



Does Sexting Enhance Relationship Satisfaction?

A Cross-sectional Study on the Relationship Between Trust, Sexting Behavior, and Sexual
and Relationship Satisfaction in Romantic Relationships.

Hanneke Heuvelmans

anr 526725

Master's Thesis

Communication and Information Sciences

Specialization Business Communication and Digital Media

Faculty of Humanities

Tilburg University, Tilburg

Supervisor: M. Vanden Abeele

Second reader: E.A.J. Croes

July 2017

Author Note

I would like to thank my supervisor M. Vanden Abeele for her thorough feedback and understanding during the thesis process. Additionally, I thank my second reader E.A.J. Croes for her useful feedback at the midpoint of the period. I am very thankful for all the participants who took a few minutes off to fill in the survey, and for the friends and family who helped sharing the survey with their connections for getting me 298 respondents within only one week. Finally, I thank my friends and family for their support during the period of writing my thesis.

Abstract

Sexting, the act of creating, sending, and receiving sexually suggestive messages via the mobile phone, has proven to be valuable in romantic relationships, since sexting can augment sexual satisfaction and, in turn, relationship satisfaction. The focus of this study was to investigate the relationship between trust in one's partner's confidential treatments of sexts, sexting behavior, sexual satisfaction, and relationship satisfaction. An online survey was conducted among young adults to test whether the frequency of their sexting behavior and the explicitness of their sexts predicted sexual satisfaction and whether sexual satisfaction, in turn, predicted relationship satisfaction. Additionally, we tested whether trusting the partner for not redistributing the sext predicted sexting behavior. As hypothesized, we found that sexting behavior indirectly predicted relationship satisfaction through sexual satisfaction. Trusting the partner for not redistributing the sext predicted sexting frequency and sexting explicitness. Finally, sexting frequency and explicitness mediated the relationship between trusting the partner for not redistributing the sext and sexual satisfaction. Our study suggests that sexting can have a positive effect on romantic relationships. However, trusting one's partner with the sexting content is an important antecedent.

Keywords: sexting, sexting frequency, sexting explicitness, sexual satisfaction, relationship satisfaction, trust

Introduction

Sexting has received negative attention in the media because of the risks involved. One such risk is that the recipients of sexts (i.e. sexually suggestive messages, pictures or videos) may redistribute private pictures to third parties without the initial sender's consent. Media reports show that such incidents of 'sexting gone bad' are often followed by harassment and sometimes even suicide (Walrave, Heirman, & Hallam, 2014). Given the risks involved, a substantial amount of academic research focuses on the negative outcomes of sexting, and how these can be prevented (Döring, 2014; Ferguson, 2011; Hasinoff & Shepherd, 2014).

However, sexting may also be beneficial. Parker, Blackburn, Perry, and Hawks (2013) found, for example, that sexting is a method to augment sexual satisfaction, and thus increases relationship satisfaction in a romantic relationship. Sexting, then, can be regarded as an approach that couples can use to express themselves sexually.

Sexting is in essence a form of texting, and we know from earlier research that texting enables romantic partners to stay intimately, and secretly in contact with each other during the day, recalling the writing of secret notes in class when they were in high school (Pettigrew, 2009). This secret activity can augment "flirtatious, idiosyncratic communication between romantic partners" (Pettigrew, 2009, p. 711). Besides the recalling of writing secret notes in class when individuals were in high school, sexting also recalls writing explicit love letters dating back to the past (Day, 2010). Therefore, research shows that sexting has great possibilities for romantic partners who want to boost their sexual satisfaction and their relationship satisfaction (Parker et al., 2013). Or as stated by Ross (2005), sexting is a "vehicle for intimacy" (p. 343).

To date, only few studies have examined the relationship between sexting and sexual satisfaction. Hence, a first aim of the current study is to examine whether there is a

relationship between sexting and sexual satisfaction and whether this latter satisfaction, in turn, relates to relationship satisfaction in romantic relationships (as found in the study of Parker et al. (2013)).

Previous studies show that the relationship between sexting and relationship satisfaction is complex, and that further research into underlying mechanisms is warranted (Byers, 2005; Currin, Jayne, Hammer, Brim, & Hubach, 2016; McDaniel and Drouin, 2015). For example, Parker et al. (2013) investigated sexting as a general concept. While they found that sexting affects relationship satisfaction, they did not examine *how* it affects relationship satisfaction. In the current study, we therefore, consider the role of sexting frequency and the explicitness of sexts. As for the first, given that more frequent sex leads to a better sexual satisfaction (Perlman & Abramson, 1982), and that sexting is a form of flirtation and an alternative for foreplay (Benotsch, Snipes, Martin, & Bull, 2012; Drouin & Tobin, 2014), more frequent sexting might affect sexual satisfaction. As for sexting explicitness, this is related to intimacy in a relationship. Individuals who are in a more intimate relationship share more explicit sexting content (Weisskirch & Delevi, 2011). Given the link between intimacy and sexual satisfaction, we might expect that sexting explicitness increases sexual satisfaction. Thus, to further our understanding of what aspects of sexting contribute to sexual and relationship satisfaction, we devote additional attention to the nature of the sexting behavior, both in terms of its frequency and its explicitness.

Sexting is often identified as a risky practice because of the negative consequences that may occur when one's sexts become redistributed (Walrave et al., 2014). A relevant factor in sexting behavior between romantic partners is the trust that people have in their romantic partner to treat the sender's sexts confidentially. It seems logical that trust needs to be high before an individual chooses to send a message with sexual content.

We may assume that, in relationships characterized by low levels of trust, partners are hesitant to send sexual messages frequently or to send explicit content because of the fear that the recipient may redistribute the sext. Hence, a second aim of the current study is to examine whether the *level of trust in one's partner's confidential treatment of sexts* affects the sexting behavior between romantic partners. We presume that when trust in the romantic partner is high, people will sext more frequently and send more explicit content. This sexting behavior will then affect sexual satisfaction, which in turn affects relationship satisfaction.

We test the aforementioned relationships by drawing from the results of a cross-sectional survey administered to 298 young adults who are in a romantic relationship.

Theoretical framework

Sexting

“Sexting” is an abbreviation of “sex-texting”. Definitions of the practice vary per study. The definition of Crimmins and Seigfried-Spellar (2014) states for example that sexting is “the act of sending suggestive messages or photos via cell phone, e-mail, or any other form of technology” (p. 268), whereas Weisskirch and Delevi (2011) define sexting as “individuals create, send, and receive sexually suggestive or nude images and/ or sexually suggestive text messages using their cell phones” (p.1697). As one can see, the first definition only focuses on sending, the latter also includes receiving suggestive messages.

Sexting is usually linked to the use of mobile phones. This is because mobile phones are considered to be more trustworthy technologies when individuals share sexually suggestive digital images or videos of themselves, and because of the one-to-one nature of the operation (Zemmels & Khey, 2015). In the current study, we choose to focus on sexting via mobile phone only. Therefore, the working definition of sexting in the current study is:

Sexting is the act of creating, sending, and receiving sexually suggestive or (semi) nude images and/ or sexually suggestive messages via the mobile phone.

Sexual intimacy and relationship satisfaction

A first aim of the current study is to examine whether sexting, via its relationship with sexual satisfaction, is related to relationship satisfaction. Relationship satisfaction refers to the extent to which a person is content and satisfied within a relationship (Anderson & Emmers-Sommer, 2006, p. 155). Additionally, it can indicate relationship length and prosperity in romantic/intimate relationships. Thus relationship satisfaction represents how happy individuals are in their relationship; it tells something about the quality of the relationship.

Sexual satisfaction is defined by Santtila et al. (2007) as the congruence between the desired and actual frequency of sex, and defined by Sprecher (2002) as the balance between giving and taking. Sexual satisfaction correlates with relationship satisfaction in a romantic relationship: the more satisfaction there is in romantic partners' sex life, the more satisfaction there appears to be in the relationship (Byers, 2005; Kilser & Christopher, 2008; Sprecher, 2002; Yeh, Lorenz, Wickrama, Conger, & Elder, 2006). Disagreement exists on the causality of the relationship. Yeh et al. (2006) found a causal direction between sexual satisfaction and marital quality, in this case. Most studies, however, suggest a bidirectional relationship (Byers, 2005; Sprecher, 2002): When sexual intimacy in a relationship is good, individuals feel more satisfied about their relationship, and when individuals feel satisfied about their relationship, their sexual intimacy augments.

One of the reasons why sexual satisfaction predicts relationship satisfaction is that it can compensate for negative events in a romantic relationship. When, for example, communication between partners is poor, sexual satisfaction can compensate for this and, in

turn, enhances relationship satisfaction (Litzinger & Gordon, 2005). This finding shows the importance of sexual satisfaction in a romantic relationship.

A first aim of the current study is to replicate extant studies on the relationship between sexual satisfaction and relationship satisfaction:

H1: When a person's sexual satisfaction on the relationship is higher, his/her relationship satisfaction will also be higher.

Sexting and relationship satisfaction

As mentioned in the introduction, sexting is considered as a method to augment sexual satisfaction (Parker et al., 2013). And if sexual satisfaction is related to relationship satisfaction we might presume that sending suggestive messages, nude or semi-nude photos are, indirectly, also positively related to relationship satisfaction. Indeed, previous studies found evidence for a relationship between sexting and relationship satisfaction (Currin et al., 2016; McDaniel & Drouin, 2015).

The relationship between sexting and relationship satisfaction appears to be complex. For example, in their study among married couples, McDaniel and Drouin (2015) found that attachment style and gender moderated sexting behavior and relationship satisfaction. In the study of Currin et al. (2016), the reciprocity of sexting behavior in the relationship was found to play a role. The current study wishes to add to these studies by not investigating sexting as a general concept, but to focus on two particular aspects of sexting behavior: sexting frequency and the explicitness of the content that is (usually) sent.

Sexting frequency

Studies show that sexting is a method to augment sexual satisfaction, and that, given the relationship between sexual satisfaction and relationship satisfaction, sexting may thus indirectly affect relationship satisfaction (Currin et al., 2016; McDaniel & Drouin, 2015). A focus point in the current study is the *frequency* of sexting. Studies show that the frequency of sex correlates with sexual satisfaction: the more frequent partners have sex, the higher sexual satisfaction is (Perlman & Abramson, 1982). Additionally, individuals are satisfied when the desired frequency of sex is in line with the actual frequency of sex. In general, most individuals desire frequent sex in their relationship (Santtila et al., 2007). Therefore, we might expect that a higher frequency of sex in a relationship leads to a better sexual satisfaction and thus relationship satisfaction.

Sexting may increase offline sexual behavior. After all, sexting is a strategy for flirtation, an alternative for foreplay, a way to meet partner's desires, and a hint for intimacy (Benotsch et al., 2012; Drouin & Tobin, 2014). More frequent sexting thus leads to more frequent flirting, foreplay and intimacy, which, in turn, may lead to more frequent sex. Thus, we could assume that more frequent sexting generates more frequent sexual activity, which apparently causes a higher sexual satisfaction. The latter sexual satisfaction, in turn, leads to higher relationship satisfaction. We therefore expect:

H2a: When sexting frequency is higher, sexual satisfaction will also be higher.

H2b: Sexual satisfaction mediates the relationship between sexting frequency and relationship satisfaction.

Explicit content

The explicitness of the sexting content may also play a role. The most common type of sexting is sending “sex texts” with no pictures or videos included. When not solely sending sex texts, individuals are inclined to send nearly nude and sexually suggestive but clothed photos or videos rather than fully nude photos or videos (Drouin, Vogel, Surbey, & Stills, 2013). Thus, most persons tend to send ‘moderately’ suggestive sexts.

It would be logical to assume that explicitness of the content reflects the sexual intimacy in a romantic relationship. This sexual intimacy likely relates to sexual satisfaction. One of the most important features of intimacy predicting relationship satisfaction is sexual intimacy (Yoo, Bartle-Haring, Day, & Gangamma, 2014). Individuals who are in a more intimate relationship are more inclined to send more explicit content than individuals in a casual relationship (Weisskirch & Delevi, 2011). Therefore, it would be logical to assume that explicitness of the content is related to sexual intimacy. Thus, more explicit content means more sexually intimate, leading to a better sexual satisfaction and in turn relationship satisfaction.

H3a: When more explicit content is shared, sexual satisfaction will be higher.

H3b: Sexual satisfaction mediates the relationship between sexting explicitness and relationship satisfaction.

Trust in one’s partner’s confidential treatment of sexts

Sexting is generally recognized as a risky practice because of the negative consequences that may occur when one’s sexts become redistributed. Therefore, an essential factor in sexting behavior between romantic partners is the trust one has in his/her romantic partner. Trust in a romantic relationship can be defined as believing that the other person is

“benevolent and honest” (Larzelere & Huston, 1980, p. 596). In the context of sexting this means that individuals trust the partner for being kind about the sexual and personal content being shared and for being honest about not redistributing the sexts.

Sexting behavior, both in terms of its frequency, and its explicitness, may be different when people trust their partner more or less. Circumstantial evidence for this assumption can be found in research on sexting risk perceptions among people in a casual versus in a committed relationship. Key features of committed relationships are trust and intimacy (Rempel, Holmes, & Zanna, 1985). These key features are usually absent in casual sexual relationships. This absence of trust and intimacy in casual relationships is reflected in casual partners’ sexting attitudes. Individuals in casual relationships fear that their sexting pictures and/or videos will be forwarded double as much as individuals in committed relationships (Drouin et al., 2013). This fear seems grounded: in Drouin et al.’s (2013) study, 15% of individuals who were in a casual sex relationship and 21% who were cheating on their partner reported that they had forwarded the photos and/or videos their casual sex partner or cheating partner sent them. Individuals in committed relationship (in which trust is usually high (cf. Rempel et al., 1985)), on the other hand, were less fearful of their sexts being redistributed, and were found to sext more frequently with their partners than individuals with casual sex partners or cheating partners (Drouin et al., 2013).

Hence, based on the above, we expect that when there is a high level of trusting the partner for not redistributing the sext, sexting frequency will be higher.

H4a: When there is a higher level of trust in the partner for not redistributing one’s sexts, sexting frequency will be higher.

When considering the sexting behavior of people in various relationship types, people in committed relationships overall send the most explicit content to each other (Drouin et al., 2013). Thus, relationship type also seems to influence the explicitness of sexting. This can be explained by the fact that intimate self-disclosure is a key component of high-trusting relationships (Rempel et al., 1985), and more explicit forms of sexting can be considered as more intimate forms of (sexual) self-disclosure (Bobkowski, Brown, & Neffa, 2012). In the study of Bobkowski et al. (2012), however, it was found that people in casual sex relationships sexually disclose more on their MySpace profiles than people in committed relationships. Nevertheless, the current study investigates sexting behavior through private mobile phone applications. Hence, a high level of trusting the partner for not redistributing the sexts is expected to predict the sending of more explicit content.

H4b: When there is a higher level of trust in the partner for not redistributing sexts, individuals are more likely to share more explicit content.

Trust is not only an important factor in sexting. Trust is also closely tied to relationship satisfaction. Existing research is consistent in that trust is closely related to the success of a romantic relationship and relationship satisfaction (Anderson & Emmers-Sommer, 2006; Larzelere & Huston, 1980; Rempel et al., 1985). Therefore, it seems logical to assume that trust might affect relationship satisfaction directly, but also indirectly via its relationship to sexting behavior, and, in turn, sexual satisfaction.

H4c: Sexting frequency and sexting explicitness mediate the relationship between trusting the partner for not redistributing the sext and sexual satisfaction.

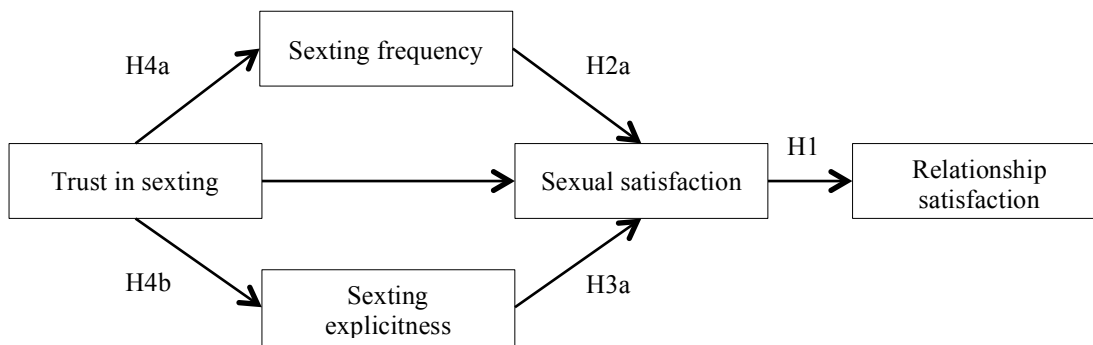


Figure 1. Research model. Sexting predicts relationship satisfaction. The level of trust is related to sexting behavior.

Method

The purpose of this study was to investigate the relationship between trust, sexting behavior, sexual satisfaction, and relationship satisfaction. An online survey was conducted to test the hypotheses.

Sample

Participants that took part in the survey had to be in a committed relationship. A total of 298 participants in a committed relationship filled in the survey. Participants had an average age of 24.23 years ($SD = 2.92$; $Min = 18$, $Max = 30$). About three in four (74.2 %) participants were female ($n = 221$). The majority of participants, 96.2%, identified themselves as heterosexual ($n = 276$), the remaining 4% were homosexual ($n = 12$) and 3.4% ($n = 10$) were bisexual.¹ One in four (23.5%) indicated that they were in the relationship for more than five years. About half of the sample (45.3%) indicated that they saw their partner daily.

¹ When analyzing the data, the sexual orientation variable was computed into a binary variable (1 = heterosexual, 2 = homo- or bisexual).

Measures

Sexting frequency. Sexting frequency was measured with one item: “With your current relationship partner, how often do you engage in sexting?” on a scale from 1 (never) to 7 (several times a day).

Explicitness. Content explicitness was measured by asking participants for eight different types of content varying in explicitness whether they send such content to their partner. First, a pretest of the list was performed to make sure that the different contents indeed represented a rank-ordered scale from low explicitness to high explicitness. This was done by asking nine participants to rank order ten types of messages from the studies of Parker et al. (2013) and Drouin et al. (2013) from least to most explicit. For two types of content, there appeared to be disagreement between the nine pretest participants. The other eight, however, were rank-ordered identically across all participants. Hence, these eight were retained for the study.

Table 1 displays the types of messages being included in the study that resulted from the pretest. In the survey, participants were asked to indicate whether they send those types of messages to their partner “yes” or “no”. For each type of message the percentage of participants that indicated “yes” is displayed. As can be seen from the table, for most message types the more explicit the content, the lesser percentages indicated “yes”.

Table 1

Message types from least to most explicit and the percentage of participants that said “yes”

Message type	%
Small talk, discussing how the day has been	98.7%
Romantic messages, “I want to see u”	95.6%
Double entendre about sex related topics	83.6%
Sexually suggestive photos or videos (e.g., cleavage showing or muscles), but clothed	40.6%
Explicit language about sex acts	56.0%
Nearly nude photos or videos (e.g., in underwear)	35.2%
Nude photos or videos	16.1%
Nude photos or videos where genitals are explicitly visible	10.1%

To calculate a ‘content explicitness’ score for each participant, we followed an incremental approach, whereby a person’s score becomes incrementally higher when he/she shares more explicit content with the partner. To that end, we assigned points to each type of content (i.e., “small talk, discussing how the day has been” equals 1 point, “Nude photos or videos where genitals are explicitly visible” equals 8 points). A participant was awarded the points every time he/she indicated “yes”. For reasons of comprehensibility, a mean variable of the eight ‘point-variables’ was computed. Participants’ scores thus range between 1 (low explicitness) and 8 (high explicitness). However, these scores should not be interpreted on the rank order-scale.

Relationship satisfaction. The 7-item relationship assessment scale from the study of Hendrick (1988) was used to measure relationship satisfaction with 7 items. The response categories in the original scale did not always match well with the questions asked (e.g., the original scale contains statements starting with “how frequently” that require a response “not at all – totally satisfied”). Hence, for this study we changed the questions into statements that participants rated on a 7 point Likert scale ranging from 1 (very strongly disagree) to 7 (very

strongly agree): “a) My partner meets my needs, b) I am satisfied with my relationship, c) My relationship is good compared to most, d) I often wish I hadn’t gotten into this relationship, e) My relationship meets my original expectations, f) I love my partner, g) There are a lot of problems in my relationship”. Item D and G were recoded and the scale had a Cronbach’s alpha of .84.

Sexual satisfaction. Participants responded to the question “Overall, how would you describe your sexual relationship with your partner?” in five separate ways to measure sexual satisfaction ($\alpha = .96$). The response items were 1 (very good) to 7 (very bad), 1 (very pleasant) to 7 (very unpleasant), 1 (very positive) to 7 (very negative), 1 (very satisfying) to 7 (very unsatisfying), and 1 (very valuable) to 7 (very worthless) (Kisler & Christopher, 2008). When analyzing the data, all items were recoded.

Pleasure in sex. Pleasure in sex was added to the survey as a control variable, because previous studies found that people sext more when they enjoy sex in general (Ferguson, 2011). The scale of the study of Ferguson (2011) was used, however two items were left out because they could scare participants off, as they were too much in detail about sexual behavior for this study. The five remaining items were rated on a scale from 1 (never true) to 7 (always true): “a) I regularly find sexual behavior (from kissing to intercourse) pleasurable, b) I like the feeling of sex whether I orgasm or not, c) I believe that I have a healthy appetite for sex, d) I look forward to sexual behavior (from kissing to intercourse), e) Sexual behavior (from kissing to intercourse) is a fun and enjoyable activity” ($\alpha = .90$).

Trust in the partner for not redistributing the sexts. In order to measure how much participants trust their partner for not redistributing the sexts, we included a trust-measure that was self-constructed, but based on the trust scale for the study of Larzele and Huston (1980). Participants were asked to respond to two statements on a 7 point scale ranging from 1 (strongly disagree) to 7 (strongly agree): “I can count on my partner for not redistributing my

sexts to other people” and “I trust my partner for not showing my sexts to others”. The scale had a Cronbach’s alpha of .90.

Procedure

Participants were recruited via network and snowball sampling. Facebook and WhatsApp were used for asking participants to take part in the online survey through Qualtrics. By clicking on the link, participants were directed to the survey and were provided with an explanation. Then they were asked whether they were in a relationship. When indicating “no” they were directed to the end of the survey. The participants who were in a relationship started the survey. Given that sexting can include various sorts of content and can be transmitted through various ways of communication it was important that all participants had the same idea of what sexting is. Therefore, a clear definition of sexting was given: “Sexting is the act of creating, sending, and receiving sexually suggestive or (semi) nude images and/ or sexually suggestive messages via the mobile phone”.

Results

Before we address the hypotheses, we first give some brief general information about the sample and the reported sexting behaviors, followed by a preliminary analysis of the relationships examined via a correlation analysis. Next, we test the hypotheses using multiple regression analysis and mediation analysis.

Descriptive statistics

Of the 298 participants, 66.8% ($n = 199$) indicated that they sext at least once a year. Of these participants, most sext on a monthly (18.1%, $n = 54$) or weekly (18.1%, $n = 54$) basis.

There was no gender difference in terms of sexting behavior: 70.1% ($n = 54$) of the male and 65.6% ($n = 145$) of the female participants engage in sexting, $\chi^2(1) = .53, p = .468$. Sexting seems more typical for younger relationships: 78.4% ($n = 29$) of participants with a relationship shorter than a half year indicated that they engage in sexting, whereas 58.6% ($n = 41$) of participants with a relationship longer than five years indicated that they engage in sexting.

Table 2 presents z-scores of skewness and kurtosis of all dependent variables. Most scales are not normally distributed according to the z-scores. Therefore, results need to be interpreted with caution. The bootstrapping technique was applied when performing the multiple regression analysis.

Table 2

z-scores of skewness and kurtosis

	z-score Skewness	z-score Kurtosis
Sexting frequency	1.19	4.57
Sexting explicitness	6.57	-.29
Sexual satisfaction	-13.37	13.11
Relationship satisfaction	-11.12	10.09

Correlation analysis

As can be seen from table 3, there was a significant positive relationship between *sexual satisfaction* and *relationship satisfaction*, $r = .46, p < .001$. There was also a significant positive relationship between *sexting frequency* and *sexual satisfaction*, $r = .15, p = .008$, and between *sexting explicitness* and *sexual satisfaction*, $r = .12, p = .036$. A significant positive relationship was found between *trusting the partner in sexting* and *sexting frequency*, $r = .14$,

$p = .016$. Also the relationship between *trusting the partner in sexting* and *sexting explicitness* was significant, $r = .13$, $p = .021$. Table 3 presents means, standard deviations and correlations of all variables.

Table 3

Means, standard deviations and correlations of all variables

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.
1. Trust in sexting	6.53	0.77	-				
2. Sexting frequency	2.90	1.63	.14*	-			
3. Sexting explicitness	1.94	1.22	.13*	.50**	-		
4. Sexual satisfaction	6.02	1.23	.06	.15**	.12*	-	
5. Relationship satisfaction	6.14	0.84	.17**	.02	-.01	.46**	-

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

Hypotheses testing

The first hypothesis stated that when *sexual satisfaction* is higher, *relationship satisfaction* is higher. In order to test the hypothesis a multiple regression was performed. In the first step the control variables *gender*, *sexual orientation*, *age*, *relationship length*, and *pleasure in sex* were entered (using forced entry). This model explained 9.9% of the variance, $F(5, 292) = 6.43$, $p < .001$. In the second step *sexual satisfaction* was entered, after which the model explained 24.6% of the variance, $F(6, 291) = 15.81$, $p < .001$. *Sexual satisfaction* significantly predicted *relationship satisfaction*, $b = .30$ [0.19, 0.43], $\beta = .44$, $p = .001$. When sexual satisfaction was higher, relationship satisfaction was also higher (see Table 4).

Table 4

Linear model of control variables and sexual satisfaction as predictors of relationship satisfaction

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	4.81 (3.67, 5.84)	.58		<i>p</i> = .001
Gender	.23 (0.02, 0.47)	.11	.12	<i>p</i> = .035
Sexual orientation	-.04 (-0.37, 0.30)	.17	-.01	<i>p</i> = .799
Age	-.02 (-0.06, 0.01)	.02	-.08	<i>p</i> = .200
Relationship length	.05 (0.01, 0.10)	.02	.13	<i>p</i> = .032
Pleasure in sex	.23 (0.14, 0.33)	.05	.44	<i>p</i> = .001
Step 2				
Constant	3.20 (1.99, 4.38)	.62		<i>p</i> = .001
Gender	.14 (-0.05, 0.34)	.10	.07	<i>p</i> = .181
Sexual orientation	.11 (-0.21, 0.42)	.16	.03	<i>p</i> = .511
Age	-.00 (-0.04, 0.03)	.02	-.01	<i>p</i> = .867
Relationship length	.06 (0.02, 0.11)	.02	.16	<i>p</i> = .008
Pleasure in sex	.10 (0.00, 0.19)	.05	.15	<i>p</i> = .048
Sexual satisfaction	.30 (0.19, 0.43)	.06	.44	<i>p</i> = .001

Note. $R^2 = .10$ for Step 1; $\Delta R^2 = .15$ for Step 2 ($p < .001$).

Gender: male = 1, female = 2; Sexual orientation: 1 = heterosexual, 2 = homo- or bisexual
95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors based on 1000 bootstrap samples

Hypotheses 2a and 3a stated that when sexting frequency is higher and when more explicit content is shared, sexual satisfaction will be higher. To test these hypotheses, a second multiple regression analysis was performed. In step 1, the control variables were entered, this model explained 22.6% of the variance, $F(5, 292) = 17.02$, $p < .001$. In step 2, the predictors *sexting frequency* and *sexting explicitness* were added, after which the model

explained 23.2% of the variance, $F(7, 290) = 12.51, p < .001$, which is only a slight change compared to the first step. There was no significant effect of *sexting frequency*, $b = .07 [-0.01, .15], \beta = .09, p = .129$, and *sexting explicitness*, $b = -.01 [-.13, .11], \beta = -.02, p = .832$, on *sexual satisfaction*. This was not due to multicollinearity between the items (see Table 5).

Table 5

Linear model of control variables and sexting frequency and sexting explicitness as predictors of sexual satisfaction

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	5.40 (3.72, 7.08)	.94		$p = .001$
Gender	.30 (-0.04, 0.64)	.16	.11	$p = .073$
Sexual orientation	-.51 (-1.37, 0.21)	.38	-.11	$p = .188$
Age	-.07 (-0.12, -0.02)	.02	-.17	$p = .007$
Relationship length	-.04 (-0.10, 0.03)	.04	-.06	$p = .295$
Pleasure in sex	.44 (0.28, 0.58)	.08	.42	$p = .001$
Step 2				
Constant	5.29 (3.57, 6.96)	.95		$p = .001$
Gender	.28 (-0.05, 0.63)	.17	.10	$p = .097$
Sexual orientation	-.57 (-1.41, 0.15)	.38	-.12	$p = .137$
Age	-.07 (-0.12, -0.02)	.02	-.17	$p = .006$
Relationship length	-.03 (-0.10, 0.04)	.04	-.05	$p = .416$
Pleasure in sex	.43 (0.27, 0.57)	.07	.42	$p = .001$
Sexting frequency	.07 (-0.01, 0.15)	.04	.09	$p = .129$
Sexting explicitness	-.01 (-0.13, 0.11)	.06	-.02	$p = .832$

Note. $R^2 = .23$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($p = .306$).

Gender: male = 1, female = 2; Sexual orientation: 1 = heterosexual, 2 = homo- or bisexual
95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors based on 1000 bootstrap samples

Table 5 shows that *pleasure in sex*, $b = .43$ [.27, .57], $\beta = .42$, $p = .001$, was a better predictor of *sexual satisfaction*. Therefore, a third multiple regression was performed. In step 1 the control variables *gender*, *sexual orientation*, *age*, and *relationship length* were entered. This model explained 7.4% of the variance, $F(4, 293) = 5.83$, $p < .001$. In step 2 *sexting frequency* and *sexting explicitness* were added, after which the model explained 8.8% of the variance, $F(6, 291) = 5.67$, $p < .001$. In step 3 *pleasure in sex* was added, after which the model explained 23.2% of the variance, $F(7, 290) = 12.51$, $p < .001$. There was no significant effect of *sexting frequency*, $b = .08$ [-0.03, 0.18], $\beta = .10$, $p = .10$, and *sexting explicitness*, $b = .04$ [-0.09, 0.16], $\beta = .04$, $p = .571$, on *sexual satisfaction*. A significant effect was found of *pleasure in sex*, $b = .43$ [0.28, 0.58], $\beta = .42$, $p = .001$, on *sexual satisfaction*. When individuals in general enjoyed sex better, their sexual satisfaction was also better (see Table 6).

Table 6

Linear model of control variables and sexting frequency, sexting explicitness and pleasure in sex as predictors of sexual satisfaction

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	7.94 (6.38, 9.57)	.86		$p = .001$
Gender	.11 (-0.21, 0.43)	.17	.04	$p = .549$
Sexual orientation	-.42 (-1.22, 0.30)	.37	-.09	$p = .250$
Age	-.05 (-0.10, 0.01)	.03	-.11	$p = .088$
Relationship length	-.12 (-0.18, -0.06)	.03	-.21	$p = .002$
Step 2				
Constant	7.62 (6.12, 9.29)	.87		$p = .001$
Gender	.11 (-0.23, 0.44)	.17	.04	$p = .562$

Sexual orientation	-.52 (-1.32, 0.21)	.36	-.11	$p = .140$
Age	-.05 (-0.10, 0.01)	.03	-.11	$p = .093$
Relationship length	-.10 (-0.17, -0.04)	.03	-.17	$p = .004$
Sexting frequency	.08 (-0.03, 0.18)	.05	.10	$p = .096$
Sexting explicitness	.04 (-0.09, 0.16)	.06	.04	$p = .571$
Step 3				
Constant	5.29 (3.65, 6.96)	.94		$p = .001$
Gender	.28 (-0.09, 0.64)	.17	.10	$p = .106$
Sexual orientation	-.57 (-1.40, 0.08)	.36	-.12	$p = .098$
Age	-.07 (-0.12, -0.02)	.02	-.16	$p = .008$
Relationship length	-.03 (-0.09, 0.04)	.03	-.05	$p = .404$
Sexting frequency	.07 (-0.03, 0.15)	.04	.09	$p = .134$
Sexting explicitness	-.01 (-0.13, 0.11)	.06	-.01	$p = .833$
Pleasure in sex	.43 (0.28, 0.58)	.07	.42	$p = .001$

Note. $R^2 = .07$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($p = .105$); $\Delta R^2 = .14$ for Step 3 ($p < .001$).

Gender: male = 1, female = 2; Sexual orientation: 1 = heterosexual, 2 = homo- or bisexual
95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors based on 1000 bootstrap samples

In order to test the hypotheses with respect to *trusting the partner for not redistributing the sexts* and sexting behavior (H4a and H4b) two multiple regression analyses were performed. To test whether *trusting the partner for not redistributing the sext* predicted *sexting frequency*, first the control variables were entered in step 1. This explained 9.2% of the variance, $F(5, 292) = 5.90, p < .001$. In step 2 *trust in sexting* was added, after which the model explained 10.4% of the variance, $F(6, 291) = 5.65, p < .001$. The model shows that when *trust in the partner for not redistributing the sexts* was higher, *sexting frequency* was also significantly higher, $b = .24 [0.01, 0.42], \beta = .11, p = .019$ (see Table 7).

Table 7

Linear model of control variables and trusting the partner for not redistributing the sext as predictors of sexting frequency

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	2.04 (-0.30, 4.34)	1.08		<i>P</i> = .058
Gender	.19 (-0.21, 0.63)	.20	.05	<i>P</i> = .349
Sexual orientation	1.01 (0.38, 1.63)	.32	.16	<i>P</i> = .002
Age	-.03 (-0.09, 0.03)	.03	-.06	<i>P</i> = .334
Relationship length	-.14 (-0.23, -0.05)	.05	-.18	<i>P</i> = .005
Pleasure in sex	.13 (-0.03, 0.29)	.08	.10	<i>P</i> = .097
Step 2				
Constant	.57 (-2.21, 3.25)	1.29		<i>P</i> = .635
Gender	.16 (-0.24, 0.61)	.20	.04	<i>P</i> = .417
Sexual orientation	1.00 (0.37, 1.65)	.31	.16	<i>P</i> = .001
Age	-.03 (-0.09, 0.04)	.03	-.05	<i>P</i> = .412
Relationship length	-.14 (-0.24, -0.06)	.05	-.19	<i>P</i> = .002
Pleasure in sex	.11 (-0.06, 0.26)	.08	.08	<i>P</i> = .192
Trust in sexting	.24 (0.01, 0.42)	.11	.11	<i>P</i> = .019

Note. $R^2 = .09$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($p = .044$).

Gender: male = 1, female = 2; Sexual orientation: 1 = heterosexual, 2 = homo- or bisexual
95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors based on 1000 bootstrap samples

To test whether *trusting the partner for not redistributing the sext* predicts *sexting explicitness* another multiple regression was performed by entering the control variables in step 1. This explained 10.2% of the variance, $F(5, 292) = 6.65, p < .001$. In step 2 *trust in sexting* was added, after which the model explained 11.3% of the variance, $F(6, 291) = 6.21, p < .001$. There was a significant relationship between *trusting the partner in sexting* and

sexting explicitness, $b = .17$ [0.03, 0.32], $\beta = .11$, $p = .018$. When trusting the partner for not redistributing the sexts was higher, the content being sent was also more explicit (see Table 8).

Table 8

Linear model of control variables and trusting the partner for not redistributing the sext as predictors of sexting explicitness

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	1.78 (0.16, 3.32)	.81		$P = .026$
Gender	-.21 (-0.55, 0.15)	.17	-.08	$P = .230$
Sexual orientation	.38 (-0.16, 0.92)	.28	.08	$P = .175$
Age	-.02 (-0.07, 0.03)	.02	-.05	$P = .457$
Relationship length	-.11 (-0.18, -0.04)	.04	-.19	$P = .006$
Pleasure in sex	.15 (0.03, 0.25)	.06	.14	$P = .013$
Step 2				
Constant	.75 (-1.30, 2.67)	.89		$P = .377$
Gender	-.23 (-0.57, 0.14)	.17	-.08	$P = .194$
Sexual orientation	.37 (-0.19, 0.93)	.29	.08	$P = .183$
Age	-.02 (-0.06, 0.03)	.02	-.04	$P = .540$
Relationship length	-.11 (-0.18, -0.04)	.04	-.19	$P = .004$
Pleasure in sex	.12 (0.00, 0.23)	.06	.12	$P = .030$
Trust in sexting	.17 (0.03, 0.32)	.07	.11	$P = .018$

Note. $R^2 = .10$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($p = .057$).

Gender: male = 1, female = 2; Sexual orientation: 1 = heterosexual, 2 = homo- or bisexual
95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors based on 1000 bootstrap samples

Mediation analysis

Results of the multiple regression analysis show that *sexual satisfaction* is a predictor of *relationship satisfaction*. Hypotheses H2b and H3b stated that sexting would indirectly affect *relationship satisfaction* through *sexual satisfaction*. Therefore, mediation analyses were performed by using the program PROCESS. First, the mediating effect of *sexual satisfaction* between *sexting frequency* and *relationship satisfaction* was tested. There was a significant indirect effect of *sexting frequency* on *relationship satisfaction* through *sexual satisfaction*, $b = .04$, BCa CI [0.01, 0.08] (see Figure 2).

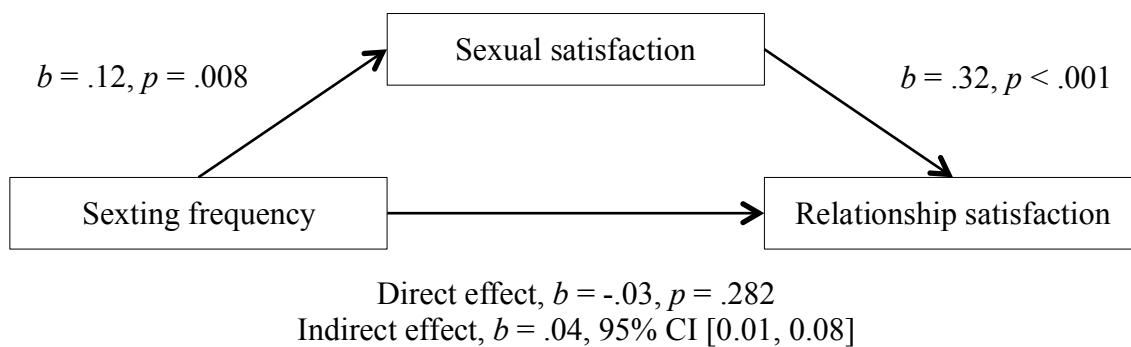


Figure 2. Model of sexting frequency as a predictor of relationship satisfaction, mediated by sexual satisfaction.

Another mediation analysis was performed with *sexual satisfaction* being the mediator between *sexting explicitness* and *relationship satisfaction*. There was a significant indirect effect of *sexting explicitness* on *relationship satisfaction* through *sexual satisfaction*, $b = .04$, BCa CI [0.00, 0.09] (see Figure 3).

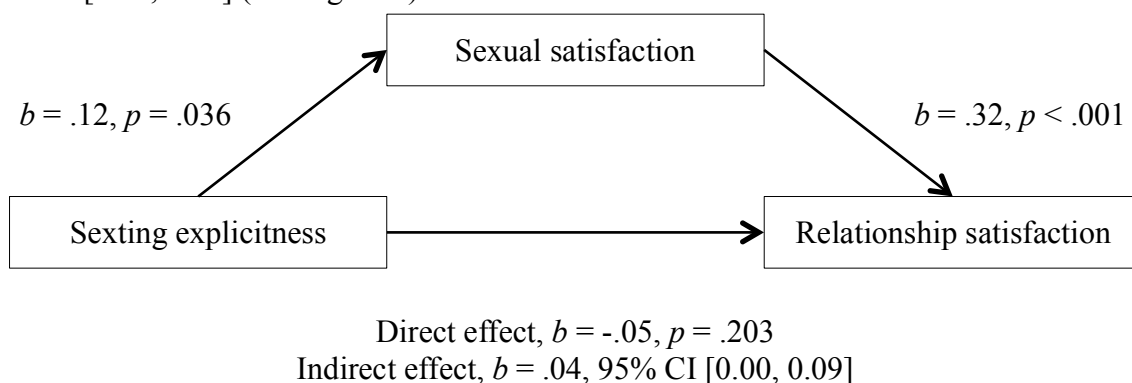


Figure 3. Model of sexting explicitness as a predictor of relationship satisfaction, mediated by sexual satisfaction.

In order to test the mediating effect of *sexting frequency* and *sexting explicitness* between *trust in sexting* and *sexual satisfaction*, a multiple mediation analysis was performed with *trusting the partner for not redistributing the sexts* as a predictor. There was a significant total indirect effect of *trust in sexting* on *sexual satisfaction* through *sexting frequency* and *sexting explicitness*, $b = .03$, BCa CI [0.00, 0.10]. An indirect effect was found between *trust in sexting* and *sexual satisfaction* through *sexting frequency* solely, $b = .03$, BCa CI [0.00, 0.08]. The more trust there was that the partner does not redistribute the sext, the more frequent one sexted and the better sexual satisfaction was. There was no significant indirect effect of *trust in sexting* on *sexual satisfaction* through *sexting explicitness*, $b = .01$, BCa CI [-0.01, 0.05] (see Figure 4).

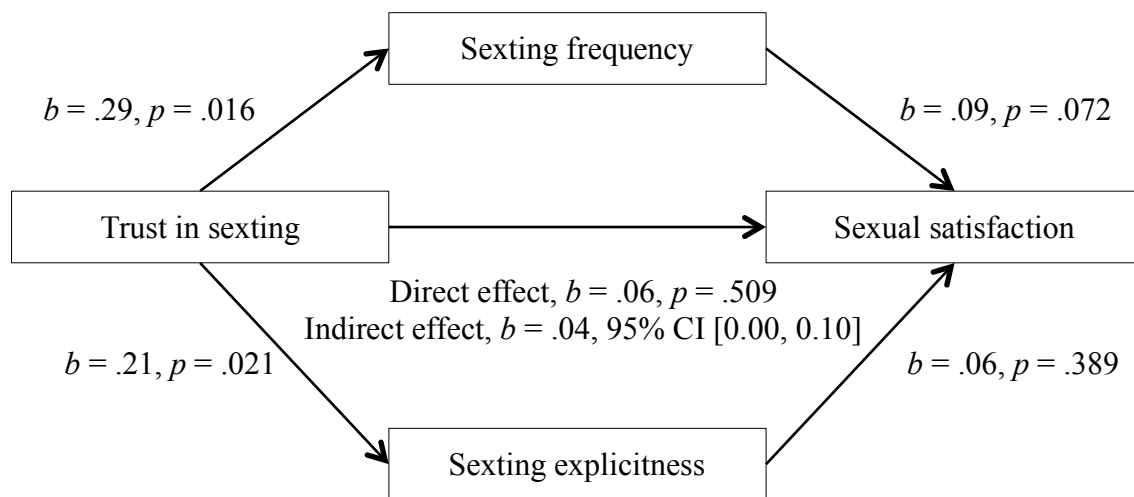


Figure 4. Model of trust in sexting as a predictor of sexual satisfaction, mediated by sexting frequency and sexting explicitness.

Discussion and Conclusion

The two overarching aims of the current study were to investigate the relationship between (1) sexting, sexual satisfaction and relationship satisfaction, and (2) trust in one's partner's confidential treatment of sexts, sexting and sexual satisfaction. An online survey among young adults was conducted in order to find answers to these questions.

Past research has shown that sexual satisfaction predicts relationship quality among married couples (Sprecher, 2002; Yeh et al., 2006) and that sexual satisfaction can

compensate for negative events in a romantic relationship (Litzinger & Gordon, 2005). Our results replicate the findings of these earlier studies by demonstrating that sexual satisfaction significantly predicts relationship satisfaction. This implies that when sexual satisfaction is higher, relationship satisfaction is also higher. In order for partners to augment their relationship satisfaction, they might thus boost their sexual satisfaction to have a happier relationship.

In the current study, weak, yet significant correlations were found between sexting behavior and sexual satisfaction. No evidence was found, however, for a direct relationship between sexting behavior (i.e. frequency and explicitness) and sexual satisfaction after controlling for gender, sexual orientation, age, relationship length and pleasure in sex. This finding is in contrast with existing literature stating that sexting is a method to augment sexual satisfaction in romantic relationships (Parker et al., 2013). A noticeable finding in our study is that experiencing pleasure in sex was positively related to sexual satisfaction. This finding suggests that pleasure in sex may be a driver of both sexting behaviors and of sexual satisfaction, and that sexting behaviors are mostly an expression of this pleasure, rather than a factor that – in itself – contributes to sexual satisfaction. The correlation between pleasure in sex and both sexting frequency ($r = .16, p = .006$) and explicitness ($r = .22, p < .001$) supports this idea. The idea is also supported by earlier research. A study on sexting behavior among young Hispanic women, for example, found that sexting behavior was more common in women who found sex to be deeply enjoyable (Ferguson, 2011). Pleasure in sex was not included as a factor into the theoretical model of the current study. We thus advise future research to further consider the role it plays in the relationship between sexting and relational outcomes.

In the mediation analysis (in which we did not include control variables), we found that sexting frequency and sexting explicitness indirectly predicted relationship satisfaction

through sexual satisfaction. As found in the studies of Currin et al. (2016), and McDaniel and Drouin (2015), the relationship between sexting and relationship satisfaction is complex and other factors may affect this relationship. This already shows in the current study since, according to the results, sexting does not predict sexual satisfaction directly after controlling for gender, sexual orientation, age, relationship length and pleasure in sex. In future studies a more complex model is needed.

Sexting is a risky practice because of the negative consequences when one's sexts become redistributed. It was found that when partners were in relationships characterized by less trust, the possibility that the sexts were forwarded was higher (Drouin et al., 2013). We hypothesized that when there is a higher level of trust in the partner's confidential treatment of sexts, sexting frequency would also be higher and individuals would be more likely to share more explicit content. Our findings were in line with our expectations. This supports the idea that trust is an important factor that facilitates sexting behavior between romantic partners.

In the study by Drouin et al. (2013), individuals in committed relationships were found to sext more frequently with their partners and send more explicit content than individuals in casual relationships. Drouin et al. (2013) presume that the reason for this difference is the fact that the latter relationships are characterized by lower trust and intimacy. In the current study we only investigated young adults who are in a relationship. However, the fact that trust plays an important role in our study indicates that this may indeed be a relevant factor in the differential sexting behaviors in different relationship types. For future research it would be interesting to consider the sexting behaviors of individuals in different kinds of relationship types and how trust is related to the sexting behavior (and its outcomes).

The mediation analysis revealed that trusting the partner for not redistributing the sexts influences sexual satisfaction indirectly through sexting frequency and sexting explicitness.

From previous literature it was already found that trust is an important factor in relationship satisfaction (Anderson & Emmers-Sommer, 2006; Larzelere & Huston, 1980; Rempel et al., 1985). We can conclude that trust, also in terms of sexual satisfaction, plays an important role in romantic relationships.

Limitations and future studies

The present study has a number of limitations. First, with respect to trust, we focused specifically on trusting the partner for not redistributing the sexts. We did not consider trust in the partner in general. Trusting the partner in general, however, is an important factor that determines relationship satisfaction (Anderson & Emmers-Sommer, 2006; Larzelere & Huston, 1980; Rempel et al., 1985). In future research, we therefore suggest considering the role of trust in general, since both trust and sexual intimacy are key features of committed relationships (Rempel et al., 1985).

Second, the sample holds limitations. The current sample is not a random sample of people in a relationship; three-third of the sample was female, which could affect conclusions. Additionally, no conclusions can be drawn on sexual orientation in relationship with sexting behavior, since the sample of non-heterosexual participants was limited. Moreover, sexting is a somewhat sensitive topic. We might presume that individuals who are open for filling in a survey about sexting, in general are more open and more likely to sext. However, no exceptional numbers were found with regard to sexting frequency or explicitness, which probably does not make it a severe limitation.

Third, most variables were not normally distributed, thus interpretation of the results should be with caution.

Since no direct relationships were found between sexting and sexual satisfaction after controlling for gender, sexual orientation, age, relationship length, and pleasure in sex, future

studies should focus on the role that these and other factors, such as relevant personality traits or relationship characteristics play. McDaniel and Drouin (2015), for example, examined attachment style in relationship with sexting behavior, which in turn might affect sexual satisfaction. Additionally, relationship closeness as a relationship characteristic could be interesting to examine in future research, since relationship closeness could affect self-disclosure between partners and thus their sexting behavior.

Previous research found that sexual satisfaction could compensate for negative events in a romantic relationship (Litzinger & Gordon, 2005). Therefore, in future studies it would be interesting to examine whether sexting could also compensate for negative events (e.g. poor communication) in relationships, and how that compensation could be achieved. This is relevant, because sexting then might be a method to enhance relationship quality at times when a romantic relationship is not going well.

Final conclusions

The present study extends previous literature in showing that sexting relates positively to sexual satisfaction, which, in turn, predicts relationship satisfaction. However, the contribution of sexting is no longer significant once controlling for pleasure in sex, which suggests sexting is a side-effect of the latter personality trait, and that pleasure in sex mostly explains sexual satisfaction. Trust in one's partner's confidential treatment of sexts appears to affect sexting behavior. Future research is needed to explore how personality traits play a role in the topic of sexting, trust, sexual satisfaction, and relationship satisfaction.

References

- Anderson, T. L., & Emmers-Sommer, T. M. (2006). Predictors of relationship satisfaction in online romantic relationships. *Communication Studies*, 57(2), 153-172.
- 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(3), 307-313.
- Bobkowski, P. S., Brown, J. D., & Neffa, D. R. (2012). "Hit Me Up and We Can Get Down" US youths' risk behaviors and sexual self-disclosure in MySpace profiles. *Journal of Children and Media*, 6(1), 119-134.
- Byers, E. S. (2005). Relationship satisfaction and sexual satisfaction: A longitudinal study of individuals in long-term relationships. *Journal of sex research*, 42(2), 113-118.
- 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.
- Currin, J. M., Jayne, C. N., Hammer, T. R., Brim, T., & Hubach, R. D. (2016). Explicitly Pressing Send: Impact of Sexting on Relationship Satisfaction. *The American Journal of Family Therapy*, 44(3), 143-154.
- Day, T. (2010). The new digital dating behavior-sexting: Teens' explicit love letters: Criminal justice or civil liability. *Hastings Communications and Entertainment Law Journal*, 33(1), 1-31.
- Döring, N. (2014). Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting? *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 8(1), article 9.

- 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.
- 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(5), A25-A30.
- Ferguson, C. J. (2011). Sexting behaviors among young Hispanic women: Incidence and association with other high-risk sexual behaviors. *Psychiatric Quarterly*, 82(3), 239-243.
- Hasinoff, A. A., & Shepherd, T. (2014). Sexting in context: Privacy norms and expectations. *International Journal of Communication*, 8(24), 2932-2415.
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and Family*, 50(1), 93-98.
- Kisler, T. S., & Scott Christopher, F. (2008). Sexual exchanges and relationship satisfaction: Testing the role of sexual satisfaction as a mediator and gender as a moderator. *Journal of Social and Personal Relationships*, 25(4), 587-602.
- Larzelere, R. E., & Huston, T. L. (1980). The dyadic trust scale: Toward understanding interpersonal trust in close relationships. *Journal of Marriage and the Family*, 42(3), 595-604.
- Litzinger, S., & Gordon, K. C. (2005). Exploring relationships among communication, sexual satisfaction, and marital satisfaction. *Journal of sex & marital therapy*, 31(5), 409-424.
- McDaniel, B. T., & Drouin, M. (2015). Sexting among married couples: Who is doing it, and are they more satisfied? *Cyberpsychology, Behavior, and Social Networking*, 18(11), 628-634.

- Parker, T. S., Blackburn, K. M., Perry, M. S., & Hawks, J. M. (2013). Sexting as an intervention: Relationship satisfaction and motivation considerations. *The American Journal of Family Therapy*, 41(1), 1-12.
- Perlman, S. D., & Abramson, P. R. (1982). Sexual satisfaction among married and cohabiting individuals. *Journal of Consulting and Clinical Psychology*, 50(3), 458-460.
- Pettigrew, J. (2009). Text messaging and connectedness within close interpersonal relationships. *Marriage & Family Review*, 45(6-8), 697-716.
- Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of personality and social psychology*, 49(1), 95-112.
- Ross, M. W. (2005). Typing, doing, and being: Sexuality and the Internet. *Journal of sex research*, 42(4), 342-352.
- Santtila, P., Wager, I., Witting, K., Harlaar, N., Jern, P., Johansson, A., Varjonen, M., & Sandnabba, N. K. (2007). Discrepancies between sexual desire and sexual activity: Gender differences and associations with relationship satisfaction. *Journal of Sex & Marital Therapy*, 34(1), 31-44.
- Sprecher, S. (2002). Sexual satisfaction in premarital relationships: Associations with satisfaction, love, commitment, and stability. *Journal of sex research*, 39(3), 190-196.
- Walrave, M., Heirman, W., & Hallam, L. (2014). Under pressure to sext? Applying the theory of planned behaviour to adolescent sexting. *Behaviour & Information Technology*, 33(1), 86-98.
- Weisskirch, R. S., & Delevi, R. (2011). "Sexting" and adult romantic attachment. *Computers in Human Behavior*, 27(5), 1697-1701.
- Yeh, H. C., Lorenz, F. O., Wickrama, K. A. S., Conger, R. D., & Elder, G. H. (2006). Relationships among sexual satisfaction, marital quality, and marital instability at midlife. *Journal of family psychology*, 20(2), 339-343.

- Yoo, H., Bartle-Haring, S., Day, R. D., & Gangamma, R. (2014). Couple communication, emotional and sexual intimacy, and relationship satisfaction. *Journal of sex & marital therapy*, 40(4), 275-293.
- Zemmels, D. R., & Khey, D. N. (2015). Sharing of digital visual media: privacy concerns and trust among young people. *American Journal of Criminal Justice*, 40(2), 285-302.