versus women. For example, the same act of aggression, such as being grabbed or pushed by one's partner, may be experienced differently by women versus men and may be viewed as more threatening by the former. Perhaps men were not as distressed by, or did not take as seriously, their partner's overt aggression and instead were more disturbed by their partner's psychologically-aggressive, coercive behaviors, which may rely less on physical ability or size to have an (emotional) impact. In other words, women's threats to find another partner or to withhold benefits may have been relatively more distressing to men than women's threats or acts of physical or sexual aggression.

When comparing the level of trauma experienced as a direct result of their partner's coercion, on average, both men and women reported that they were more distressed by their partner's coercive behaviors related to sexting than by their partner's coercive behaviors related to sexual intercourse. Women also experienced significantly more distress at the time of the study, thinking back to their experiences of sexting coercion, than they reported feeling when the sexting coercion actually occurred. This was not the case when comparing women's reports of distress then and now as it related to their experiences with sexual coercion. Thus, there appears to be something unique about the experience of sexting coercion among women that may cause the level of associated distress to increase over time. Perhaps, especially for women who complied with their partner's coercion and provided sexually explicit picture or video messages, there is an ongoing or increasing level of worry associated with the possibility that the sext messages will be seen by others. As research has shown that the forwarding of sext messages does occur, even when the messages were sent to committed relationship partners (e.g., Drouin et al., 2013), this is a legitimate concern. This sort of increasing distress may not occur with other types of coercion, where physical evidence of the woman's behavior does not exist indefinitely. Additionally, distress here may be more pronounced among women because the sharing of their sexually explicit images may be experienced as a type of violation or victimization. A young man, in contrast, may view the sharing of his sexual images as reflecting his sexual desirability or masculinity.

4.1. Limitations

This study was developed as a follow-up to Drouin and Tobin (2014) to explore sexting coercion, intimate partner violence, mental health, and trauma, in a more systematic way, using validated instruments for each measure. Therefore, we see only a few limitations that may limit the generalizability of this work. First, as with much of the research in this area, we utilized a young adult college sample, which may not be representative of the entire population of U.S. adults. That said, considering that the significant relationships found in our sample mimic the findings from other studies using non-college samples, there is a convergence of evidence that partner abuse (including sexual coercion) is related to mental health and trauma symptoms. In this study, we have just extended this construct of sexual coercion to include its digital form—sexting coercion. Second, we examined only contemporaneous relationships between our measures; consequently,

we do not know the direction of influence between sexual coercion, intimate partner violence, and mental health and trauma symptoms. Our future work will explore whether sexting coercion precedes, coexists with, or follows other forms of partner aggression, and whether each of these precedes, coexists with, or follows generalized anxiety, depression, and trauma symptomatology.

4.2. Conclusion

Based on these data, it seems clear that partner coercive behavior related to sexting should be considered a form or manifestation of intimate partner aggression. In this sample, individuals who experienced partner coercive behavior related to sexting were more likely to experience traditional forms of intimate partner aggression, suggesting that sexting coercion may be one indicator of other types of partner aggression. The U.S. Department of Health and Human Services Office on Women's Health outlines three types of dating or intimate partner violence: physical, emotional, and sexual abuse (Department of Health, 2011). These are similar to the forms of partner violence described by the Centers for Disease Control and Prevention (CDC, n.d.). However, although the CDC lists "coercive tactics" as a form of emotional/psychological abuse, neither agency includes the use of coercion for the purpose of obtaining sexually-explicit electronic messages or pictures as a form or example of partner aggression. Because sexting is common among youth and young adults today, individuals may believe that sexting coercion is normal and even harmless. It should be made clear to youth and young adults that coercive behaviors related to sexting are inappropriate and do represent a form of intimate partner aggression, information that may fit well into existing sexual education programs for youth.

References

- Agardh, A., Tumwine, G., Asamoah, B. O., & Cantor-Graae, E. (2012). The invisible suffering: Sexual coercion, interpersonal violence, and mental health—A cross-sectional study among university students in South-Western Uganda. *PLoS ONE*, 7(12), 1–9.
- Associated Press & MTV (2009, September 23). AP-MTV Digital Abuse Study, Executive Summary. <http://www.athinline.org/MTV-AP_Digital_Abuse_Study_Executive_Summary.pdf>.
- Benotsch, E. G., Snipes, D. J., Martin, A. M., & Bull, S. S. (2013). Sexting, substance use, and sexual risk behavior in young adults. *Journal of Adolescent Health*, 52, 307–313. <http://dx.doi.org/10.1016/j.jadohealth.2012.06.011>.
- Briere, J., & Runtz, M. (1989). The Trauma Symptom Checklist (TSC-33): Early data on a new scale. *Journal of Interpersonal Violence*, 4, 151–163. <http://dx.doi.org/10.1177/088626089004002002>.
- Centers for Disease Control and Prevention. (n.d.). Retrieved from the CDC Website <<http://www.cdc.gov/violenceprevention/intimatepartnerviolence/definitions.html>>.
- Crimmins, D. M., & Seigfried-Spellar, K. C. (2014). Peer attachment, sexual experiences, and risky online behaviors as predictors of sexting behaviors among undergraduate students. *Computers in Human Behavior*, 32, 268–275. <http://dx.doi.org/10.1016/j.chb.2013.12.012>.
- Dake, J. A., Price, J. H., Maziarz, L., & Ward, B. (2012). Prevalence and correlates of sexting behavior in adolescents. *American Journal of Sexuality Education*, 7, 1–15.
- Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSLC): A self-report symptom inventory. *Behavioral Science*, 19, 1–15. <http://dx.doi.org/10.1002/bs.3830190102>.
- Department of Health and Human Services Office on Women's Health (2011, May). Retrieved from the DHHS Website <<http://www.womenshealth.gov/violence-against-women/types-of-violence/dating-violence.html>>.
- Dir, A. L., Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior*, 29, 1664–1670. <http://dx.doi.org/10.1016/j.chb.2013.01.039>.
- Döring, N. (2014). Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting? *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 8. <http://dx.doi.org/10.5817/CP2014-1-9>. article 9.
- Drouin, M. (2015). Sexual communication in the digital age. In L. D. Rosen, L. M. Carrier, & N. A. Cheever, (Eds.). *The Wiley handbook of psychology, technology and society*. Hoboken, NJ: John Wiley & Sons.
- Drouin, M., & Landgraff, C. (2012). Texting, sexting, and attachment in college students' romantic relationships. *Computers in Human Behavior*, 28, 444–449. <http://dx.doi.org/10.1016/j.chb.2011.10.015>.

- Drouin, M., & Tobin, E. (2014). Unwanted but consensual sexting among young adults: Relations with attachment and sexual motivations. *Computers in Human Behavior*, 31, 412–418. <http://dx.doi.org/10.1016/j.chb.2013.11.001>.
- Drouin, M., Vogel, K. N., Surbey, A., & Stills, J. R. (2013). Let's talk about sexting, baby: Computer-mediated sexual behaviors among young adults. *Computers in Human Behavior*, 29, A25–A30. <http://dx.doi.org/10.1016/j.chb.2012.12.030>.
- Ferguson, C. J. (2011). Sexting behaviors among young Hispanic women: Incidence and association with other high-risk sexual behaviors. *Psychiatric Quarterly*, 82, 239–243.
- Goetz, A. T., & Shackelford, T. K. (2010). Sexual coercion in intimate relationships scale. In T. D. Fisher, C. M. Davis, W. L. Yarber, & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 125–127). New York: Routledge.
- Judson, S. S., Johnson, D. M., & Perez, A. U. (2013). Perceptions of adult sexual coercion as a function of victim gender. *Psychology of Men and Masculinity*, 14, 335–344. <http://dx.doi.org/10.1037/a0030448>.
- Klettke, B., Hallford, D. J., & Mellor, D. J. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review*, 34, 44–53. <http://dx.doi.org/10.1016/j.cpr.2013.10.007>.
- Marshall, L. L. (1992). Development of the severity of violence against women scales. *Journal of Family Violence*, 7, 103–121.
- Mechanic, M. B., Weaver, T. L., & Resick, P. A. (2008). Mental health consequences of intimate partner abuse: A multidimensional assessment of four different forms of abuse. *Violence Against Women*, 14, 634–654. <http://dx.doi.org/10.1177/1077801208319283>.
- Muehlenhard, C. L., & Cook, S. W. (1988). Men's self-reports of unwanted sexual activity. *Journal of Sex Research*, 24, 58–72.
- Muehlenhard, C. L., & Peterson, Z. D. (2005). Wanting and not wanting sex: The missing discourse of ambivalence. *Feminism and Psychology*, 15, 15–20.
- O'Sullivan, L. F., & Allgeier, E. R. (1998). Feigning sexual desire: Consenting to unwanted sexual activity in heterosexual dating relationships. *Journal of Sex Research*, 35, 234–243.
- Peterson, Z. D., & Muehlenhard, C. L. (2007). Conceptualizing the "wantedness" of women's consensual & nonconsensual sexual experiences: Implications for how women label their experiences with rape. *Journal of Sex Research*, 44, 72–88.
- Santhya, K. G., Haberland, N., Ram, F. F., Sinha, R. K., & Mohanty, S. K. (2007). Consent and coercion: Examining unwanted sex among married young women in India. *International Family Planning Perspectives*, 33, 124–132.
- Sexting (n.d.). In *Merriam Webster* online. <<http://www.merriam-webster.com/dictionary/sexting>>.
- Sprecher, S., Hatfield, E., Cortese, A., Potapova, E., & Levitskaya, A. (1994). Token resistance to sexual intercourse and consent to unwanted sexual intercourse: College students' dating experiences in three countries. *Journal of Sex Research*, 31, 125–132.
- Struckman-Johnson, C. (1988). Forced sex on dates: It happens to men, too. *Journal of Sex Research*, 24, 234–242.
- Struckman-Johnson, C., Struckman-Johnson, D., & Anderson, P. B. (2003). Tactics of sexual coercion: When men and women won't take no for an answer. *Journal of Sex Research*, 40, 76–86.
- Testa, M., Vanzile-Tamsen, C., Livingston, J. A., & Koss, M. P. (2004). Assessing women's experiences of sexual aggression using the sexual experiences survey: Evidence for validity and implications for research. *Psychology of Women Quarterly*, 28, 256–265. <http://dx.doi.org/10.1111/j.1471-6402.2004.00143.x>.
- Varma, D., Chandra, P. S., Thomas, T., & Carey, M. P. (2007). Intimate partner violence and sexual coercion among pregnant women in India: Relationship with depression and post-traumatic stress disorder. *Journal of Affective Disorders*, 102, 227–235. <http://dx.doi.org/10.1016/j.jad.2006.09.026>.