



# The sending and receiving of sexually explicit cell phone photos (“Sexting”) while in high school: One college’s students’ retrospective reports



Donald S. Strassberg<sup>\*</sup>, Jordan E. Rullo<sup>2</sup>, Julia E. Mackaronis<sup>1</sup>

Department of Psychology, University of Utah, United States

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## ABSTRACT

The sending and receiving of sexually explicit photographs via cell phone, *sexting* has received much publicity in the popular media and increasing attention in the scientific literature. The research is being fueled, in part, by the several potentially problematic psychosocial and legal consequences of sexting, particularly when the person pictured in the photograph is a minor. Despite the surveys (those published in peer-reviewed journals and elsewhere) that have been conducted, their methodological limits have left us without a clear sense of even how many male and female teens are sending, receiving, and forwarding these sexually explicit photos via cell phone. The present study surveyed over 1100 undergraduate students from a single university regarding their experience with sexting while in high school. Results revealed that over 19% of the students reported having sent nude picture of themselves to others via cell phone (i.e., sexting), over 38% reported having received such a picture from someone else, and nearly 7% admitted to having forwarded such a picture to one or more others. Sex differences regarding sexting as well as its targets and its relationship to religiosity were also explored.

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## 1. Introduction

Cell phones and other modern communication technologies (e.g., Facebook, Tweeting, Instant Messaging, Instagram, Skype, Facetime) allow us virtually instant access to others at any time, from and to almost anywhere. Young adults are particularly likely to utilize such means of connecting, with approximately 95% of those ages 18–34 in the U.S. owning cell phones (Pew Internet & American Life Project, 2011), with figures not much lower for younger teens (Pew Internet & American Life Project, 2013). Unfortunately, these new means of connecting also provide new opportunities for people to “engage” with others (often many others) in ways that may not always be in their long-term best interests (e.g., Anthony Weiner).

In this paper, we examined one particularly important way of connecting, *sexting*, defined here as the transfer of sexually explicit photos via cell phone, a relatively recent phenomenon that has

garnered significant media attention (e.g., Ali & McGhee, 2013; Evangelista, 2009; Fattah, 2008; Hoffman, 2011; Rubinkam, 2008). Initial reports of the prevalence of sexting came from national surveys sponsored by and/or appearing in, popular media (National Campaign to Prevent Teen and Unplanned Pregnancy and CosmoGirl.com, 2008; The Associated Press and MTV, 2009) and later by the Pew Internet and American Life Project (Lenhart, Ling, Campbell, & Purcell, 2010). These surveys found that, across the age range of adolescents through adults, males and females were sending and receiving sexually suggestive/explicit photos via cell phone at prevalence rates of less than 10–30% or more. Soon after these surveys were made public, the first peer-reviewed, empirical studies appeared in scientific journals (Mitchell, Finkelhor, Jones, & Wolak, 2012; Strassberg, McKinnon, Sustaita, & Rullo, 2013).

In the last two years, many more sexting studies have been published, almost all involving surveys of teens and/or young adults (Benotsch, Snipes, Martin, & Bull, 2013; Dake, Price, Maziarz, & Ward, 2012; Delvi & Weisskirch, 2013; Dir, Cyders, & Coskunpinar, 2013; Drouin & Landgraff, 2012; Englander, 2012; Farber, Shafron, Hamadani, Wald, & Nitzburg, 2012; Ferguson, 2011; Gordon-Messer, Bauermeister, Grodzinski, & Zimmerman, 2013; Henderson, 2011; Hudson, 2012; O’Neal, Cummings, Hansen, & Ott, 2013; Peskin et al., 2013; Rice et al., 2012; Temple, Paul, Le, McElhany, & Temple, 2012; Turchik & Gidycz, 2012).

<sup>\*</sup> Corresponding author at: Department of Psychology, University of Utah, 380 S. 1530 E., Room 502, Salt Lake City, UT 84112, United States.

E-mail address: [donald.strassberg@psych.utah.edu](mailto:donald.strassberg@psych.utah.edu) (D.S. Strassberg).

<sup>1</sup> Address: Department of Psychology, University of Utah, 380 S. 1530 E., Room 502, Salt Lake City, UT 84112, United States.

<sup>2</sup> Address: Women’s Health Clinic, Mayo Clinic, 200 First Street SW, Rochester, MN 55905, United States.

Despite this recent tsunami of sexting research, one would be hard-pressed to derive a reliable estimate of the prevalence of the sending or receiving *sexts*, even among the most popular targets of this research, adolescents and young adults. The primary reasons for this difficulty are methodological: Specifically, the heterogeneity among studies in how sexting was operationalized and how the results were reported (Drouin, Vogel, Surbey, & Stills, 2013). The definitions of sexting used across these studies varied dramatically, including “nude photos of breasts or genitals” (e.g., Strassberg et al., 2013; Temple et al., 2012), photos described as “semi-nude” (Henderson, 2011), “almost nude,” “nearly nude” (Lenhart, 2009), “sexually suggestive” (Benotsch et al., 2013), “sexually provocative” (Dir et al., 2013), simply “sexual images” (Wolak, Finkelhor, & Mitchell, 2012), or even text messages described as “sexually charged,” (Dir et al., 2013) or “sexually suggestive” (Delvi & Weisskirch, 2013). Given this heterogeneity of operationalizations of sexting, it is no surprise that it is virtually impossible to arrive at a consensus for the prevalence of these behaviors.

Establishing reliable estimates for sending and receiving sexually explicit cell phone photos by minors (i.e., those less than 18 years of age) has been further hampered by the practice by some researchers of reporting pooled data in ways that mask important distinctions. For example, Mitchell et al. (2012) concluded that, based on their large-scale survey, only one percent of minors sent naked photos of themselves to others. But this figure included children age 10–17 and, while accurate for those 10–14, was exponentially higher for older teens. Yet the article’s abstract focuses on the 1% average, and this is the figure captured by the media (O’Connor, 2011). Further, other studies have reported prevalence rates for samples that *included, but were not limited to*, minors (Associated Press-MTC, 2009, National Campaign to Prevent Teen and Unplanned Pregnancy and CosmoGirl.com, 2008). Yet this legal adult – minor distinction has potentially important age-specific legal ramifications and/or other repercussions (e.g., school suspension). In addition, some research has reported the frequency of “sexting behavior,” failing to distinguish between the sending and receiving of these photos (Dake et al., 2012), despite the evidence that the prevalence, correlates, and consequences of these behaviors can be quite different (e.g., Strassberg et al., 2013).

The legal consequences of teen sexting derive primarily from the fact that nude photos of anyone under the age of 18 constitutes (and could, in theory, be treated legally as) child pornography. This then, technically, makes sending such a picture (even of oneself) the *distribution* of child pornography and its receipt, the *possession* of child pornography. Throughout the United States, possession or distribution of child pornography is a felony, often carrying consequences as severe as a mandatory prison sentence and/or placement on a public sex offender registry (Feyerick & Steffen, 2009).

The attempt to apply child pornography laws and consequences to sexting between teens has occurred in some jurisdictions (Irvine, 2009; Levisk & Moon, 2010; Ostrager, 2010; Schorsch, 2010; Schulte, 2009; Zetter, 2009; Zhang, 2010). Fortunately, teens are not often arrested for sexting (Chalfen, 2009; Wolak, et al., 2012). First, most instances of sexting are never reported to police or other authorities. Even among reported cases, legal consequences are the exception. In one report, arrest occurred in 62% of sexting cases when both an adult and a minor were involved, 36% of the “aggravated youth-only” (e.g., one teen coercing another to send you a sext of themselves) cases, and 18% of the experimental cases (youth only, no aggravation associated). Sex offender registration has only been applied in very few cases (Wolak, et al., 2012). Legislatures around the U.S. (and elsewhere, Crofts & Lee, 2013) have been scrambling to create or amend laws and other responses to sexting so as to discourage the behavior (when it involves images of

minors) without unreasonably punishing the more benign instances of this behavior (e.g., sending a sext to one’s girl/boyfriend) (Comartin, Kernsmith, & Kernsmith, 2013; De Hoyos, 2013; Judge, 2012; Korenis & Billick, 2013; LaMance, 2013; Lewin, 2009; Rau, 2010; Ryan, 2010).

More common than legal consequences of sexting, but also potentially serious (especially for adolescents), are the damages to reputation and self-esteem that can occur when explicit cell phone photos are made public, i.e., when they are subsequently used by their recipients to embarrass or otherwise harm the subject of the photo, a form of cyberbullying (Dosstoc.com, 2011; Inbar, 2009; Patchin, Schafer, & Hinduia, 2013; Raskauskas & Stoltz, 2007). There is little good data on how often this occurs or how serious the psychological consequences typically are. There have been anecdotal reports, however, of attempted suicides as a consequence of sexting gone wrong and several, apparently very uncommon (but well-publicized) instances of teens successfully taking their own lives following explicit photos they sent to someone ultimately being shared with many of their peers (Burleigh, 2013; Caron, 2011; Celizic, 2009; Inbar, 2009; Kaye, 2010).

Researchers have begun examining not just the prevalence of sexting, but also the behavioral and personality correlates of teens and young adults sending sexually explicit cell phone photos of themselves (e.g., Caron, 2011; Delvi & Weisskirch, 2013; Drouin & Landgraff, 2012; O’Neal, Cummings, Hansen, & Ott, 2013; Weisskirch & Delevi, 2011). Some have found a relationship between sexting and other forms of sexual and non-sexual risk-taking (Benotsch et al., 2013; Dake et al., 2012; Rice et al., 2012; Temple et al., 2012). Several sexting studies have explored the motivations of teens and others in sending sexts and the targets of these photos (e.g., Henderson, 2011; Lenhart, 2009; Mitchell et al., 2012; National Campaign to Prevent Teen & CosmoGirl.com, 2008; Temple et al., 2012). Not surprisingly, boyfriends and girlfriends have been found to be the most common targets of sexts, and the most common reasons reported for sending them were variations of “flirting” and as a “sexy present.”

Because of the potentially serious negative consequences of sending nude photos of oneself to others, particularly by teens, it is important for adolescents, parents, school administrators, and even law-enforcement personnel and state legislators, to understand this phenomenon and its potential impact on adolescents, and requires that, at the very least, we have an accurate idea of the frequency with which such behavior occurs. Despite there now being a substantial number of research publications on sexting, the methodological limits of many of these studies, described earlier in this section, leaves it unclear how many teens are actually sending and receiving truly explicit cell phone photos of themselves.

A recent study of high school students attempted to assess the prevalence of sexting by teens while addressing these methodological issues. Strassberg et al. (2013) anonymously surveyed over 600 students at a single private high school. Their recruitment approach resulted in over 95% of eligible students participating, avoiding the possibility of volunteer bias (Strassberg & Lowe, 1995). We found that 18.1% of these teens (18.5% males, 17.2% females) reported having ever sent a sexually explicit image (*sext*; defined as revealing genitals for either sex or breasts for females) of themselves via cell phone to another person. Further, half (49.8%) of males and nearly a third (30.4%) of females reported having ever received a sexually explicit picture via cell phone. The high school seniors in this sample were the most likely to report having ever sent or received a sext, while the freshmen were the least likely to have done so. Despite our unambiguous operationalization of “sexually explicit” and the very high rate of participation, the generalizability of these findings was limited by only students at a single high school participating.

Utilizing a larger and more geographically diverse sample of students than previously (Strassberg et al., 2013), while maintaining an unambiguous operationalization of sexting, the present study was designed to help better understand the phenomenon of sending and receiving truly sexually explicit photos (a *sext*) via cell phone (i.e., sexting) among adolescents. We assessed the prevalence of these behaviors by high school students, as retrospectively recalled by men and women recruited from a single, large, public university. This included extending our previous work by examining the possible association between sending and receiving sexually explicit cell phone photos and of the relationship between each behavior and participants' self-reported religiosity.

## 2. Hypotheses

In addition to further establishing basic prevalence rates for serious sexting (i.e., involving nudity) by teens while in high school, we anticipated, based on the Strassberg et al. (2013) findings that: (1) significantly more males than females would report having received a sexually explicit cell phone picture (i.e., a sext), (2) among both male and female students, significantly more would report having received than having sent a sexually explicit cell phone picture, (3) among those having received a sext, significantly more males than females would report having forwarded the picture to one or more others, and (4) male and female participants who report having received a sext will be significantly more likely than the others to report having sent a sext.

Based on the identified relationship between religiosity and sexual risk taking (e.g., Simons, Burt, & Peterson, 2009; Sinha, Cnann, & Gelles, 2007), we anticipated that (5) students' self-rated religiosity would be negatively associated with sexting (both sending and receiving). Given other published sexting research, we expected that (6) boyfriends/girlfriends would be the most often reported target of sexts.

## 3. Method

### 3.1. Participants

Participants for this study were 1130 college students (461 males and 669 females) recruited over a three-year period from undergraduate psychology courses at the University of Utah. All participants reported having graduated high school in 2007 or later.<sup>3</sup> Two study questions were not included in the earliest data collections for this study; therefore the numbers of participants in analyses involving these questions had a much smaller *N*; targets of sending a text (*N* = 161) or forwarding a sext (*N* = 104). As the largest public university in the state, the University of Utah (with a student population over 35,000) attracts students from throughout Utah, as well as across the U.S. (26%) and outside the country (>7%), including over 26% non-Caucasians.

### 3.2. Measures

The study questionnaire (see Fig. 1), created for this project, first asked several demographic questions, including participant sex, year graduated high school, religious affiliation, and importance of religion in their life. It then asked about the participants' experience, while in high school, in sending, receiving, and forwarding sexually explicit (i.e., revealing genitals of either sex or female

breasts) cell phone photos and, among those acknowledging having ever sent a sext while in high school, the targets of these sexts and their primary motive in sending them.

### 3.3. Procedure

These questions were completed, along with many others, from other studies, during a designated class period in sections of introductory psychology classes, as a means of earning extra credit. Completion of this study's questions required less than ten minutes. As per our agreement with the IRB, the study questions were preceded by a statement alerting the students to their nature and to their right to choose not to answer any or all of the questions.

## 4. Results

As seen in Fig. 2, 19.1% of respondents (17.8% of males, 20.1% of females) reported that, while in high school, they had sent a sexually explicit photo (i.e., of genitals of either sex or of breasts of females) of themselves via cell phone to another person's cell phone,  $\chi^2(1, N = 1129) = 0.91, ns$ . Further, 38.2% (47.1% of males, 32.1% of females) acknowledged having received such a picture. Consistent with Hypothesis 1, this sex difference in receiving a sext was significant,  $\chi^2(1, N = 1130) = 25.78, p < .001$ . Consistent with Hypothesis 2, significantly more people reported having received than having sent a sext; males,  $\chi^2(1, N = 461) = 90.21, p < .001$ , and females,  $\chi^2(1, N = 669) = 25.28, p < .001$ .

As also represented in Fig. 2, 7.8% of all the students acknowledged having ever forwarded a sexually explicit picture to at least one other person, with males being nearly three times more likely to have done so than females, 12.3% vs. 4.7%,  $\chi^2(1, N = 1053) = 20.48, p < .001$ . Stated another way, of the 411 students who reported that they had received a sext, 18.7% acknowledged having forwarded the picture to someone else, with males being significantly more likely to have done so than females (Hypothesis 3), 24.2% vs. 13.0%,  $\chi^2(1, N = 411) = 8.42, p < .005$ . We also asked whether participants had ever sent a sexually explicit photo that they had taken of someone else to a third party. Only 3.8% of students reported having done so, with significantly more males (6.8%) than females (1.8%) acknowledging this behavior,  $\chi^2(1, N = 1122) = 18.45, p < .001$ .

As expected (Hypothesis 4), participants who reported having received a sext were significantly more likely than others to report having sent one as well. Of 217 males who had received a sext, 73 (33.6%) had sent one as well, compared to only 9 (3.7%) of those (244) who had never received a sext,  $\chi^2(1, N = 461) = 70.46, p < .001$ . Similarly, of 215 females who reported having received a sext, 106 (49.3%) had sent one as well, compared to only 28 (6.2%) of those (453) who had never received a sext,  $\chi^2(1, N = 688) = 169.07, p < .001$ .

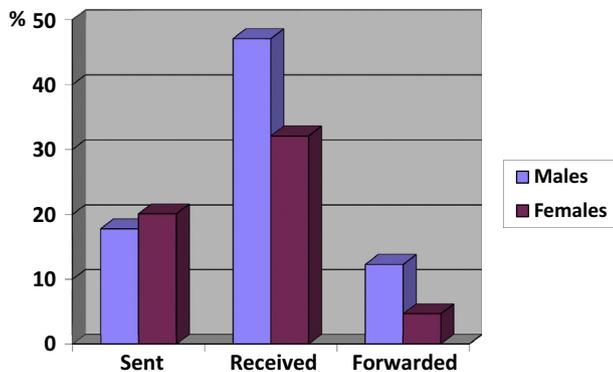
Of the 903 students who responded to the question on the importance of religion in their lives, the frequencies (on a 5-point scale) followed a U-shaped pattern; "not at all important" (29.6%), "somewhat important" (19.4%), "moderately important" (14.4%), "very important" (14.9%), and "extremely important" (21.7%). We analyzed having sent a sext as a function of self-described religious importance. As seen in Table 1, for males, this distribution was significantly different from chance,  $\chi^2(4, N = 371) = 11.34, p < .03$ , primarily as a function of those describing religion as "extremely important" being far less likely than the others to report having sent a sext than those describing religion as any less important. For females, this relationship was also significant,  $\chi^2(4, N = 532) = 30.30, p < .001$ ; again, those describing religion as "extremely important" were the least likely

<sup>3</sup> Given that sexting is a relatively recent phenomenon, we decided to exclude participants who graduated before the behavior became more commonplace, i.e., prior to 2007.

**During high school, did you:"**

1. Ever send a picture of your genitals (or breasts, if you are female) to someone else's cell phone? A=yes B=no
- 1a. If you answered YES to the above question, to whom did you send the picture of yourself?
  - a. A boyfriend/girlfriend (someone you're romantically involved with)
  - b. A friend (not your boyfriend/girlfriend)
  - c. Someone I wanted to date or hook up with
  - d. An acquaintance or someone I just met
2. Ever send a picture you took of someone else's genitals (or breasts, if they were female) to a third person's cell phone? A=yes B=no
3. Ever receive a picture of someone else's genitals (or breasts, if they were female) on your cell phone? A=yes B=no
4. Ever forward a picture you received of someone else's genitals (or breasts, if they were female) to a third person's cell phone? A=yes B=no
- 4a. If you answered YES to the above question, to whom did you forward the picture?
  - a. A boyfriend/girlfriend (someone you're romantically involved with)
  - b. A friend (not your boyfriend/girlfriend)
  - c. Someone I wanted to date or hook up with
  - d. An acquaintance or someone I just met

**Fig. 1.** Sexting questions.



**Fig. 2.** Percentage of male and female college students reporting having sent, received, or forwarded a sexually explicit cell phone picture ("sexting") while in high school.

**Table 1**  
Percentage of teens reporting having sent or received a SEXT as a function of self-reported religiosity.

Importance of religion	Sent SEXT		Received SEXT	
	Males (%)	Females (%)	Males (%)	Females (%)
Not at all important	18.9	28.1	55.7	43.8
Somewhat important	24.4	29.9	55.1	45.4
Moderately important	23.5	20.5	52.9	39.2
Very important	16.4	11.3	45.5	28.8
Extremely important	4.6	6.9	10.8	10.7

to report having sent a sext. Interestingly, for both males and females, religious importance was also significantly associated with reports of having *received* a sext, despite it obviously being something over which they would have had less control than choosing to send one; males,  $\chi^2(4, N = 371) = 40.77, p < .001$ , females,  $\chi^2(4, N = 533) = 45.98, p < .001$ . As seen in **Table 1**, the effect of religiosity was largely the result of both males and females describing religion as "extremely important" being far less likely than the others to report having received a sext.

In the last year of conducting this study, we were able to include a question concerning the *targets* of sexts sent by participants. As this question was asked only of those in our last cohorts, answers were provided by a smaller number of participants (i.e., 124 senders of a sext). Of the 42 males in this group who had sent a sext of themselves, most sent it to either "a boyfriend/girlfriend" (54.8%) or "a friend (not a boyfriend/girlfriend)" (31.0%) as the target. The remaining few males chose "someone I wanted to date or hook up with" (11.9%) or "an acquaintance or someone I just met" (2.4%). Of the 82 females responding to this question, "boyfriend/girlfriend" was, by far, the most common target of their sext (82.9%), followed by "a friend (not a boyfriend/girlfriend)" (14.6%), and "someone I wanted to hook up with" (2.4%). No female identified "an acquaintance or someone I just met" as a target. These distributions of sexting targets for males and females were significantly different from each other,  $\chi^2(3, N = 124) = 13.03, p = .005$ .

**5. Discussion**

Consistent with the findings of our previous study of high school students (Strassberg et al., 2013), we again found that substantial numbers of teens are sending explicit cell phone photos of themselves depicting true nudity (i.e., bare genitals or female breasts), and that significantly more have received such pictures. Although the methodology used here was different from our previous study (i.e., retrospective reports of college students vs. reports of teens attending a single high school; the current sample having attended many high schools in and outside of Utah), the prevalence rates found were nearly identical. Specifically, over 19% of our current sample of undergraduates reported that, while in high school, they had sent a sexually explicit (i.e., nude) photo of themselves via cell phone, while over 38% reported having been the recipient of such a sext. The consistency of these findings leads us to believe that they are likely valid estimates of the prevalence of these behaviors. These figures are also similar to those of some other reports (e.g., Benotsch, et al., 2013; Temple et al., 2012), but higher than others (e.g., Dake et al., 2012). It is likely that the differences

among the published reports are, in large part, the result of different methodologies (e.g., definitions, ages, sample sizes) as described in the introduction of this paper and elsewhere (e.g., Strassberg et al., 2013).

As expected, the males we surveyed were more likely than the females to report having *received* a sext while in high school, despite both groups reporting similar prevalence figures for *sending* a sext. The difference is likely the result of the forwarding of these photos: Among those who received a sext, 18.7% sent the picture on to others. As we've found previously (Strassberg et al., 2013), males were far more likely than females (30% vs. 12.2%) to forward sexts they'd received. This forwarding, especially by male recipients of sexts, is a key element in what makes sending explicit cell phone photos so potentially problematic, particularly for females: Once a sext has been sent, the sender has virtually no control over who, or how many, will eventually come to have that picture on their cell phone. In response to this concern, several cell phones applications (apps) have been created (e.g., SnapChat) that cause a picture to disappear seconds after it appears on a receiver's cell phone, presumably making it very difficult or even impossible to forward. Yet even these apps still leave these photos subject to screen shots and other techniques that can still make them permanently available for storage and/or forwarding (Phillips, 2014).

It is perhaps not surprising that, for both males and females, those reporting having received a sext were significantly more likely than non-recipients to report having sent one as well. In fact, among males, recipients of sexts were 10 times more likely to have sent one than were non-recipients (31% vs. 3%), while for females, the ratio was almost as high, 9–1 (49% vs. 5.5%). This strong relationship certainly suggests that, like texting in general, sexting is a reciprocal activity in this population.

Religiosity has often been found to be negatively associated with sexual risk taking (e.g., Simons et al., 2009). We anticipated, therefore, that the more religious a participant described themselves as being, the less likely they would be to report having sent or received a sexually explicit cell phone picture. The prediction about receiving was based on the premise that the more religious a person believed them self to be, the less likely they would be to have requested such a photo from someone or to be seen by another as the type of person who would appreciate such a photo. Overall, we did find religiosity to be negatively associated with both sending and receiving sexts. For males and females, this effect was largely the result of the most religious individuals (those describing themselves as “extremely religious”) being substantially less likely to report having sexted than all the other groups. While the most religious could have simply been unwilling to acknowledge having engaged in sexting, we do not believe this to have been the primary reason for our findings given that the questionnaire was anonymous and those not wanting to reveal their sexting history could have easily chosen to not answer any of the sexting questions or not participate. It is interesting to note that, even among those describing themselves as “extremely religious,” almost 6% acknowledged having sent a nude sext and over 10% said they had received one. Still, if primarily in the extreme, religiosity mattered.

The pattern of targets of the sexts sent by males vs. females was rather different and interesting. While, as anticipated, the most common target for both groups was boyfriend/girlfriend, a far smaller proportion of males selected this option than did females (47.6% vs. 79.6%). Of course, that meant that a far higher proportion of males than females were willing to send an explicit picture of themselves to someone outside of an established boyfriend/girlfriend relationship, i.e., a non-boyfriend/girlfriend friend (39.7% vs. 17.3%), someone they wanted to “hook up with” (9.5% vs. 3.1%), or someone they “just met” (3.1% vs. 0%). These pattern differences are certainly consistent with the large body of literature

suggesting that, compared to women, men demonstrate a more positive attitude toward casual sexual encounters (Peterson & Hyde, 2010).

Despite the recent increase in sexting research on teens and young adults, there are still a number of important questions in need of reliable answers. These include (but are clearly not limited to) the following: (1) Is sexting among teens meaningfully related to other risk-taking, both sexual and otherwise? If so, what is the nature of the relationship (e.g., what's cause vs. effect and what variables might underlie all of these risks)? (2) Are there other personality correlates of teens sending or receiving sexts? (3) We need to have a better understanding of the motives of teens in sending naked photos of themselves to others (i.e., what benefits, if any, do teens expect to experience through sexting, and how often do they find these realized?) and (4) a clearer sense of their appreciation (or lack thereof) for the possible consequences (both positive and negative) of sexting. (5) What, if any, negative and positive experiences have teens realized through sexting? We know about some of the exceptionally bad outcomes, but what about all the others? (6) Does sexting increase or decrease initiation into more physical sexual interaction? (7) How often is sexting used as a form of cyber-bullying by teens? (8) What, if anything, should parents, educators, law enforcement, and legislators do about teen sexting? What responses from these groups are most likely to be effective, and what would constitute an effective response? Could our reactions to sexting by teens create more problems than the behavior itself? It would also be important to (9) understand the roles (if any) played by such variables as ethnicity, socioeconomic status, peer pressure, beliefs like “everybody's doing it,” and of personal knowledge of sexting gone well or badly, in teens' decisions regarding sexting.

### 5.1. Limits

The primary limits of this study concern the nature of our sample. While we were able to recruit a large sample, it was restricted to students attending one large, public university drawing the majority of students from a single state (Utah). While a more geographically representative sample would have been preferable, over a quarter of our participants attended high school (the time period that was the target of this study) outside of Utah, including over 7% from outside the U.S. Further, our prevalence rates were similar to those of reports from around the country (e.g., Benetsch, et al., 2013; Temple et al., 2012), arguing for their generalizability.

While they represented less than half our sample, members of the Church of Jesus Christ of Latter Day Saints (Mormon) faith were over-represented (compared to national norms) in our sample. This limitation may be minor, however, given that rates for sending and receiving sexts when the self-identified Mormon students were excluded from our analyses were very close to those reported for the whole sample, differing by an average of only 1.5% and not always in the same direction (i.e., the Mormon participants did not consistently engage in more or less sexting than the non-Mormons).

Of course, like all studies dependent on volunteers, we have no way of knowing how representative our participants were of the larger population from which they were drawn (Strassberg & Lowe, 1995). Still, our findings were generally consistent with those from our previous study of high school students (Strassberg et al., 2013) where we had virtually every student participating. Another limit is that our sample was largely (74%) Caucasian; a larger representation of ethnic/racial minorities might have resulted in prevalence rates somewhat different from those reported here (Temple et al., 2012). Further, our data was retrospective. Yet the time frame involved (from sexting to

reporting) was relatively short and, again, our findings were quite similar to that which we obtained from those still in high school. Finally, our data, while collected anonymously, was obtained exclusively via self-report, thereby making it susceptible to possible over- or under-reporting.

## 5.2. Conclusion

Even with its limitations, the results of this study demonstrate that, consistent with some of the survey data available from the popular media and from most of the peer-reviewed published studies, sexting is far from a rare occurrence. Substantial numbers of young men and women report that, as high school students, they sent and received these undeniably sexually explicit photos. Given the likely ages of these sexters at the time, most of these individuals would have, technically, been involved in the creation, transmission, and/or possession of child pornography. It is unlikely that treating teens that send or receive a sexually explicit cell phone picture as sex offenders is a useful reaction to the issue. Yet, we still need to understand sexting by teens more fully if we want to know how, or even if, we should respond to this popular phenomenon.

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