

Sexy Southerners: Sexting Content and Behaviors Among Selected Southern Undergraduates

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Abstract

Sexting is defined as sending/posting/sharing sexually explicit messages or nude/semi-nude images via electronic communication. Purpose: The purpose of this study was to assess and determine relationships of sexting behavioral intentions, sexting behaviors, and sexting content among selected Southern undergraduate students. Methods: Survey instruments were administered to multiple sections of a required undergraduate Health and Fitness course at a mid-sized, Southern university. Survey instruments were analyzed using a series of descriptive statistics, t-tests, Kruskal-Wallis tests, and Spearman's Rho correlations. Results: Of nearly 500 (n=469) undergraduate participants, nearly three-fourths of participants (73.1%) have ever sexted, while 35% have sexted within the past 30 days. Statistically significant differences were found in sexting content among gender, race, number of lifetime and current sexual partners, and number of lifetime sexting partners. Statistically significant (but moderate) positive correlations were found between sexual and sexual partners, sexual images, sexual messages, and risk reduction sexts. Discussion: The majority of participants engaged in a variety of sexting behaviors with varied content. Further, those who sext also discussed STI/HIV prevention, as well as other risk reduction behaviors.

Introduction

The vast majority of Americans (91%) are cell phone users (Nielsen Mobile, 2008), with research indicating about 97% of emerging adults between ages 18-29 owning cell phones (Rainie, 2013). Cell phone ownership does vary slightly by socioeconomic status, by race and by gender (Rainie, 2013). U.S. adolescents (and the general population) spend more time texting than talking on their cell phones (Nielsen Mobile, 2008; Rideout, Foehr, & Roberts, 2010; Duggan, 2013).

Sexting is defined in this study as sending/posting/sharing sexually explicit messages or nude/semi-nude images via electronic communication. Sexting has been cited to have several benefits among adults who engage in this behavior, including increasing the likelihood of sex, and feeling excited, happy or aroused (Dir et al, 2013). Bullying, anxiety, depression, and suicide could result as a consequence of sending sext messages (Dake, Price, Maziarz & Ward, 2012). These potential negative consequences are also problematic when sexts are forwarded to unintended receivers. Recent research suggests that risks associated with sexting may be overstated (Dir & Cyders, 2015).

Even with negative media attention, the popularity of sexting has not been affected among college students, as Computer Mediated Communication (CMC) remains a significant form of communication (Robinson & Stubberud, 2012). CMC is communication that occurs via any electronic device, such as text messaging, online forum, social networks, emails, instant messaging, etc. (Thurlow, Lengel, & Tomic, 2004). Over half of young people who sext transmit messages via cellular phone (The National Center for Missing and Exploited Children, 2009). However, Internet e-mail, instant messengers, and social networking systems (such as Facebook©) are commonly used for sexting too (The National Campaign, 2008; The National Center for Missing and Exploited Children, 2009). According to the National Campaign to Prevent Teen and Unplanned Pregnancy, one-fifth of teens ages 13-19 have sent or posted nude or seminude pictures or video of themselves (The National Campaign, 2008).

In order to understand and explore sexting, consider sexting within the framework of the Integrative Model of Behavior (Fishbein, 2000). This theoretical framework incorporates constructs of the Social Cognitive Theory and the Theory of Reasoned Action (Ajzen & Fishbein, 1980). Exploring the behavior of sexting through this framework allows researchers to predict that exposure to forms of media will impact behavior through changes in behavioral intentions, which are themselves a product of attitudes, norms, and perceptions of self-efficacy gained through media and different sources. Thus, through exposure, emerging adults learn what is the likely result of sexting, whether their peers participate or support the behavior, and consider themselves as being able to participate in such activities as well (Collins, Martino, & Shaw, 2010).

In comparison to being exposed to sexual content as an audience member, Collins, Martino, and Shaw (2010) further suggest that being an active participant and creating content portraying oneself in a sexually suggestive manner may affect subsequent sexual behavior, and the authors of this paper would contend that doing so may affect subsequent sexting as well. Collins, Martino, and Shaw speculate that producing sexually suggestive content using "traditional media" (e.g. television, radio/music, movies or magazines) (Brown, Keller & Stern,

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2009) may influence one's perception of him/herself as a sexual object or agent or that this behavior may impact how others view and/or interact with that person (Collins et al., 2010). Examining this phenomenon in the context of using "new media" (e.g. the Internet, social networking sites or cell phones) (Brown, Keller & Stern, 2009) presents a novel application of this framework. Sexts may be created as a result of perceived social pressures or as a joke, but regardless of the factor influencing the behavior, the intentions behind the sext and the resulting sexual behavior may be incongruent with prior experience (Collins et al., 2010). Sexting intentions are considered in the current study.

In addition to examining intentions, demographic characteristics such as the context of being in a committed relationship may influence sexting. Previous research has pointed to the possibility that relationship status may affect sexting behaviors and/or intentions (AP-MTV, 2009; Hudson, Fetro, & Ogletree, 2014; Lenhart et al., 2010; Mitchell, Finkelhor, Jones, & Wolak, 2012; The National Campaign, 2008). Sexting has been shown to occur between "romantically committed partners;" (Drouin & Landgraff, 2011; Hudson et al., 2014; Wisskirch & Delevi, 2010) however, about one third of college students sampled reported initiating sexual intercourse with someone after sexting (Benotsch, Snipes, Martin, & Bull, 2012). Drouin, Vogel, Surbey, and Stills suggest future research studies of sexting should consider differences among sexting behaviors and/or intentions in the context of relationship status, (Drouin, Vogel, Surbey, & Stills, 2013) and the current study meets this need.

Among empirical research on the topic of sexting among young adults, many sexting studies focus largely on the prevalence of sexting behaviors. Thus, this study fills a void in the existing literature by exploring details about college students' sexting content, such as whether the sext contained a sexually suggestive message, a semi-nude image, a nude image without their face, a nude image with their face, etc. Additionally, this study explores the correlation between different types of sexting content (i.e., sexual messages, images, risk reduction sexts) and sexual and sexual partners.

The purpose of this study was to assess selected demographics, sexting behavioral intentions, specific sexting behaviors – including reasons for sexting and to whom individuals were sending sexts - and content of sext messages among selected undergraduate students living in the South and also to determine relationships among these factors.

Materials and Methods

A non-random, convenience sample at a mid-sized university in the South was used for this study. This exploratory research study used a descriptive, cross-sectional, correlational design. This study's sample included undergraduate students, 18-26 years old, enrolled in the required Concepts of Lifetime Health and Fitness course, which is required for all undergraduates during the spring and summer semesters of 2013. Upon receiving approval from the university's Institutional Review Board, classroom instructors were contacted via email and approval was obtained for 32 of the 38 sections.

For students who volunteered to participate, informed consent documents, Scantron© sheets, pencils, and survey instruments were distributed. Instructors were asked to leave the room during data collection due to the sensitive questions

on the instrument. A researcher explained the study's purpose, read aloud the informed consent, solicited questions, and then reiterated that participants are encouraged to use their copy of the informed consent to conceal their responses. To maintain confidentiality, participants dropped their Scantron© sheet into the covered box upon completion. The box was sealed by the researchers after each class and stored in a secure location.

The instrument assessed demographic variables, sexting content, sexting behaviors, and behavioral intentions to sext. The instrument was partially adapted and revised questions from The National Campaign's *Sex and Tech* survey instrument, (The National Campaign, 2008) regarding sexting behaviors including types of sexts sent and to whom participants sexted. Additional items designed by the researchers were added to sections regarding sexting behavior (i.e., different types of sexting behaviors). In addition, a section of questions designed by one of the researchers from a previous study (Hudson et al., 2014) to assess sexting behavioral intentions (i.e., situations that could influence intentions to sext message) were added to capture information regarding perceptions of situations that may or may not influence those who have never sexted. Lastly, questions regarding content of sexts were added to the instrument and detailed below. Instrument questions largely yielded yes/no/both responses. The responses from each section (detailed below) were given a value to scale for analysis.

Of particular interest to the researchers was the content of the sexts sent. A section regarding content of sexts sent was categorized in three groups: sexual images (i.e., nude or semi-nude images), sexual messages (sexually explicit messages), and risk reduction sexts. Six questions were added regarding the content of sexual images sent. The six questions regarding the content of the sexual images included "penis/vulva," "buttocks," "topless/shirtless," "full length photo exposing face and penis/vulva," "full length photo exposing face and breasts/chest," and "wearing undergarments only." Three questions were added regarding sexual messages. These questions solicited whether or not a participant sent a sext "insinuating or implying sex," "explicit language about sex acts," and content with "intent to meet with person to engage in sexual acts." Three questions were identified as "risk reduction" behaviors associated with sexting, because they could potentially decrease unplanned pregnancy and/or sexually transmitted infections (STIs). The questions included "discussed contraception/condom use," "discussed sexually transmitted infection/HIV testing," and "discussed number of sexual partners."

Lastly, a section on demographic variables was added to the instrument including: gender, age, race, sexual orientation, current relationship status, number of lifetime and current sexual partners, and number of lifetime and current sexting partners. Cells lacking adequate number of responses for analysis were collapsed into smaller categories and the results were further analyzed. The instrument has good internal consistency, with Cronbach alpha coefficient of .855 for the overall instrument; .845 for the content subscale, and .834 for the behavioral intentions subscale. Survey instruments were analyzed using a series of descriptive statistics, t-tests, Kruskal-Wallis tests, and Spearman's Rho correlations.

Results

Demographics

The response rate was 95.7% (N=469). Most of the participants (78%) surveyed were less than 20 years old; white (66%) and heterosexual (92%). Regarding gender, 55% of those surveyed identified as female. Many of the participants (n=205, 43.7%) indicated that they were not currently in a relationship. Although about one third (n=153, 32.6%) were currently in a serious relationship. Many of the participants (n=195, 41.6%) reported having between 1-3 sexual partners in their lifetime, and about the same number of participants (n=200, 42.6%) reported having 4+ sexual partners in their lifetime; while 15.8% indicated having never had a sexual partner. About half (n=235, 50.1%) reported having one sexual partner within the last 30 days. While only 35% reported having at least one sexting partner currently (within the last 30 days), 73% reported having ever sexted in their lifetime.

Intentions to Sext

Most of the participants (81.4%) reported that they were likely to sext if they were married to the person receiving the sext. The second most common scenario in which many of the participants (62%) were likely to sext was if they were in a monogamous/committed relationship. Additionally, many participants reported being likely to sext if they could be certain the sext would be kept and remain private (58.4%) or if they trusted the receiver (57.8%). See Table 1 for more information on sexting intentions.

Sexting Behaviors

Nearly three-fourths of participants (73.1%) have sexted in their lifetime, while a little more than a third (35%) have sexted within the past 30 days. Among those who had sexted, reasons reported for sexting varied, with approximately one third of participants reporting some of the same reasons for sending sexts (see Table 2). Most participants (81.1%) reported sending sexy messages or images to be fun/flirtatious, and about three quarters of participants (76.9%) reported that they sent a sexy message or image simply in response to receiving one.

Many of the unhealthy reasons to sext were not indicated as being likely reasons participants had sent a sext. A few participants reported that they were sending a sext because their friends were sexting (3.4%) or because they were blackmailed (3.7%). Also, some participants (11.4%) indicated that they sent a sext because they felt pressured. See Table 2 for more information about reasons for sending sexts.

Among those who sexted, most of the participants (82%) had sent their sexts to their significant other. Over half (52.3%) reported sending sexts to someone they had casually dated or hooked up. Alternatively, fewer participants (8.6%) indicated that they had sent a sext to someone who coerced or blackmailed them. See Table 3 for more information on identifying receivers of sexts.

Content of Sext Messages

Sexual Images

Regarding the content of the sexts, among all of the lifetime sexters (n=350; 73.1%), nearly two-thirds (63.4%; 47.1% in the past 30 days) reported they had sent an image of themselves

Table 1.
Frequencies and Percentages of Instrument Items Assessing Sexting Behavioral Intentions (n=469)

Mark whether you are likely to sext, given situation described below.	Yes	No
If I am married to the person receiving the sext	382 (81.4%)	87 (18.6%)
If I am in a monogamous/committed relationship	291 (62%)	178 (38%)
If I am 100% sure it would be kept and remain private	274 (58.4%)	195 (41.6%)
If I trust the receiver	271 (57.8%)	198 (42.2%)
If I receive a sext from someone I like	176 (37.5%)	293 (62.5%)
If I am sole owner of my cell phone or computer	167 (35.6%)	302 (64.4%)
If I am drunk or high	136 (29%)	333 (71%)
If someone I like asks me	120 (25.6%)	349 (74.4%)
If I felt my face/body was more attractive	119 (25.4%)	350 (74.6%)
If I was using the app Snapchat*	95 (20.3%)	374 (79.7%)
If someone blackmails me	31 (6.6%)	438 (93.4%)
If someone pressures me	23 (4.9%)	446 (95.1%)
If all my friends were sexting	20 (4.3%)	449 (95.7%)

*Snapchat is a photo messaging application for iPhone. Each picture sent through Snapchat has a time limit (set by the sender) for how long recipients can view each photo (up to 10 seconds) after which the picture will dissolve and be deleted from the recipient's device and the company's servers.

Table 2.
Frequencies and Percentages of Instrument Items Assessing Reasons for Sending Sexts, among Sexters Only (n=350)

I sent a sexy personal message/picture/video:	Yes, for Sexy Message	Yes, for Sexy Picture or Video	Yes, for Both	Neither
To be fun/flirtatious	131 (37.4%)	26 (7.4%)	127 (36.3%)	66 (18.9%)
In response to one that was sent to me	111(31.7%)	27 (7.7%)	131 (37.4%)	81 (23.1%)
To initiate sexual behavior with the recipient	83 (23.6%)	19 (5.4%)	117 (33.3%)	132 (37.6%)
To enhance my relationship	76 (21.7%)	16 (4.6%)	116 (33.1%)	142 (40.6%)
As a “sexy” present	63 (18.0%)	28 (8%)	112(32%)	147 (42%)
To feel sexy/good/erotic	52 (14.9%)	26 (7.4%)	106 (30.3%)	166 (47.4%)
To initiate a romantic relationship with the recipient	69 (19.7%)	13 (3.7%)	81 (23.1%)	187(53.4%)
To satisfy sexual needs	43 (12.3%)	22 (6.3%)	92 (26.3%)	193 (55.1%)
As a joke	72 (20.6%)	13 (3.7%)	48 (13.7%)	217 (62%)
To get a guy/girl’s attention	56 (15.9%)	11 (3.1%)	66 (18.8%)	219 (62.2%)
To make/enhance emotional connection	47 (13.4%)	11 (3.1%)	74 (21.1%)	218 (62.3%)
For affirmation of my attractiveness	23 (6.6%)	24 (6.9%)	48 (13.7%)	255 (72.9%)
Because there is no risk of pregnancy or sexually transmitted infections with sexting	21 (6%)	6 (1.7%)	55 (15.7%)	268 (76.6%)
Because sexting is more comfortable than saying/showing things face-to-face	38 (10.9%)	7 (2.0%)	35 (10%)	270 (77.1%)
Because I worry my partner will get bored/disappointed if I don’t sext	25 (7.1%)	6 (1.7%)	41(11.7%)	278 (79.4%)
Because I was pressured	13 (3.7%)	9 (2.6%)	18 (5.1%)	310 (88.6%)
Because I was blackmailed	2 (0.6%)	9 (2.6%)	2 (0.6%)	337 (96.3%)
Because my friends are sexting	4 (1.1%)	3 (0.9%)	5 (1.4%)	338 (96.6%)

wearing only undergarments. Nearly two-thirds (62.5%; 45.4% in the past 30 days) reported sending topless/shirtless images. Almost half (48.5%; 34.9% in the past 30 days) sent an image of their penis or vulva. See Table 4 for more information on the content of sexual images, as well as more detail on sexual messages and risk reduction sexts outlined below.

Sexual Messages

Nearly two-thirds of the messages sent (60.9%; 34.9% in the past 30 days) contained explicit language about sex acts. About half (51.5%; 30.9% in the past 30 days) of the messages sent insinuated/implied sex. And about half (50.9%; 29.7% in

the past 30 days) of the messages sent indicated intent to meet with the person to engage in sex acts.

Risk Reduction Sexts

Nearly a quarter (23.8%; 14.9% in the past 30 days) of participants discussed getting tested for STIs or HIV in their sext messages. Nearly half (45.2%; 24.9% in the past 30 days) discussed contraception/condom use, and 39.7% (25.4% in the past 30 days) discussed number of sexual partners with the person they were sexting.

Table 3.

Frequencies and Percentages of Instrument Items Assessing Receivers of Sexts (n=350)

To whom have you sent/posted sexually suggestive messages or nude/semi-nude pictures or videos of yourself? (Please think about any and all of those you have ever sent/posted)	No	Yes
My significant other	63 (18%)	287 (82%)
Someone I casually dated or hooked up with	167 (47.7%)	183 (52.3%)
Someone I wanted to date or hook up with (i.e., crush)	206 (58.9%)	144 (41.1%)
Someone of romantic interest other than my significant other	219 (62.6%)	131 (37.4%)
Someone I only met online	269 (76.9%)	81 (23.1%)
One or more good friends	273 (78%)	77 (22%)
Someone who forced me or blackmailed me	320 (91.4%)	30 (8.6%)

Table 4.

Frequencies and Percentages of Instrument Items Assessing Receivers of Sexts (n=350)

If you have previously sexted, please select the appropriate response regarding the content of the sext.	Yes, within the past 30 days	Yes, but NOT within the past 30 days	No
Wearing undergarments only (i.e., bra/panties/boxers/briefs)	57 (16.3%)	165 (47.1%)	128 (36.6%)
Topless/shirtless	60 (17.1%)	159 (45.4%)	131 (37.5%)
Explicit language about sex acts	91 (26.0%)	122 (34.9%)	137 (39.1%)
Insinuating or implying sex	72 (20.6%)	108 (30.9%)	170 (48.6%)
Intent to meet with person to engage in sexual acts	74 (21.1%)	104 (29.7%)	172 (49.1%)
Penis/Vulva	48 (13.7%)	122 (34.9%)	180 (51.4%)
Discussed contraception/condom use	71 (20.3%)	87 (24.9%)	192 (54.9%)
Full length photo exposing face and breasts/chest	46 (13.1%)	94 (26.9%)	210 (60.0%)
Discussed number of sexual partners	50 (14.3%)	89 (25.4%)	211 (60.3%)
Buttocks	35 (10%)	96 (27.4%)	219 (62.6%)
Full length photo exposing face and penis/vulva	30 (8.6%)	62 (17.7%)	258 (73.7%)
Discussed sexually transmitted infections or HIV testing	31 (8.9%)	52 (14.9%)	267 (76.3%)

Differences in Sexting Content based on Demographic Variables

Independent t-test and a series of Kruskal-Wallis tests were conducted to assess differences in mean scores of different sexting content (i.e., sexual images, sexual messages, and risk reduction sexts) and selected demographics, including: gender, race, number of current and lifetime sexual partners, number of current and lifetime sexting partners, age, and sexual orientation among participants who reported previously sexting. Demographic variables with small cell sizes were collapsed and combined to address minimum effects of sample inequalities. No differences were found between sexting content and age, relational status, or sexual orientation.

Differences in Sexting Content Based on Gender

A series of independent t-tests were conducted to assess differences in mean scores based on gender. Statistically significant differences were found for gender and sexual messages only ($t=2.539$; $p=.012$), with males sending sexual messages more than females.

Differences in Sexting Content Based on Race

Kruskal-Wallis tests were conducted to compare differences in mean scores based on race. Race was categorized into white, Hispanic, Black/African American, Asian, and other. No statistically significant differences were found between race and sexual messages or risk reduction sexts. However, statistically significant differences were found between race and sexual images ($\chi^2(4, n=350)=10.428, p=.034$). Mann-Whitney U Test post-hoc analysis confirmed differences between sexting images among Black/African American participants and White participants with Black/African American participants sending more sexual images.

Differences in Sexting Content Based on Lifetime Sexual Partners

A series of Kruskal-Wallis Tests revealed statistically significant differences in content and number of lifetime sexual partners. Number of lifetime sexual partners was categorized into groups including, virgin (no sexual partners), 1-3 partners, 4-6 partners, 7-9 partners, 10-19 partners, and 20 or more partners. Statistically significant differences were found for all three content areas: sexual images ($\chi^2(5, n=350)=25.493, p=.000$), sexual messages ($\chi^2(5, n=350)=27.162, p=.000$), and risk reduction sexts ($\chi^2(5, n=350)=21.053, p=.001$).

Across all content, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with zero lifetime sexual partners (i.e., virgins) and all groups who were not virgins, with non-virgins sending more sexual images, messages, and risk reduction sexts. Additionally, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with more than 10 lifetime sexual partners and groups with 6 or less partners for sexual images and messages, with groups of 10 or more partners sexting more. For risk reduction sexts, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with 1-3 partners and 10-19 partners, with groups of 10-19 partners sending more risk reduction sexts.

Differences in Sexting Content Based on Current Sexual Partners

Kruskal-Wallis Test results revealed statistically significant differences in sexting content based on number of

differences in sexting content based on number of current (past 30 days) sexual partners. Number of current sexual partners was categorized into groups including, virgin (no sexual partners in the last 30 days), 1 partner, 2 partners, 3 partners, 4 or more partners. Statistically significant differences were found in all three content areas: sexual images ($\chi^2(4, n=350)=25.246, p=.000$), sexual messages ($\chi^2(4, n=350)=11.257, p=.024$), and risk reduction sexts ($\chi^2(4, n=350)=13.197, p=.010$).

For sexual images, Mann-Whitney U Test post-hoc analysis confirmed differences were found in groups of zero current sexual partners and groups who are currently sexually active, with sexually active groups sexting more images. Additionally, differences were found between groups with one current sexual partner and two, with groups of two current sexual partners sexting more images. For sexual messages and risk reduction sexts, Mann-Whitney U Test post-hoc analysis found differences in groups with no current sexual partners and two current sexual partners, with the latter group sending more sexual messages and risk reduction sexts. Additionally, for risk reduction sexts, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with one current partner and groups with two current sexual partners, with groups of two current sexual partners sending more risk reduction sexts.

Differences in Sexting Content Based on Lifetime Sexual Partners

Kruskal-Wallis Test results revealed statistically significant differences in sexting content based on number of lifetime sexting partners. Number of lifetime sexual partners were categorized into groups including, virgin (no sexual partners), 1 partner, 2 partners, 3 partners, 4-8 partners, 9 or more partners. Statistically significant differences were found in all three content areas: sexual images ($\chi^2(5, n=350)=51.700, p=.000$), sexual messages ($\chi^2(5, n=350)=73.389, p=.000$), and risk reduction sexts ($\chi^2(5, n=350)=38.366, p=.000$).

Across all content (with one exception), Mann-Whitney U Test post-hoc analysis confirmed differences between groups with zero lifetime sexual partners (i.e., sexting virgins) and all groups who were not virgins, with non-virgins sending more sexual images, messages, and risk reduction sexts. The exception was for sexting virgins and groups with one lifetime sexual partner for sexual messages only. With the exception of two sexual partners and 4-8 sexual partners, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with one lifetime sexual partner and two or more lifetime sexual partners across all content, with groups of more than one lifetime sexual partner sending more sexual images, messages, and risk reduction sexts. For sexual images, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with nine or more lifetime sexual partners and three lifetime sexual partners, with groups of nine or more sending more sexual images. For sexual messages, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with 4-8 lifetime sexual partners and three sexual partners, with groups of 4-8 lifetime sexual partners sending more sexual messages.

Differences in Sexting Content Based on Current Sexual Partners

Kruskal-Wallis Test results revealed statistically significant differences in sexting content based on number of

current sexual partners. Number of current sexual partners was categorized into groups including, virgin (no sexual partners in the last 30 days), 1 partner, 2 partners, 3 partners, 4 or more partners. Statistically significant differences were found in all three content areas: sexual images ($\chi^2(4, n=350)=24.471, p=.000$), sexual messages ($\chi^2(4, n=350)=29.602, p=.000$), and risk reduction sexts ($\chi^2(4, n=350)=22.882, p=.000$).

Across all content, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with zero current sexual partners (i.e., those who have not sexted in the past 30 days) and groups with 1-3 current sexual partners, with groups of 1-3 current sexual partners sending more sexual images, messages, and risk reduction sexts. Additionally, for sexual images, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with four or more current sexting partners and zero current sexting partners, with groups with four or more current sexual partners sending more images. Additionally, for sexual messages, Mann-Whitney U Test post-hoc analysis confirmed differences between groups with two current sexual and one current sexual partner, with groups of two current sexual partners sending more sexual messages.

Correlation between Sexual Images, Sexual Messages, Risk Reduction Sexts, and Number of Sexual and Sexual Partners.

Spearman's Rho correlation coefficients were calculated to determine relationships among sexual images, sexual messages, risk reduction sexts, and number of sexual and sexual partners. Statistically significant relationships ranging from low to moderate correlations (.137 to .584 ($p<.01$)) were found for all subscales. The highest correlations were between current and total sexual partners ($\rho = .584$), lifetime sexual partners and lifetime sexual partners ($\rho = .569$), lifetime sexual partners and current sexual partners ($\rho = .507$), and between sexual messages and risk reduction sexts ($\rho = .505$). See Table 5 for more details.

Discussion

The majority of participants reported having ever sexted, which is on par with other research (AP-MTV, 2009; Hudson et al., 2014; Lenhart et al., 2010; Mitchell et al., 2012; The National Campaign, 2008). The frequency of sexters among this sample was slightly lower than similar research reported

Table 5.

Spearman's Rho (ρ) Among Sexual Images, Sexual Messages, Risk Reduction Sexts, and Lifetime & Current Sexual and Sexual Partners Subscales (n=469)

	Sexual Images	Sexual Messages	Risk Reduction Sexts	Lifetime Sexual Partners	Current Sexual Partners	Lifetime Sextual Partners	Current Sextual Partners
Sexual Images	1						
Sexual Messages	.443**	1					
Risk Reduction Sexts	.362**	.505**	1				
Lifetime Sexual Partners	.245**	.263**	.214**	1			
Current Sexual Partners	.264**	.165**	.137**	.584**	1		
Lifetime Sextual Partners	.375**	.450**	.314**	.569**	.432**	1	
Current Sextual Partners	.263**	.270**	.248**	.290**	.420**	.507**	1

* $p<.05$;
** $p<.01$

on sexting behaviors among undergraduates which have been 80% or higher. One possible reason could be that the mid-sized southern university is located in the heart of the “Bible belt” which is an environment that typically has more conservative views about sexual activity. Vazsonyi and Jenkins support the notion that religion exerts a certain amount of social control on sexual behaviors among emerging adults (Vazsonyi & Jenkins, 2010). Furthermore, the 73% sexters is slightly higher than the 65% of college students who reported sexting at another university in the southeastern United States; (Winkelman, Smith, Brinson, & Knox, 2014) although, the participants’ religiosity was not assessed.

Research by Hudson and Fetro (2015) supports the theoretical application of Azjen’s Theory of Reasoned Action and shows that intention to sext is a strong predictor of sexting behavior. For the participants in this study, most had high intentions to sext if they were married or if they were in a monogamous/committed relationship. This may explain why approximately one third of participants reported having at least one sexting partner currently because only one third reported being currently in a serious relationship. Being in a serious relationship is also important considering most participants who had ever sexted, reported sexting their significant other. An element of trust/confidentiality is desired for most young adults to sext.

Regarding the reasons for sexting, most reported sexting to be fun/flirtatious while many reported that they sent a sext simply in response to receiving one. The latter reason supports the notion that media users (or sexters in this case) are influenced in their behavior by their exposure to the media (sexts) as suggested by Collins, et al (2010) in their consideration of sexting within the framework of the Integrative Model of Behavior (Fishbein, 2000). Furthermore, the researchers of the present study suggest examining the psychological characteristic of impulsivity in relation to certain sexting behaviors considering many participants reported sexting at the prompt of receiving a sext.

While several studies have reported frequency of sexting, no studies were found to examine the content of the sext messages. In this study, the most common type of sext sent contained an image of the sender wearing only undergarments. For some this may be a provocative image; however, advertisers for brands of undergarments frequently display images of models wearing their merchandise. Sending topless/shirtless images was reported by majority of participants. This act may be perceived as less risqué given frequent exposure to such images in advertising/media more than showing one’s penis or vulva, which was reported by slightly less than half of participants. Even fewer participants reported sending a full-length image exposing one’s face along with the penis/vulva reported by around a quarter of participants, which may be viewed as the riskiest of all sexting behaviors. However, examining levels of perceived risk is beyond the scope of the present study; although the authors recommended that future research explore sexters’ perception of risk based on content.

Additionally, further analysis of sexting content was explored in relation to various demographics. With all three content areas (i.e., sexual images, sexual messages, and risk reduction sexts), participants were more likely to sext given the more current and lifetime sexual partners and current and lifetime sexual partners they had. Participants who had more sexting experience, or sextperience, and those who had more

than one current sexual partner were more likely to send risk reduction messages.

This study reveals a need for education regarding sexting to be incorporated in sexuality education courses across all ages where CMC is utilized. Most of the participants in this study were 18 and 19 years old. Given the amount of sexual partners reported in this study, the assumption that the likelihood of participant’s sexting as a minor is feasible. Since underage sexting is illegal, minors engaging in this behavior put themselves at risk for harsh legal consequences (such as possession and/or distribution of child pornography offenses), as well as social consequences (such as public shame, target for bullying, etc.). Given the potential for negative consequences associated with this behavior, underage sexting prevention is a relevant and necessary topic to address. Adolescents and emerging adults will benefit from lessons discussing what sexting is, what behaviors are considered sexting, the short and long-term consequences of sexting, and ways to refuse solicitation of sexts. Discussing the issues involved with sexting may help students avoid underage sexting or avoid negative consequences associated with sexting for those who are of age.

For those 18 and older, health educators can address how students can transform risky sexting into a healthy sextperience. A comprehensive discussion of sexting can help students avoid underage sexting (i.e. sexting as or with a minor), can help students avoid negative consequences that may be associated with sexting, and can help them use sexting to benefit their sexual health. Health educators can discuss with students ways in which sexting scenarios can be used for communicating about condom use and other forms of contraception and birth control, the necessity of STI and HIV testing prior to sexual activity, and partner history. In these scenarios, sexting can be used as a platform to reduce their risk of STIs and HIV. Discussion of potential short and long-term consequences associated with sexting, ways to reduce or avoid sexting, and ways to utilize sexting for sexual health promotion (i.e., using sexting to open a discussion regarding condom usage) are imperative lessons for students to learn in their sexuality education course.

Limitations

The sample size for this study exceeded the requirements for representativeness and that the sample consisted of students in a university required course; however, the study was limited to one university and was a sample of convenience. Generalizing this information is limited given the fairly homogeneous sample. The sample primarily consisted of White heterosexual freshman and sophomore undergraduate students.

Several limitations were noted for the survey. The survey instrument was 100 questions, making the instrument lengthy with an average time of 20-30 minutes for completion. Because of the length of the survey, a few failed to complete the survey. Additionally, even though steps were taken to reduce social desirability bias, the sensitive nature of the topic may have influenced participants’ responses given the conservative social climate of the South. Students who did not participate in any sexting behaviors were able to skip sections of questions. Even though students work at different paces, students could be fearful of judgment and decide not to be truthful on the survey. Lastly, the current study’s survey instrument only measured memory of sexting behaviors, not actual behaviors. Consequently, participants’ actual sexting behaviors may be slightly different

than their memory of their sexting.

Conclusion

In this study, sexters were more likely to sext in the context of a monogamous relationship. Examining the content of the sexts typically sent, most of the sexters had sent images of themselves wearing undergarments; most had sent a message about explicit sexual acts, and about half had sent a risk reduction message regarding contraception/condom use to their partner. Communication about sexual health is especially important since emerging adults are at the highest risk for STIs and unplanned pregnancy, with over a quarter of sexually active teens and young adults, ages 15-24, acquiring a STI. Additionally, research shows that nearly 10% of single (unmarried) women in their twenties have an unplanned pregnancy each year, and 55% of unplanned pregnancies occur to women in this same age group (The National Campaign, 2012). Sexting may be utilized to reduce risk of pregnancy and STIs and/or HIV by providing a platform to discuss these issues that they may not feel initially comfortable bringing up face-to-face. In conclusion, regardless of how risk reduction messages are delivered (i.e., via face-to-face or through CMC), the important point is that risk reduction measures are being taken. As a result, these risk reduction measures could promote sexual health and prevent unfavorable outcomes such as unplanned pregnancy, STIs, and/or HIV among this high-risk population.

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