

SEXTING AND SATISFACTION:
WAS IT GOOD FOR YOU?

A Thesis Submitted to the Committee on Graduate Studies in Partial Fulfillment of the
Requirements for the Degree of Master of Science in the Faculty of Arts and Science

TRENT UNIVERSITY

Peterborough, Ontario, Canada

© Copyright by Erik B. Bridle 2019

Psychology M.Sc. Graduate Program

May 2019

Abstract

Sexting and Satisfaction: Was it Good For You?

Erik B. Bridle

Sexting was explored in relation to cohabitation status, general and sexual communication, as well as the anxious and avoidant dimensions of attachment. The present study was focused the distinction between lifetime and recent sexting, in an attempt to more accurately assess the relationships between the examined factors and sexting behaviours. Individuals in long-distance relationships were more likely to report recently sexting and engaged more frequently than those in cohabitating relationships, but did not differ in their levels of sexual satisfaction. Recent sexters reported higher levels of sexual communication compared to lifetime sexters, and sexual communication was positively, though weakly, correlated with sexting frequency. The present study was unable to support a predictive relationship between recent sexting and levels of attachment anxiety or avoidance. These results highlight the importance of exploring the context in which sexting occurs, as well as distinguishing between lifetime and recent sexters in future sexting research.

Keywords: Sexting, Lifetime Sexting, Recent Sexting, Sexual Communication, Sexual Satisfaction, Relationship Satisfaction, Cohabitation Status, Long Distance Relationship, Attachment.

Acknowledgments

I would first like to thank Dr. Terry Humphreys for acting as my thesis supervisor, and for all of the support and guidance he provided throughout the production of this thesis. His knowledge and insight into the area of sexting research was immensely helpful, as was his encouragement to go out and present this research at conferences. I was very fortunate to have had the opportunity to work with him.

I would also like to give my thanks to the members of my thesis committee, Dr. Elaine Scharfe and Dr. Alex McKay, for the time, expertise and insights that they gave to this thesis.

I would also like to thank all those in my life, both in academia, and at home, who supported me, encouraged me, and at times reminded me to stop and take a breath during the production of this thesis. I want to thank my parents, who have both supported me immensely throughout my university experience. I also want to thank my partner, Kayla, in particular, not only for her love and support, but also for always being there to listen to me endlessly talk through my statistics, and interpretations, even when she had no idea what I was talking about.

Table of Contents

Abstract:.....	ii
Acknowledgements:.....	iii
Table of Contents:.....	iv
List of Tables:.....	vi
List of Figures:.....	vii
List of Appendices:.....	viii
Introduction:	1
Sexting and Cohabitation Status:	5
Sexting and Communication:	7
Sexting and Attachment Dimensions:	12
Hypotheses:	17
General Sexting Hypotheses:	17
Sexting and Cohabitation Status:	20
Sexting and Communication:	20
Sexting and Attachment Dimensions:	21
Methods:.....	21
Demographic Questions:	21
Relationship Status:	22
Sexual Experiences:	24
Sexting Experiences:	25
Relationship and Sexual Satisfaction:	26
General Communication (Self and Partner):	27
Sexual Communication:	28
Adult Romantic Attention Dimensions:	29
Romantic Trust:	30
Results:	30
General Sexting Hypotheses:	32
Sexting and Relationship Contexts:	41
Sexting prevalence between relationship contexts:	41

Sexual satisfaction and sexting across relationship styles:	48
Predictive power of relationship contexts:	55
Sexting and Communication:	62
Examinations of Expected Interaction:	62
Sexting frequency and communication:	64
Predictive power of communication:	66
General communication skill:	66
Sexual communication skill:	67
Sexting and Attachment Dimensions:	68
Predictive power of attachment dimensions:	70
Discussion:	71
General Sexting Hypotheses:	71
Sexting and Cohabitation Status:	75
Sexting and Communication:	80
Sexting and Attachment Dimensions:	84
Limitations:	89
Conclusions:	95
References:	99
Appendices:	107

List of Tables

Table 1: Overall Demographic Information of Study Sample:	22
Table 2: Overall Relationship Demographics of the Study Sample:	23
Table 3: Sexual Prevalence and Frequency Across Cohabitation Statuses.....	24
Table 4: Summary of Descriptive Statistics for Major Study Factors:	31
Table 5: Summary of Lifetime Sexting Prevalence Across Sexting Styles:	32
Table 6: Summary of Lifetime Partner Sexting Prevalence Across Sexting Styles:	32
Table 7: Summary of Recent Sexting Prevalence Across Sexting Styles:	32
Table 8: Comparison of Means Between Lifetime and Recent Sexters:	35
Table 9: Pearson Correlations Between Recent Sexting Frequencies for All Sexting Styles:	39
Table 10: Report of Chi Square Analyses for Recent Sexting Engagement Across Cohabitation Statuses:	43
Table 11: Comparison of Sexting Frequencies for Recent Sexters Across Relationship Contexts:	47
Table 12: Recent Sexting Engagement Across Cohabitation Statuses:	48
Table 13: Comparison of Sexual Frequencies Across Relationship Contexts.....	54
Table 14: Results of Logistic Regression for Recent SSTM Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction:	55
Table 15: Results of Logistic Regression for Recent SETM Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction:	56
Table 16: Results of Logistic Regression for Recent SSP Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction:	56
Table 17: Results of Logistic Regression for Recent PNP Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction:	57
Table 18: Results of Logistic Regression for Recent NP Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction:	57
Table 19: Correlation Matrices of Relationship and Communication Variables:.....	63
Table 20: Correlations Between Recent Sexting Frequency and Communication Variables:	65
Table 21: Correlations Between Recent Sexting Frequency and ECR-S Scores.....	68
Table 22: Comparison of Attachment Dimension Means Between Lifetime and Recent Sexters:	69

List of Figures

Figure 1: Prevalence of recent “two-way” sexting across all measured sexting styles:40

Figure 2: Frequency of sexting among recent two-way sexters:40

Figure 3: Prevalence of recent “two-way” sexting among those in cohabitating relationships: ..41

Figure 4: Prevalence of recent “two-way” sexting among those in GC relationships:42

Figure 5: Prevalence of “two-way” recent sexting among those in LDRs:42

Figure 6: Interaction between recent SSTM engagement and cohabitation status for sexual satisfaction:49

Figure 7: Interaction between recent SETM engagement and cohabitation status for sexual satisfaction:50

Figure 8: Interaction between recent SSP engagement and cohabitation status for sexual satisfaction:51

Figure 9: Interaction between recent PNP engagement and cohabitation status for sexual satisfaction:52

Figure 10: Interaction between recent NP engagement and cohabitation status for sexual satisfaction:53

List of Appendices

Appendix A: Consent Form:	107
Appendix B: Debrief Form:	109
Appendix C: Demographics:	110
Appendix D: Relationship Demographics:	111
Appendix E: Sexual Activity Questions:	112
Appendix F: Sexual Activity List:	113
Appendix G: Sexting Behaviours:	114
Appendix H: Global Measure of Relationship Satisfaction and Global Measure of Sexual Satisfaction (GMREL/GMSEX):	120
Appendix I: Communication Functioning Questionnaire Self (CFQS):	121
Appendix J: Communication Functioning Questionnaire Partner (CFQP):	122
Appendix K: Dyadic Sexual Communication Scale (DSCS):	123
Appendix L: Experiences in Close Relationships Scale (Short) (ECRS):	124
Appendix M: Dyadic Trust Scale (DTS):	125
Appendix N: Abbreviation Guide:	126

Sexting and Satisfaction: Was It Good For You?

When sexting emerged into the public sphere with the rising availability of smart phones, early research focused heavily on sexting among adolescents, whose participation in sexting, especially photo-based sexting, existed in a legal grey zone (Bailey & Hanna, 2011). Among adolescents, studies sought to determine the potential negative consequences associated with sexting engagement, exploring the behaviour's links to risky sexual behaviours, as well as psychological distress such as depression, and substance use (Dake, Price, Maziarz, & Ward, 2012; Rice et al., 2012; Van Ouytsel, Walrave, Ponnet, & Heirman, 2015; Van Ouytsel, Van Gool, Ponnet, & Walrave, 2014). Researchers sought to understand this new phenomenon and how it might negatively impact younger individuals. However, adolescents are not the only individuals who sext. In fact, young adults have been found in many studies to be more likely to engage in sexting behaviours compared to their younger counterparts (Lenhart, 2009; National Campaign To Prevent Teen And Unplanned Pregnancy (NCPTUP), 2008). With higher prevalence rates among young adults, research has also sought to examine how sexting impacts this relatively older population. The purpose of the present study was to expand upon past findings regarding the sexting habits of young adults, and to explore how this relatively new set of sexual behaviours interacts with the romantic relationships of young adults. The present study sought to examine how cohabitation status, with a specific focus on Long Distance Relationships (LDR), interacts with sexting engagement. Secondly, the present study sought to explore how sexting in a relationship relates to the degree of communication skills within that relationship. Finally, the present study sought to examine how the attachment dimensions of anxiety and avoidance relate to current sexting engagement within a relationship.

Sexting is a constellation of behaviours involving the transmission of self-generated sexual media, be it text, photos or videos. A point of confusion in some studies is the distinguishing of sending and receiving sext messages as separate behaviours. Some studies focus specifically on sending behaviours, while others collapse the two behaviours into one, examining sexting engagement in any form. However, some studies have distinguished between exclusively sending and receiving and “Two-Way” sexting, engaging in both sending and receiving behaviours. Bauermeister, Yeagley, Meanley, and Pingel (2014) examined sexting behaviour among men who have sex with men (MSM), and found that while more than 80% of the sample engaged in sexting behaviours, 75% of sexters engaged in both sending and receiving behaviours. Currin, Jayne, Hammer, Brim and Hubach (2016) found roughly that 65% men and women engaged in both behaviours, while only 1-10% engaging in sending/receiving exclusively. Gordon-Messer, Bauermeister, Grodzinski, and Zimmerman (2013) found that 28% of the sample engaged in two-way sexting, while only 12% and 2% engaging in exclusively receiving and sending behaviours respectively. Although the overall prevalence rates of sexting differed dramatically, the findings still suggest that sexting predominantly occurs in both directions.

Although there is variance between studies, certain forms of sexting have been found to be relatively common among young adults (Delevi & Weisskirch, 2013; Gordon-Messer et al., 2013; Hudson & Fetro, 2015; NCPTUP, 2008). Early research by the NCPTUP in 2008 found that 59% of young adults (aged 20 – 26) had sent a sexual message, while only 33% reported having sent or posted a semi-nude or nude photo. However, it appears that overall, acceptance of these behaviours among young adults have increased with later studies showing prevalence rates for sending photo-based sexts of up to 62% (Drouin, Coupe, & Temple, 2017).

When moving from text-based messages into pictures and videos showing partial or complete nudity, behaviours typically seen as more explicit or risky, engagement appear to become less prevalent and less frequent (Delevi & Weisskirch, 2013; Gordon-Messer et al., 2013; NCPTUP, 2008). There may be practical reasons to these lower prevalence rates, as there may be fewer opportunities to engage in photo-based behaviours, either due to partner availability, or lacking the privacy to take a sexual photo. Text-based sexting may be more viable in a wider array of circumstances, which may explain why it appears to be more common. However, another reason may be that these behaviours involve self-generated images/videos, meaning that these behaviours may hold greater potential for embarrassment or other negative consequences should they go beyond their intended recipient, a behaviour known as “forwarding”. This possibility has some support, as forwarding is often cited as the most common worry regarding sexting engagement, and a large majority of individuals report believing that it is risky for a woman (88%) or a man (77%) to send a nude photo (Dir & Cyders, 2015; Lim, Vella, Horyniak, & Hellard, 2016; Renfrow & Rollo, 2014).

Studies have also found that individuals would prefer to wait until later in a relationship to engage in more explicit or risky sexting behaviours (Delevi & Weisskirch, 2013; Dir, Coskunpinar, Steiner, & Cyders, 2013; Henderson & Morgan, 2011). This finding may be partially derived from the desire to have a trusted partner to limit the potential risks associated with sexting. Hudson and Fetro (2015) found that more than a quarter of the individuals who reported never engaging in sexting behaviours indicated that having a trusted partner would increase their likelihood of engaging in sexting behaviours in the future. Furthermore, Lim et al. (2016) found that although 30% of individuals reported that if a new partner sent them a sext, they might show it to friends, only 14% of individuals reported that they would do so with a

more committed partner. Although the researchers were asking about individuals their agreement with a hypothetical behaviour, rather than their actual behaviour, the results do suggest that explicit or risky behaviours may be more likely to occur within the romantic relationships, where individuals have access to a consistent and trusted partner.

This possibility is also supported by findings by Delevi and Weisskirch (2013), who found that individuals who were in romantic relationships were more likely to send sexual text messages than single individuals. When examining sexting engagement, studies have indicated that between 66% and 87% of sexting individuals reported that their sexting partner was a current romantic partner, rather than a potential partner or non-partner (Garcia et al., 2016; Perkins, Becker, Tehee, & Mackelprang, 2014). Drouin and Landgraff (2012) examined individuals in romantic relationships and found that 67% reported having sent a sexual text to their partner, while 54% had sent a sexual photo. With studies supporting the greater likelihood of sexting among individuals in romantic relationships, studies exploring how sexting interacts with these relationships are logical next step.

The purpose of the present study was to examine the relationships between sexting engagement and both sexual and relationship satisfaction through three separate lenses. Firstly, the present study sought to examine how relationship length and cohabitation status impact the relationships between sexting and satisfaction. Secondly, the present study sought to examine the impact of both general and sexual communication skill on sexting engagement. Neither cohabitation status nor communication has been examined in their relation to sexting engagement, so the present study approached these from an exploratory basis. Finally, the present study sought to examine how levels of attachment anxiety and avoidance interact with sexting engagement. The present study also sought to build upon past research by examining

sexting specifically within the context of a romantic relationship, and by examining these effects among recent, or current sexters, rather than focussing on lifetime sexting engagement.

Sexting and Cohabitation Status.

Although sexting has been explored within romantic relationships, certain contexts of these relationships remain unexplored in the literature. Relationship status (e.g. single, casually dating, steady relationship, engaged, married) and length are often included in demographic measures, but factors such as cohabitation status are not taken into consideration. These factors may impact not only how frequently sexting occurs within a relationship but may also impact how sexting is used and perceived within that relationship. Individuals with limited physical access to their significant other, such as individuals in LDRs, may be more inclined to engage in technologically mediated behaviours to attain sexual gratification and intimacy. Although not examined with regard to sexting, other areas of research have examined how factors such as cohabitation status impact the use of communications technology and how this use relates to relationship satisfaction.

Luo (2014) found that texting was more frequent and took up a larger percentage of the total amount of communication in relationships that were less committed (based on their status) and further apart, potentially due to a lack of availability for face-to-face communication. Although they did not examine the interplay between these factors and relationship satisfaction, these results do suggest that mediated communication becomes more prevalent in specific types of relationships (Luo, 2014). Drawing from this result, it is likely that sexting, a mediated form of sexual interaction, may be more common among this population as well. Although Luo (2014) provided evidence for a greater use of texting among more geographically separated couples, other research has suggested that they may also be used differently by these couples as well.

Billedo, Kerkhof and Finkenauer (2015) examined how LDR couples utilize social networking sites (SNS) compared to Geographically Close (GC) couples. Although LDR couples had similar levels of commitment, trust and satisfaction (but lower levels of relationship certainty) compared to GC couples, LDR couples used SNS more intensely and were more likely to be using SNS for relationship maintenance. LDR couples used SNS both for strategic (conscious and planned) maintenance, as well as routine (unplanned but positive) maintenance behaviours (Billedo et al., 2015). Although this study examined the use of SNS and not sexting, it does provide more evidence that LDR couples use technologically mediated forms of communication more frequently and differently, as they appear more likely to use these mediums as a method of relationship maintenance. If this holds true for sexting, individuals in LDR, as well those in GC but non-cohabitating relationships, may be more likely to use sexting as a form of relationship maintenance, resulting in a stronger relationship between sexting engagement and satisfaction. Furthermore, there is research to suggest that the use of technologically mediated communication may contribute to satisfaction to a greater degree among LDR couples.

Jiang and Hancock (2013) utilized the Interpersonal Process Model of Intimacy (IPMI) as a basis to examine communication and intimacy among LDR couples. Although relationship satisfaction did not differ between the two cohabitation groups, participants in LDRs reported fewer instances of communication with their partner per day. Furthermore, LDR couples were more likely to utilize modes of communication with low cue multiplicity (lower numbers of interpersonal cues such as facial expression, body languages, and vocal tone), a lack of synchronicity (meaning that conversations did not occur in real time between individuals), and that were more portable. Although these forms of communication may be perceived as being less intimate, the use of these mediums was related to increased levels of self disclosure among LDR

couples. These couples also indicated greater perceptions of interaction intimacy as well as greater perceptions of their partner's self-disclosure. Although this perception was positively correlated with the actual degree of partner self disclosure, they were partially independent, with individuals perceiving their partner as being more self-disclosing than they actually were. The researchers suggested that this might be the result of idealization, a form of positive enhancement in the relationship that made the limited communication seem more intimate. This is in line with the IPMI, in which perceived partner responsiveness is a predictor of intimacy in the relationship over and above the levels of personal and partner self-disclosure. This may be the method through which LDR couples maintain equivalent levels of relationship satisfaction compared to GC couples, despite limited communication (Jiang & Hancock, 2013). Similarly to the methods of communication described in the study by Jiang and Hancock (2013), sexting behaviours have limited cues, synchronicity, and increased portability, and so may act similarly to other forms of mediated communication for LDR couples, providing a form of sexual intimacy that is perceived of as being more intimate as a result of its more limited nature.

Sexting and Communication

Although sexting has not been examined in relation to communication, limited past research has examined how it relates to various measures of satisfaction. Sexting research has shown that sexting couples are more likely to show consensus in their relationships, meaning they agree more on the conventionality, affection levels, and sexual aspects of their relationship, and their sexting behaviours were more likely to be motivated by hedonism, the desire to experience positive feelings and fulfill sexual desires (Parker, Blackburn, Perry, & Hawks, 2013). Furthermore, individuals who engaged in more explicit or risky sexting behaviours, such as sending nude or semi-nude images or videos, were often motivated by a desire to maintain

their relationship with their partners (Champion & Pedersen, 2015). These results together appear to suggest a relationship between sexting and relationship satisfaction. However, when examining satisfaction more specifically, the relationship becomes less clear.

Currin et al. (2016) found that among both heterosexual as well as gay, lesbian and bisexual (combined into “non-heterosexual” in the study) men and women, most individuals showed no significant relationship between sexting and satisfaction. Only heterosexual women who only received sext messages reported lower levels of satisfaction compared to women who had never received or sent a sext message. These results suggest that for most individuals, sexting may not play a role in relationship satisfaction, and may actually be detrimental to relationship perceptions for certain groups (Currin et al., 2016). However, two factors should be considered when interpreting these results. Firstly, the researchers only examined lifetime sexting, meaning that it cannot be assumed that all of the “sexting” individuals were active sexters, just that they had sexted at least once in their lives. Secondly, they did not specify, at least according to their methods section, that they were asking specifically about sexting with their partner, meaning that extra-relational (sexting with someone other than a relationship partner while in a relationship), and pre-relational sexting (sexting behaviours that occurred before the present relationship) may be captured along with relational-sexting (sexting with the partner). Although sexting research related to satisfaction is limited, research examining the interplay between more general forms of technologically mediated communication and satisfaction may provide additional inferences.

McGee (2014) examined the possible impact of computer mediated communication on satisfaction and intimacy among individuals in romantic relationships. Interestingly, the study found no relationship between intimacy and frequency of texting, or instant messaging engaged

in on a typical day. Only emails appeared to have an impact on intimacy scores, where individuals who sent a moderate number of emails to their partner each day showed higher intimacy scores compared to participants who sent high or low numbers of emails. Furthermore, these results extended to relationship satisfaction as well. The researchers proposed that the lack of impact by most communication types on measures of satisfaction and intimacy may suggest that is simply a tool for relationship maintenance like other forms of communication, and may not be a barrier to intimacy as some suggest (McGee, 2014). However, Luo (2014) examined not only the total frequency of texting, but also examined the percentage of daily conversations with a romantic partner that texting accounted for. While no relationship was found between texting frequency and relationship satisfaction, the percent share of texting negatively predicted relationship satisfaction, after controlling for age, gender, relationship status, length and distance. This suggests that there is a relationship between texting making up a greater amount of the total daily interactions and lower levels of overall satisfaction in a relationship. However, the researchers were not able to determine the direction of the relationship between texting share and satisfaction (Luo, 2014).

Frederick et al. (2017) collected data through a national survey of cohabitating and married individuals, and found that a variety of factors, including greater sexual frequency, increased variety of sexual behaviours, and sexual mood setting were related with higher levels of sexual satisfaction. More relevant to the present study, however, the researchers also found that individuals who employed greater numbers of communication strategies, including asking for certain behaviours, praising their partner, and seeking feedback, reported higher levels of sexual satisfaction, suggesting that communication is an important factor in the maintenance of sexual satisfaction in romantic relationships (Frederick et al., 2017). Additionally, many of the

communication strategies examined related to either requesting specific sexual behaviours, potentially seeking to improve, or seeking confirmation of enjoyment. If individuals use sexual communication as a means of confirming or improving sexual enjoyment, then individuals who are high in sexual communication may also apply these strategies to their sexting practices. Furthermore, Frederick et al. (2017) found that significantly more satisfied men and women reported that in the past month either they or their partner engaged in calling or emailing the other to “tease” a sexual behaviour or encounter through flirtation than unsatisfied individuals. Although not classified as sexting in the study, this research does provide evidence for a relationship between sexting and satisfaction when examining more recent behaviours.

Although the interplay between communication, sexting and satisfaction has not been investigated in the sexting literature, broader research has shown that communication, both general and sexual, relate positively to general and sexual satisfaction amongst couples (Coffelt & Hess, 2014; Frederick, Level, Gillespie, & Garcia, 2017; Mark & Jozkowski, 2013; Montesi, Fauber, Gordon, & Heimberg, 2010).

Mark and Jozkowski (2013) examined a mediation model between communication and levels of satisfaction among heterosexual young adult couples. The model found that overall relationship satisfaction was moderately and positively predictive of sexual satisfaction both overall and when examining males and females separately. Furthermore, both general and sexual communication positively related to overall and sexual satisfaction for both men and women, and mediated the relationship between sexual and general satisfaction, suggesting that both play a role in how the two forms of satisfaction interact. Montesi et al. (2010), also examined how these factors interacted, and found that both sexual communication and general communication uniquely explained variance in relationship satisfaction, suggesting that both play an important

role in overall perceptions of the relationship. However, Montesi et al. (2010) found that only sexual communication uniquely contributed to the variance in the measure of sexual satisfaction, with relationship length moderating the interaction, such that couples in relationships lasting longer than one year showed a stronger interaction than individuals in shorter relationships (Montesi et al., 2010).

Finally, Montesi et al. (2010) found that sexual satisfaction partially mediated the relationship between sexual communication and overall relationship satisfaction, explaining more than half of the relationship between the two variables. This suggests that part of the effect that open sexual communication has on the overall perceptions of the relationship occurs as a result of improvements to sexual satisfaction.

Coffelt and Hess (2014) examined the role of sexual disclosure topics in relation to satisfaction among married couples. Although sexual disclosures happened infrequently among participants in the study, possibly due to the longer relationship lengths (average of 14 years) leading to fewer topics that had not already been disclosed, both frequency and number of topics positively related to relationship satisfaction, as well as perceived affiliation or closeness. Positive topics, including sexual preferences, positive attitudes, and sexual history positively predicted satisfaction and closeness, while the disclosure of negative sexual attitudes and affect negatively predicted satisfaction (Coffelt & Hess, 2014).

Although the interaction between sexting and satisfaction has received mixed support in the sexting literature, research examining the interplay of communication and satisfaction provides a potential route for analysis that may reveal a relationship between sexting and satisfaction. If sexual communication impacts general satisfaction partially through sexual satisfaction, then it may play important role in the relationship between sexting and overall

satisfaction as well. Individuals with more open sexual communication regarding interests, preferences, and desires may show a stronger interaction between the sexting and sexual satisfaction. If sexual communication is used to seek feedback and improve sexual elements within the relationship, as suggested by the results of Coffelt and Hess (2014) as well as Frederick et al. (2017), then it may also be used to improve the experience of sexting within the relationship. If this is true, then it may be expected that sexual communication (as well as general communication to a degree) moderate the relationship between sexting and satisfaction, such that individuals who communicate more effectively will show a significant positive relation between the two factors, while individuals who do not communicate as well show a smaller, or even negative relationship. This possibility may be the basis for the results of Currin et al. (2013) wherein heterosexual women who only received sext messages showed lower levels of relationship satisfaction. If there was no communication within the couple regarding what was desired from sexting, or if it was desired at all, then engaging in the behaviour may be detrimental.

Sexting and Attachment Dimensions.

Although more recent attachment research has expanded from the initial three factor model of attachment (secure, anxious and avoidant), the model is still a common lens through which many sexuality researchers explore the role of attachment dimensions in the sexual lives and experiences of adults. Davis, Shaver and Vernon (2004) examined how attachment anxiety and avoidance might relate to different sexual motivations. Using the Experiences in Close Relationship (ECR) scale, the researchers found that higher levels of attachment anxiety related to increased likelihoods of sexual engagement when relationship insecurity was high, and that more anxious individuals were especially motivated to engage in sexual behaviours for

emotional closeness and reassurance, as well as stress reduction and increasing self esteem. Scores on the attachment avoidance dimension on the other hand, were strongly and negatively related to engaging in sexual behaviours for emotional closeness and to a lesser degree, reassurance. Avoidance was also minimally but positively related to sexual engagement for stress-reduction motivations, as well as motivations such as exerting power, or avoiding a partner's negative mood. The researchers suggested that sex may be fulfilling attachment motives for partner closeness and reassurance for individuals with higher levels of attachment anxiety, while individuals high in avoidance may use sex as a means of reducing stress while avoiding emotional closeness (Davis et al., 2004). As attachment dimensions have been shown to interact with sexual behaviours, researchers have also been interested in exploring how these dimensions relate to the engagement in sexting behaviours.

There has been a consistent trend in sexting research suggesting that sexting is more likely to occur among individuals who are higher on certain attachment dimensions (Drouin & Landgraff, 2012; Trub & Starks, 2017; Weisskirch & Delevi, 2011). There has also been limited research to suggest that levels of attachment dimensions might be an important factor in relating sexting to relational satisfaction among romantic couples (McDaniel & Drouin, 2015). However, despite a consistent trend between sexting and attachment, the specifics of this relationship are inconsistent between studies.

Weisskirch and Delevi (2011) examined the relationship between sexting behaviours and romantic attachment, comparing college aged students who were currently in romantic relationships to single individuals. The researchers examined sexting across several different behaviours, including sexually suggestive photos or videos, photos/videos of individuals in their underwear, nude photos/videos, sexually suggestive text messages, and texts propositioning

sexual activity. However, only individuals with greater levels of attachment anxiety who were also in a relationship were found to be more likely to have sent text messages propositioning sexual activity with their partner. Furthermore, higher levels of attachment anxiety were related to higher relationship expectations for sexting (perception that their engagement in sending sexual texts and photos was expected of them by their partners). The researchers suggested that sexting may be a new method through which the hyperactivating behaviours of anxious attachments can be enacted. Sexting may be used by those individuals as a means of seeking reassurances of their partners' interest in them. Furthermore, if these individuals felt that sexting was an expected part of relationships, they may be engaging in the behaviours as a means of sustaining their partners interest and satisfaction with the relationship (Weisskirch & Delevi, 2011). Impett et al. (2008) found that among individuals with higher levels of attachment anxiety were more sexually motivated by a desire to please a partner, enhancing intimacy and expressing love. Sexting may be used by anxiously attached individuals for similar reasons. Another possible motivation for sexting among anxious individuals might relate to impulse control. Similar to the findings of Weisskirch and Delevi (2011), Trub and Starks (2017) found that recent sexting engagement was correlated positively with attachment anxiety. However, they also found that this relationship was partially mediated by an individual's difficulty controlling impulses at times of emotional stress, suggesting another possibility that may lead to greater sexting engagement among individuals higher in attachment anxiety.

Although Weisskirch and Delevi (2011) provided support for a relationship between sexting and attachment dimensions within relationships, the interaction was limited only to behaviours having to do with the requesting of real-world sexual encounters or behaviours, and only to individuals with higher levels of attachment anxiety. In a larger sample, Drouin and

Landgraff (2012) found that individuals with greater reported levels of attachment anxiety were more likely to have sent a text-based sext message. However, participants who were higher on the avoidant attachment dimension were also found to be more likely to have sent both text-based and photo-based sext messages. Additionally, gender was found to be a moderator of this relationship, where in men with higher levels of avoidance were more likely to send sext messages of both types. Women with higher levels of anxiety were found to be more likely to send sext messages than men who were high in attachment anxiety, but this result fell just below significance. The researchers suggested that for individuals with higher levels of attachment avoidance, especially men, sexting engagement may be used as a means of seeking gratification and intimacy while remaining at a distance (Drouin & Landgraff, 2012).

Past research has shown that higher levels of avoidance relates positively to increases in sexual motivations for avoiding conflict, to avoid upsetting or angering their partner, and for women only, positively related to motivations for maintaining partner interest, but negatively related to engaging in sexual behaviours for partner pleasure, intimacy and expressions of love (Impett et al., 2008). Sexting may be used in similar ways, allowing individuals with higher levels of avoidance to satisfy their partners' needs without having to directly interact with them, and avoiding negative repercussions from partner due to their avoidance of intimacy.

Drouin and Landgraff (2012) also proposed that for individuals higher in avoidance, sexting may be related to casual sex or sex addiction, which avoidant individuals have been found to be more likely to engage in. Although this study does support the findings of Weisskirch and Delevi (2011), it suggests that the interplay between sexting and attachment is much broader than initially suspected. These interactions were partially supported by another study examining sexting among married couples by McDaniel and Drouin (2015).

Although the prevalence of sexting in the study was lower than in previous studies, with only 29% of the sample having sent text-based sext messages, and only 12% having sent a photo to their partner, McDaniel and Drouin (2015) did find an interaction between sexting and the anxious and avoidant attachment dimensions. Similar to Drouin and Landgraff (2012), sexting was more common among individuals with higher levels of anxiety or avoidance, however, McDaniel and Drouin (2015) found that wives with higher levels of avoidance reported more frequent sending of seminude/nude pictures to their partners compared to men with high levels of avoidance, while husbands with higher levels of anxiety were more likely to send these types of sext messages to their partners than similarly high anxiety women. These results conflict with the findings of Drouin and Landgraff (2012) who found an opposite interaction between sexting, attachment dimensions and gender. The researchers proposed that these differences may be a result of demographic factors in the study, as they had an older, married sample, while the majority of participants in the earlier study were unmarried, young adults (McDaniel & Drouin, 2015). Because older individuals might not use certain communication technologies (such as texting and photo messaging) as frequently as younger individuals, and it's because its use was not a common component of relationships when these participants were younger, there may be generational differences in who utilizes this technology for sexting purposes. It may also be that sexting engagement differs among married individuals, however, with the relative recentness of sexting as a set of behaviours and the limited research in this area, it may be hard to parse married effects from generational or age effects in the literature.

McDaniel and Drouin (2015) also found that levels of attachment avoidance moderated the relationship between sexting and relationship satisfaction, where for both genders, sending text-based sext messages was positively related to relationship satisfaction only among

individuals with high level of avoidance. This is an interesting result, as it conflicts with the findings of Muise, Impett, and Desmarais (2013) which examined sex more broadly in relation to attachment goals and satisfaction. The researchers found that engaging in sexual behaviors for avoidance goals, such as preventing a partner from being upset or disappointed, was related to lower levels of both perceived sexual and overall relationship satisfaction on those days (Muise et al., 2013). If individuals with high levels of avoidance are using sexting for avoidance goals, there would be an expected decrease in satisfaction. However, due to the distancing nature of sexting, avoidant individuals may use sexting for pleasure seeking without direct intimacy, which may increase levels of perceived satisfaction in their relationships. In study by McDaniel and Drouin (2015), there was a difference by gender for the sending of semi-nude/nude photos based on levels of attachment anxiety as well. For men, regardless of levels of attachment anxiety, sending photo-based sext messages positively related to relationship satisfaction. For women with high levels of anxiety, there was a positive relationship between photo-based sexting frequency and relationship satisfaction. However, for women with low levels of attachment anxiety there was a negative relationship between the two factors. These results suggest that sexting may only relate to relationship satisfaction among individuals with higher levels on the avoidant or anxious attachment dimensions (McDaniel & Drouin, 2015). This could explain why past research examining the interplay between sexting and relationship satisfaction have found few significant relationships between the two (Currin et al., 2016).

Hypotheses

General Sexting Hypotheses

As sexting has been found to be relatively common among young adults, it was hypothesised that a majority of the study's sample would be lifetime sexters, with more

revealing, explicit or risky behaviors, such as partially nude and nude photos being less prevalent and less frequent. Although there is only limited research examining the distinction between lifetime and current sexters, it was hypothesised that roughly half of lifetime sexters would also be recent sexters, based on previous research (Drouin & Landgraff, 2012; Hudson & Fetro, 2015). This distinction is important, as they may capture different individuals with different motivations. An individual who has sexed only one time may differ dramatically from someone who sexts more consistently. Furthermore, it was expected that the majority of sexting would be two-way, meaning that individuals would predominantly be sending and receiving sexts, rather than exclusively one or the other. Several studies have shown that the majority of sexting individuals engage in two-way sexting, and so that trend is expected here as well (Bauermeister et al., 2014; Gordon-Messer et al., 2013).

Particularly relevant to the present study is the role of relationships in sexting engagement. Past research has shown that sexting is more likely to occur and to occur more frequently within relationships, compared to single individuals (Delevi & Weisskirch, 2013; Hudson & Fetro, 2015). However, within the present study, only individuals in romantic relationships were included, so no hypothesis was made regarding to how prevalence and frequency differ between single and non-single individuals. However, it was expected that the prevalence of sexting behaviours in the sample would be slightly higher than other studies utilizing a non-partnered or non-exclusively partnered sample. It was also hypothesised that the majority of individuals who had ever sexed in their lifetime would also have engaged in sexting with their current relationship partner (Dir, Cyders & Coskunpinar, 2013).

Although the study is cross-sectional, the study examined how relationship length interacts with sexting engagement. It was hypothesised that sexting would be more frequent

among individuals who were in the earlier stages of their relationships, with more explicit or risky behaviours becoming more common as the relationship length increased. This hypothesis was derived from research which suggested that individuals would prefer to wait until later in a relationship to engage in more explicit or risky sexting behaviours (Delevi & Weisskirch, 2013; Dir, Coskunpinar et al, 2013; Henderson & Morgan, 2011). Although it was expected that sexting frequency would increase as a relationship length increases, it was also hypothesised that the relationship may be an inverse “U-shape”, with sexting being less frequent in longer relationships (McDaniel & Drouin, 2015). Research by McDaniel and Drouin (2015) examining sexting among an older, married sample found lower prevalence and frequency of sexting behaviours. Although familiarity with technology, especially smart phones, may impact older individuals ability to engage in sexting behaviour, there may also be an impact of a sexual drop off effect that is seen in other sexual behaviours across a relationship’s lifetime (Christopher & Sprecher, 2000; Poushter, 2017; Vulpe & Ilinca, 2017). Another element of the present study was the examination of sexting content, particularly individuals’ history of face inclusion in sexting photos. Past research has shown that individuals prefer to wait until later into a relationship to engage in more explicit or risky sexting behaviours, but it is possible that intimate trust plays a role here, as some non-sexters report that having a trusted partner would increase their likelihood of engaging in sexting behaviours (Hudson & Fetro, 2015). As such, face inclusion in sexting photos was also hypothesised to be related to relationship length, as well as partner trust. Although many studies have explored potential gender differences with regards to sexting engagement, the present study did not, as there was not a high enough percentage of males in the sample to accurately examine the groups separately.

Sexting and Cohabitation Status

It was hypothesised that sexting would be more common within the context of LDR and GC relationships compared to cohabitating relationships. Non-cohabitating couples have less frequent physical access to their partner and may be more likely to engage in sexting behaviours as a result. It was also hypothesised that being in a LDR or GC relationship would be predictive of recent sexting engagement.

The present study also predicted that both sexual satisfaction would differ across the three cohabitation contexts as a factor of sexting engagement. It was hypothesised that satisfaction would significantly differ with recent sexting engagement for individuals in LDR and GC relationships, but not for individuals in cohabitating relationships. It was expected that for individuals in non-cohabitating relationships, the lack of sexting would be related to lower levels of sexual satisfaction to a greater degree than for those in cohabitating relationships.

Sexting and Communication

It was hypothesised that sexual communication would significantly and positively correlate with sexting frequency among recent sexters. Additionally, it was predicted that sexual communication, as well as general communication, would positively predict recent sexting engagement. Finally, it was hypothesised that communication would partially mediate the relationship between sexting frequency and satisfaction, with general communication accounting for more of the relationship between sexting and relationship satisfaction, and sexual communication accounting for a greater amount of the interaction between sexting engagement and sexual satisfaction.

Sexting and Attachment Dimensions

It was hypothesised that current sexters would report higher levels of avoidance and anxiety compared to non-recent partner sexters. It was also hypothesised that anxiety and avoidance would be predictive of recent sexting engagement, such that individuals with higher scores on either attachment dimensions would be more likely to have sexted in the past thirty days. Past research has shown that sexual engagement is often motivated differently for both anxious and avoidant individuals (Davis et al., 2004; Impett et al., 2008). Because sexting can be conceptualized as a form of sexual behaviour, it was expected that the hyperactivating and deactivating motivations utilized by anxious and avoidant individuals would be motivating its use as well, potentially leading to more current engagement in the behaviours.

Methods

Demographic Questions

The initial sample consisted of 571 individuals in the Trent University Psychology program. Thirty-four individuals were removed due to substantial missing values on the major scales, and 33 duplicate data sets were removed from the data. Finally, 17 individuals were removed due to repeating scores across reverse scored items which suggested untruthful responses. The final usable sample consisted of 487 individuals. Table 1 displays the percentages of the major demographic variables. The sample was predominantly female, heterosexual, and Caucasian. Despite a limited number of male participants in the present sample, men were retained in the present study due to inconsistent findings in past research regarding gender differences. Without consistent findings to support the removal of these participants, it was decided to retain males for the present study to preserve their data.

Although older individuals were present in the current sample, individuals over the age of 35 comprised of only 16 participants (3.1%). These individuals were included in the analyses of the study, as although sexting was less common among this older sub-sample, there was still some engagement.

Table 1
Overall Demographic Information of Study Sample

Variable	n	Percent
Gender		
Female	423	86.9%
Male	61	12.5%
Other	3	0.6%
Partner gender		
Female	74	15.2%
Male	407	83.6%
Transgender male	1	0.2%
Transgender female	2	0.4%
Other	3	0.6%
Ethnicity		
Caucasian	412	84.6%
Asian/pacific islander	18	3.7%
African/black	16	3.3%
Hispanic/latino	9	1.8%
Native american/inuit	9	1.8%
Other	23	4.7%
Sexual orientation		
Heterosexual	428	87.9%
Gay/lesbian	7	1.4%
Bisexual	42	8.6%
Other	10	2%

Note. Age: M = 20.93, SD = 5.17, Range = 17 – 50.

Relationship Status

As relationship context was particularly important to the present study, relationship factors were assessed separately from general demographics. Participants were asked to indicate

their relationship status, with “casually dating one person”, “steadily dating one person”, “engaged”, and “married” as potential options. All participants were then asked how long their current relationship was, and if they were in a long-distance relationship (LDR) or not. Table 2 details the relationship demographics of the present sample.

Table 2
Overall Relationship Demographics of the Study Sample

Variable	n	Percent	Range	M	SD
Relationship status					
Casual	46	9.4%			
Steady	396	81.3%			
Engaged	18	3.7%			
Married	26	5.3%			
Relationship length (months)	480		0 – 312	27.09	32.46
Marriage length (months)	24		12 – 276	84.67	68.83
LDR in-person contact	194		1 – 6	3.91	1.37
GC in-person contact	175		1 – 5	2.54	1.02
Relationship type					
Cohabiting	118	24.2%			
Geographically Close (GC)	175	35.9%			
Long Distance Relationship (LDR)	194	39.8%			

Note. Refer to Appendix N for abbreviation list.

The following items were then only presented if specific criteria were met. Individuals who identified that they were married were asked how long they had been married in number of months. If participants responded that they were in a LDR, they were asked to indicate how frequently they see their partner in person on a six point Likert scale, ranging from “more than once a week” (1) to “less than once a month” (6). If they reported not being in a LDR, then they were asked if they were cohabitating with their partner. If so, they were asked how long they had been cohabitating. If they reported not being in a LDR and not cohabitating, they were asked to

indicate how often they see their partner on a five point Likert scale, ranging from “daily” (1), to “less than once a week” (5). These individuals were classified as being in a Geographically Close (GC) relationship.

Sexual Experiences

In an attempt to determine if sexting individuals were more sexual overall in their relationships, a series of items were created that assessed general sexual activity, as well as the range of sexual behaviours that had been engaged in within the relationship. Participants were asked if they had ever been sexually active (95.7%), and if they had been willingly sexually active with their current partner (89.1%). Sexual activity was defined as “physical contact of a sexual nature, with one or more other person(s) that could lead to the experience of orgasm (whether or not orgasm occurred)”.

Table 3
Sexual Prevalence and Frequency Across Cohabitation Statuses

Sexual Behaviour	<u>Cohabiting</u>		<u>Geographically Close</u>		<u>Long-distance</u>	
	M (SD)	N	M (SD)	N	M (SD)	N
Passionate kissing	7.35 (1.86)	118	7.10 (1.42)	174	5.24 (2.15)	188
Watching pornography together	2.18 (1.21)	39	2.37 (1.59)	30	2.31 (1.72)	42
Mutual masturbation	4.51 (2.01)	67	4.57 (2.01)	86	3.99 (2.01)	105
Vaginal fingering	5.59 (1.77)	111	6.21 (1.44)	159	4.63 (1.92)	182
Anal fingering	3.85 (1.81)	34	4.00 (1.98)	42	3.66 (2.01)	32
Oral sex	5.57 (1.97)	112	6.02 (1.51)	167	4.63 (1.82)	179
Penile vaginal penetration	6.36 (1.58)	107	6.57 (1.39)	157	4.99 (1.87)	169
Penile anal penetration	2.79 (1.54)	33	3.00 (2.05)	37	3.00 (2.36)	30
Penetration without a condom	6.16 (1.80)	100	6.28 (1.66)	130	4.68 (2.10)	137
Mutual sex toy use	3.80 (1.86)	54	3.70 (2.02)	53	3.82 (1.95)	49
“Rough” sex	5.02 (2.06)	81	5.71 (1.75)	139	4.55 (1.82)	142
Group sex	1.67 (.58)	3	5.50 (4.95)	2	6.00 (-)	1

After assessing sexual activity, participants were presented with a series of sexual behaviours, asking if they had ever engaged in the behaviours with their partner, and if they had, how frequently they did so, using a 9-point Likert scale ranging from “Once” (1), to “Daily” (9). Example behaviours included “Passionate kissing”, “Mutual Masturbation”, “Penile-Vaginal Penetration”, “Penetrative Sex Without a Condom” and “Group Sex”. The prevalence and mean frequencies for all examined sexual behaviours are presented in Table 3.

Sexting Experiences

For the present study, a set of sexting definitions was created to assess a wide array of possible behaviours. This was done in order to examine sexting with a greater degree of specificity than in previous studies. Two texting behaviours were defined, as well as four photo-based sexting behaviours.

For each behaviour, participants were asked a series of four questions. First, participants were asked if they had ever engaged in the defined sexting behaviour, either by both sending and receiving, receiving only, or sending only. Next, they were asked if they had ever engaged in the behaviours with their current relationship partner. Participants were also asked if they had engaged in the defined sexting behaviour with their current relationship partner in the past thirty days, as well as their frequency of sexting for that behaviour using a 7-point Likert scale ranging from “Daily” (1) to “Less than once a month” (7).

Text-based sexting included Sexually Suggestive Text Messaging (SSTM), which was defined as “messages containing sexual innuendo, seductive language or indication of sexual desire or excitement sent or received via cellphone”, as well as Sexually Explicit Text Messaging (SETM), defined in the present study as “messages containing explicit language about sexual acts, "cybering" or sexual role-play sent or received via cellphone”.

Photo-based sexting behaviours included Sexually Suggestive Photos (SSP), defined as “a self taken, clothed photo of a sexual and flirtatious nature sent or received via cellphone. This includes: photos of clothed breasts/cleavage, crotch, or rear”, Partially Nude Photos (PNP), defined as “a self taken photo of a sexual nature sent or received via cellphone where the subject was unclothed, but no exposed breasts or genitalia were present. This includes: photos of individuals in their underwear or lingerie, or exposed chest, rear, thighs, etc”, Nude Photos (NP), defined as “a self taken photo of a sexual nature depicting exposed genitalia or breasts, but not those depicting sexual acts such as masturbation that was sent or received via a cellphone”, and Solo Sexual Act Photos (SSAP), defined as “a self taken photo of a sexual nature depicting the stimulation of the genitals or anus by things such as: fingers, hands, masturbators, dildos, or vibrators that was sent or received via cellphone”. In addition to the four questions asked for all sexting behaviours, an additional question was asked for the photo-based behaviours.

Participants were asked if they had ever sent a photo to their partner for each defined sexting behaviour with their face being visible.

Relationship and Sexual Satisfaction

The Global Measure of Relationship Satisfaction scale and Global Measure of Sexual Satisfaction (GMREL/GMSEX) scale are subscales of the Interpersonal Exchange Model of Sexual Satisfaction Scale developed by Lawrance and Byers (1992). The two scales measure individuals' satisfaction in both their relationship overall and the sexual aspects of their relationship specifically. For both sets of items, participants were measured on a 7-point Likert scale, indicating how they would describe their relationship/sexual relationship across five different dimensions. Example dimensions include “Very Bad” to “Very Good”, “Very Unsatisfying” to “Very Satisfying”, and “Worthless” to “Valuable”. For all dimensions, higher

values indicate a more favourable perception of the current sexual/general relationship with their partner. For scoring, all items are summed for each scale independently, with both having a possible range of 5 – 35 (Lawrance & Byers, 1992). The GMREL/GMSEX have been used frequently as stand-alone measures of relationship and sexual satisfaction, and have shown high reliability, $\alpha = .93$ and $\alpha = .90$ respectively (Peck, Shaffer, & Williamson, 2004). In the present study, both the GMREL and GMSEX showed high reliability, with $\alpha = .96$ and $\alpha = .96$ respectively.

General Communication (Self and Partner)

The Communication Function Questionnaire, by Burleson, Kunkel, Samter and Werking (1996), was included to measure the perceived quality of general communication in a participant's current relationship. The original "romance version" of the scale consists of 30 items across 8 subscales examining different communication skills with relatively high levels of internal consistency within each subscale, including "Conflict Management" ($\alpha = .75$), "Comforting" ($\alpha = .87$), "Ego Support" ($\alpha = .81$), "Regulative" ($\alpha = .73$), "Referential" ($\alpha = .82$), "Conversational" ($\alpha = .71$), "Narrative" ($\alpha = .81$), and "Persuasive" ($\alpha = .84$) (Burleson et al., 1996). Although originally a measure of perceived importance of individual skills, the scale has been used as a measure of perceived skill in previous research with high level of internal consistency among university aged individuals ($\alpha = .82$ for women, and $\alpha = .78$ for men) (Mark & Jozkowski, 2013). For the present study, the scale was modified into two distinct versions. One examined an individual's perception of their partner's communication skills, the Communication Function Questionnaire Partner (CFQP), while a modified version examined their perceptions of their own skills, Communication Function Questionnaire Self (CFQS). For both versions of the questionnaire, the first three subscales, Conflict Management Skills (five

items such as “My partner makes me believe our relationship is strong enough to withstand any conflicts or disagreements we might have.”), Comforting Skills (four items including “My partner can really help me work through my emotions when I'm feeling upset or depressed about something.”), and Ego Support Skills (three items such as “I make my partner believe in themselves.”), were included as they were rated as the three most important skills among romantic partners in the Burleson et al. (1996) study. Additionally, the measure of Persuasive Skills (three items including “I am able to get my partner to go along with what I want to do.”) was included in the present study as well, in order to examine how perceived persuasiveness interacted with sexting engagement. For all items, participants were measured on a 5-point Likert scale from “Strongly Agree” (1) to “Strongly Disagree” (5) (Burleson et al., 1996). The mean score for each skill type is then calculated, with higher scores indicating a lower perceived ability in that skill for the partner or the self (Burleson et al., 1996). In the present study, the scale items were reversed so that higher scores indicated higher perceived ability in the associated skill. The individual factors of the CFQS and CFQP showed high internal reliability in the present sample, with $\alpha = .82$ and $\alpha = .90$ for Conflict Management Skills on each measure respectively, $\alpha = .87$ and $\alpha = .91$ for Comforting Skills, $\alpha = .88$ and $\alpha = .92$ for Ego Support Skills, and $\alpha = .80$ and $\alpha = .82$ for Persuasive Skills.

Sexual Communication

The Dyadic Sexual Communication Scale (DSCS), developed by Catania (1986), was utilized to assess the quality of sexual communication within participants current romantic relationships. The DSCS consists of 13 items depicting statements regarding sexual communication between two individuals, with participants indicating how strongly they agree or disagree with the statements regarding their own relationships. Agreement was indicated on a 6-

point Likert scale ranging from “Disagree strongly” (1) to “Agree strongly” (6). Scoring involves summing the raw scores, with a range from 13 to 78, with higher values indicating higher perceptions of the degree of sexual communication in a relationship. Example items include “Some sexual matters are too upsetting to discuss with my sexual partner”, “Even when angry with me, my partner is able to appreciate my views on sexuality” and “I seldom feel embarrassed when talking about the details of our sex life with my partner” (Catania, 1986). The scale has shown strong internal reliability, $\alpha = .84$, as well as test re-test reliability, $r = .89$ (Catania, Pollack, McDermott, Qualls, Cole, 1996). The present study also found high internal reliability, $\alpha = .84$.

Adult Romantic Attachment Dimensions

The Experiences in Close Relationships Questionnaire (Short Form) (ECR-S) was utilized in the present study to assess self-reported adult attachment along two dimensions, attachment anxiety and avoidance. The ECR-S, developed by Wei, Russell, Mallinckrodt and Vogel (2007), consists of twelve items, three of which have been reverse coded. These items measure attachment anxiety and attachment avoidance separately, with six items measuring each construct. Participants indicate how well each item reflects their general feelings towards relationships on a 7-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (7). Example items avoidance dimension items include “I do not often worry about being abandoned” (reverse coded), and “I am nervous when partners get too close to me”, while attachment anxiety dimension items include items like “I need a lot of reassurance that I am loved by my partner”. Scores for both the Anxiety and Avoidant subscales are then summed, with higher scores indicating higher levels of the respective insecure attachment dimensions, with scores ranging from 6 to 42. The ECR-S has shown strong internal reliability, with $\alpha = .78$

for the Anxiety subscale, and $\alpha = .84$ for the Avoidance subscale, and a three-week test re-rest reliability of $r = .82$ and $r = .89$ for the two scales respectively (Wei et al., 2007). This scale has also been used in sexting research examining attachment, with strong internal reliability scores for both the Anxiety subscale ($\alpha = .72$) and the Avoidance subscale ($\alpha = .85$) (Drouin & Landgraff, 2012). The present study found moderate to strong internal reliability for both the anxiety, $\alpha = .70$, and avoidance dimensions, $\alpha = .79$.

Romantic Trust

The Dyadic Trust Scale (DTS), developed by Larzelere, and Huston (1980) was included after data collection began, in order to assess perceived levels of intimate trust in the participants' romantic relationships. The scale consists of eight items, three of which are reverse coded. Each item is assessed using a 7-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (7). The total scores of the scale are calculated by reversing the appropriate items, and summing the scores for each item, giving a possible range of 8-56. For this scale, higher total scores indicated higher levels of intimate trust. Example items include "My partner is primarily interested in his (her) own welfare" (reverse coded), "My partner is perfectly honest and truthful with me" and "My partner treats me fairly and justly". The scale shows strong internal reliability, with $\alpha = .93$ (Larzelere & Huston, 1980). The present study found moderate internal reliability with $\alpha = .73$.

Results

Table 4 identifies the means, standard deviations, and ranges for all major scales included in the present study. On average, and relative to the total range of the possible scores, the sample showed high satisfaction in their relationship, both overall and sexual, high perceptions of both their own and their partner's general communication skill, the high perceptions of the quality of

sexual communication within their relationship, moderate to low levels on the anxiety and avoidance attachment dimension as measured by the ECR, and high scores for dyadic trust.

Table 4
Summary of Descriptive Statistics for Major Study Factors

Measure	N	Range	M	SD
GMREL	487	8-35 (5-35)	31.76	4.97
GMSEX	487	5-35 (5-35)	31.31	5.47
CFQ				
Conflict management	487	1-5 (1-5)	4.43	0.6
Comfort	487	1-5 (1-5)	4.22	0.69
Ego support	487	1-5 (1-5)	4.5	0.62
Persuade	487	1-5 (1-5)	3.43	0.84
CFQP				
Conflict management	487	1-5 (1-5)	4.32	0.76
Comfort	487	1-5 (1-5)	4.15	0.85
Ego support	487	1-5 (1-5)	4.43	0.76
Persuade	487	1-5 (1-5)	3.52	0.91
DSCS	487	32-78 (13 -78)	63.46	10.01
ECR				
Anxiety	487	7-41 (6-42)	22.49	6.92
Avoidance	487	6-33 (6-42)	13.29	5.89
DTS	306	8-56 (8-56)	45.10	9.46

Note. The Dyadic Trust Scale (DTS) was included after the study had already commenced, meaning that not all participants completed this measure. Refer to Appendix N for abbreviation list.

General Sexting Hypotheses

Table 5

Summary of Lifetime Sexting Prevalence Across Sexting Styles

Sexting Type	Sent/Received	Received Only	Sent Only	No
SSTM	439	12	6	30
SETM	323	34	9	121
SSP	345	30	36	73
PNP	341	24	50	72
NP	292	61	29	105
SSAP	165	54	17	250

Note. Refer to Appendix N for abbreviation list.

Table 6

Summary of Lifetime Partner Sexting Prevalence Across Sexting Styles

Sexting Type	Sent/Received	Received Only	Sent Only	No
SSTM	425	10	7	13
SETM	309	17	8	31
SSP	314	20	51	29
PNP	305	12	65	33
NP	244	33	45	56
SSAP	131	26	19	60

Note. Lifetime Partner Sexting sample was composed of individuals who answered affirmatively to the Lifetime Sexting measure.

Refer to Appendix N for abbreviation list.

Table 7

Summary of Recent Sexting Prevalence Across Sexting Styles

Sexting Type	Sent/Received	Received Only	Sent Only	No
SSTM	279	25	27	109
SETM	209	21	9	96
SSP	169	14	63	139
PNP	173	15	62	132
NP	150	16	38	122
SSAP	68	18	11	80

Note. Recent Partner Sexting sample was composed of individuals who answered affirmatively to the Lifetime Partner Sexting measure.

Refer to Appendix N for abbreviation list.

As detailed in Table 5, the results of the present study support the hypothesis that lifetime sexting would be moderately prevalent in the sample. In the present sample, 93.8% of participants had engaged in sexually suggestive texting in their lifetime, 75.2% had sent and/or received a sexually explicit text message, 84.4% had sent and/or received a sexually suggestive photo message, 85.2% had sent and/or received a partially nude photo message, 78.4% had sent and/or received a nude photo, and 48.5% had sent and/or received a solo sexual act photo. Partner lifetime sexting was also extremely common. As seen in Table 6, 96.7% of lifetime SSTM sexters also sexted with their partner at least once (90.8 % overall), 91.3% of participants who had ever sent and/or received a SETM had done so with their partner at least once (68.6% overall), 93.7% of participants who had ever engaged in SSP based sexting had done so with their current partner at least once (79.1% overall), 92.1% of participants who sent and/or received a PNP in their lifetime had done so with their current partner (78.4% overall), 84.3% of lifetime nude sexters had sent/or received a nude photo from their partner at least once (66.1% overall), and 74.6% of participants who had sent a SSAP photo in their lifetime had done so with their current partner (36.1% overall). Consistent with the present studies hypothesis, a large majority of individuals who have ever sexted also report sexting with their partner at least once. This suggests that not only is sexting extremely common among young adults, but also that it is especially common within the context of relationships. It is worth mentioning that participants were not asked who they had sexted in the past, so lifetime sexters who had not sexted with their current partner may have sexted with a potential partner, or with a previous partner. Lifetime partner sexters were also asked if they had sent a sexting picture including their face to their romantic partner. For each photo-based sexting style except for SSAP, between 61.6% and 70.9% of lifetime partner sexters reported sending a picture where their face was visible (SSP: N

= 254 (66.3%), PNP: N = 270 (70.9%), NP: N = 197 (61.6%), SSAP: N = 68 (38.6%). Binary logistic regressions were performed on a sub-section of the sample who completed the dyadic trust scale to examine the relationships between face inclusion and relationship length, as well as dyadic trust. For SSP based sexting, the logistic regression analyses did not indicate any significant associations between face inclusion, relationship length or levels of dyadic trust, $X^2(2) = .23, p > .05$. Similarly, no associations were found for PNP, $X^2(2) = 1.75, p > .05$, or NP based sexting, $X^2(2) = .33, p > .05$. Relationship length and dyadic trust did not significantly predict face inclusion across the three photo-based sexting styles, contrary to the present studies hypothesis.

Recent sexting was also moderately prevalent in the present study as well. As seen in Table 7, recent sexting was relatively common overall, with only recent SSAP based sexting's prevalence falling substantially lower than the other measured styles (SSTM: 68%, SETM: 49.1%, SSP: 50.5%, PNP: 51.3%, NP: 41.9%, SSAP: 19.9%). Largely consistent with our hypothesis, for all behaviours except SSAP photos, a majority of individuals who had ever sexted had done so with their current partner in the past thirty days (SSTM: 72.4%, SETM: 65.3%, SSP: 59.9%, PNP: 60.2%, NP: 53.4%, SSAP: 41.1%). Although a majority of individuals who had ever sexted were recent sexters, it is worth noting that there were still between 27.6% and 58.9% of lifetime sexters who were not. This provides evidence for examining a distinction between lifetime and recent sexting, as roughly a third to a half of lifetime sexters had not sexted recently.

Although limited past research has examined recent sexting engagement in comparison to lifetime sexting engagement, there is little known about how these groups may differ. As a result, no explicit hypotheses regarding how the groups may differ were made. A series of exploratory

analyses were performed to determine if there were differences between lifetime sexters, meaning individuals who reported having ever sexted, but not sexting in the past thirty days, and recent sexters, individuals who reported having sexted in the past thirty days, were examined. A series of independent t-tests were performed to compare lifetime sexters and participants who had sexted recently on all major scales (GMSEX, GMREL, CFQS and CFQP subscales, ECR-S subscales, DSCS and DTS) as well as age and relationship length. Totals ns vary, as non-sexters were not included in the comparisons. Due to the high number of analyses performed, there was an increased likelihood of type I errors. However, as these analyses were exploratory in nature, the focus will be on the patterns in findings across the sexting styles, rather than individual significant results. Table 8 reports the results of the independent t-tests. For comparisons with significant Levene's issues, the corrected df and t statistic are presented.

Recent sexters tended to be significantly younger, as well as reporting being in shorter relationships. There is also a trend of significantly higher levels of reported satisfaction, and sexual communication, as well as general communication skill related to comfort for both the self and partner among recent sexters.

Table 8
Comparison of Means Between Lifetime and Recent Sexters

Sexting type	Measures	Levene's F	Lifetime sexters M (SD)	n	Recent sexters M (SD)	n	df	t
SSTM								
	Age	27.56***	22.46 (6.51)	125	20.22 (4.17)	327	1, 164.37	3.55***
	Rel.Len	14.82***	36.13 (41.86)	124	23.93 (28.26)	329	1, 167.02	2.99**
	GMSEX	9.92**	30.44 (6.03)	126	32.01 (4.77)	331	1, 187.48	-2.63 **
	DSCS	.521	61.15 (9.90)	126	66.13 (9.51)	331	1, 455	-3.96***

(continued)

Sexting type	Measures	Levene's F	Lifetime sexters M (SD)	n	Recent sexters M (SD)	n	df	t
SETM								
	Age	12.17**	21.99 (6.46)	126	20.54 (4.72)	238	1, 197.39	2.23*
	GMREL	2.33	31.04 (5.23)	127	32.25 (4.79)	239	1, 364	-2.24*
	GMSEX	13.11***	30.17 (5.84)	127	32.34 (4.68)	239	1, 213.58	-3.62***
	CFQS comfort	.478	4.09 (.69)	127	4.31 (.68)	239	1, 364	-2.80**
	CFQP comfort	1.46	3.99 (.86)	127	4.23 (.81)	239	1, 364	-2.65**
	DSCS	3.40	60.51 (9.88)	127	66.14 (9.06)	239	1, 364	-5.48***
SSP								
	Age	48.71***	22.26 (6.30)	167	19.70 (3.49)	241	1, 236.83	4.77***
	Rel.Len	25.23***	33.05 (39.63)	166	22.02 (18.30)	245	1, 213.10	3.35***
	GMREL	8.06**	31.08 (5.49)	167	32.37 (4.24)	246	1, 295.04	-2.54*
	GMSEX	9.28**	30.39 (5.77)	167	32.34 (4.89)	246	1, 316.46	-3.58***
	CFQS comfort	.99	4.13 (.71)	167	4.31 (.65)	246	1, 411	-2.66*
	CFQP comfort	6.52*	3.95 (.92)	167	4.26 (.77)	246	1, 312.84	-3.52***
	CFQS ego support	2.22	4.42 (.63)	167	4.55 (.61)	246	1, 411	-2.18*
	DSCS	6.08*	61.27 (10.50)	167	65.92 (8.91)	246	1, 316.62	-4.69***
	AVD	3.04	13.98 (6.08)	167	12.56 (5.49)	246	1, 411	2.46*

(continued)

Sexting type	Measures	Levene's F	Lifetime sexters M (SD)	n	Recent sexters M (SD)	n	df	t
PNP								
	Age	28.74***	21.99 (6.06)	164	19.85 (3.767)	246	1, 246.98	4.05***
	Rel.Len	7.12**	30.21 (33.57)	164	22.94 (23.20)	249	1, 264.49	2.42*
	GMREL	13.26***	30.86 (5.62)	165	32.45 (4.19)	250	1, 281.49	-3.12**
	GMSEX	13.51***	30.19 (6.09)	165	32.31 4.80	250	1, 293.23	-3.77***
	CFQS comfort	.985	4.13 (.71)	165	4.32 (.66)	250	1, 413	-2.79**
	CFQP comfort	6.04**	3.94 (.92)	165	4.30 (.75)	250	1, 301.97	-4.16***
	CFQP conflict management	8.44**	4.22 (.86)	165	4.40 (.66)	250	1, 288.55	-2.30*
	CFQP persuade	1.92	3.45 (.96)	165	3.64 (.87)	250	1, 413	-2.07*
	DSCS	.827	61.18 (9.98)	165	66.08 (9.29)	250	1, 413	-5.10***
	AVD	2.81	15.55 (5.40)	165	14.24 (5.19)	250	1,413	2.20*
NP								
	Age	43.79***	22.15 (6.39)	177	19.66 (3.24)	201	1, 253.07	4.68***
	Rel.Len	13.68***	30.48 (37.33)	176	23.25 (21.23)	203	1, 268.66	2.27*
	GMREL	5.29*	31.14 (5.29)	178	32.32 (4.54)	204	1, 351.02	-2.33*
	GMSEX	16.05***	30.39 (6.10)	178	32.63 (4.43)	204	1, 318.46	-4.16***
	CFQP comfort	3.14	3.96 (.90)	178	4.28 (.79)	204	1, 380	-3.62***
	DSCS	2.49	62.22 (10.22)	178	65.81 (9.42)	204	1, 380	-3.55***

(continued)

Sexting type	Measures	Levene's F	Lifetime sexters M (SD)	n	Recent sexters M (SD)	n	df	t
SSA								
	Age	6.10*	21.32 (5.18)	139	19.85 (3.95)	95	1, 229.28	2.46*
	CFQP persuade	.04	3.48 (.92)	139	3.74 (.87)	97	1, 234	-2.15*

Note. Sexters refers to both One-Way and Two-Way Sexters.

Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

These results provide evidence for a distinction between lifetime and recent sexters, however, due to issues with Levene's across many of the significant findings, these results should be interpreted with caution.

A series of Pearson correlations were performed between sexting frequencies among recent sexters for all measured sexting styles. As seen in Table 9, among recent sexters, sexting frequencies between styles were strongly positively correlated. Additionally, SSTM and SETM were more strongly related to each other than to the photo-based sexting styles. Similarly, the photo-based sexting seemed to show a cluster of higher correlations between each other compared to their relationships with the text-based sexting styles. These differences were explored through independent Pearson's R comparisons utilizing Fishers r-to-z transformation, as although there was crossover in the participants between the compared correlations, the crossover was not complete, and sample sizes differed between the correlations. The correlation between SSTM and SETM was significantly stronger than the correlation between SSTM and all other sexting styles. The correlations between the majority of the photo-based sexting styles did not significantly differ from each other. Only correlations with SSAP based sexting showed a

significant difference, indicating that the correlations of SSP, PNP and NP with SSAP based sexting were significantly lower than their correlations with each other.

Table 9
Pearson Correlations Between Recent Sexting Frequencies for All Sexting Styles

	SSTM	SETM	SSP	PNP	NP	SSA
SSTM	-	.798*** ^a n = 229	.571*** ^b n = 231	.581*** ^b n = 225	.521*** ^b n = 194	.663*** ^b n = 93
SETM		-	.562*** ^a n = 184	.547*** ^a n = 173	.562*** ^a n = 164	.697*** ^a n = 80
SSP			-	.873*** ^a n = 214	.829*** ^a n = 189	.568*** ^b n = 91
PNP				-	.834*** ^a n = 189	.618*** ^b n = 89
NP					-	.663*** ^a n = 92
SSA						-

Note. For each row, the superscript identifies significant differences between the correlation strengths as measured utilizing an independent correlation comparison. Correlations with different superscripts differed significantly at the $p < .05$ level or greater.

Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

As seen in Tables 5, 6 and 7, the majority of sexting, regardless of sexting style, appears to be “Two-Way”, meaning that most individuals engage in both the sending and receiving of sexting messages, consistent with our hypothesis.

Due to the majority of sexting taking place both ways, the present study focused only on those individuals who had engaged in both sending and receiving behaviours. One-way recent sexters, participants who exclusively sent or received, were found to differ significantly, though inconsistently, from two-way and non-recent sexters. Therefore, one-way and two-way sexters were not collapsed into a single “Sexters” group. Figure 1 details the prevalence rates of Two-Way sexting across the six sexting styles, and the three levels of specificity.

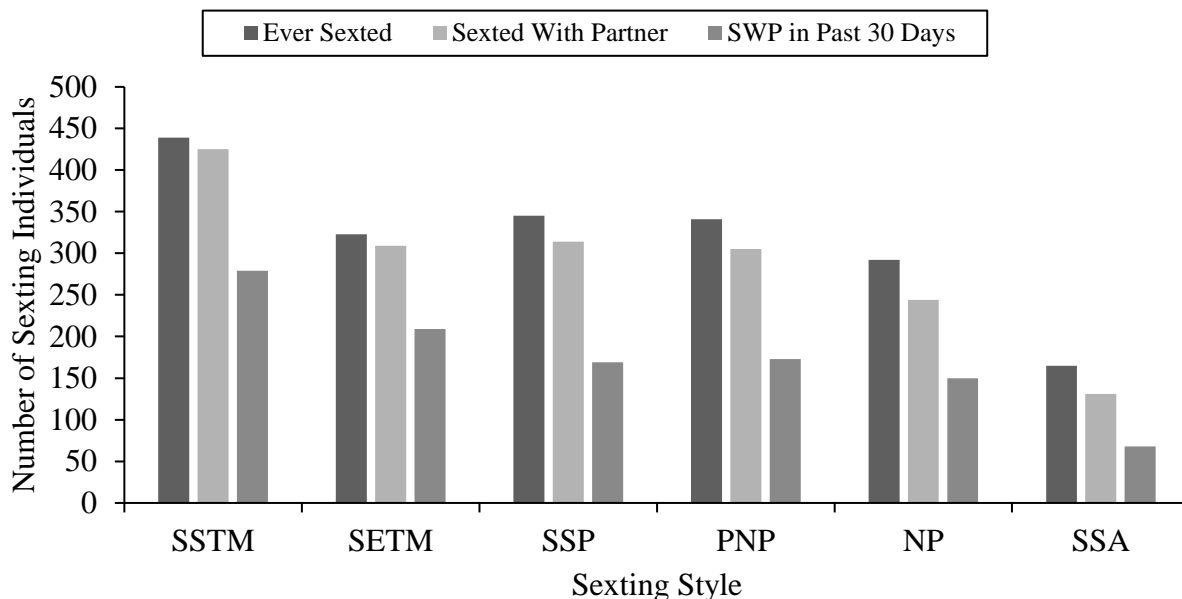


Figure 1. Prevalence of recent “Two Way” sexting across all measured sexting styles. Refer to Appendix N for abbreviation list.

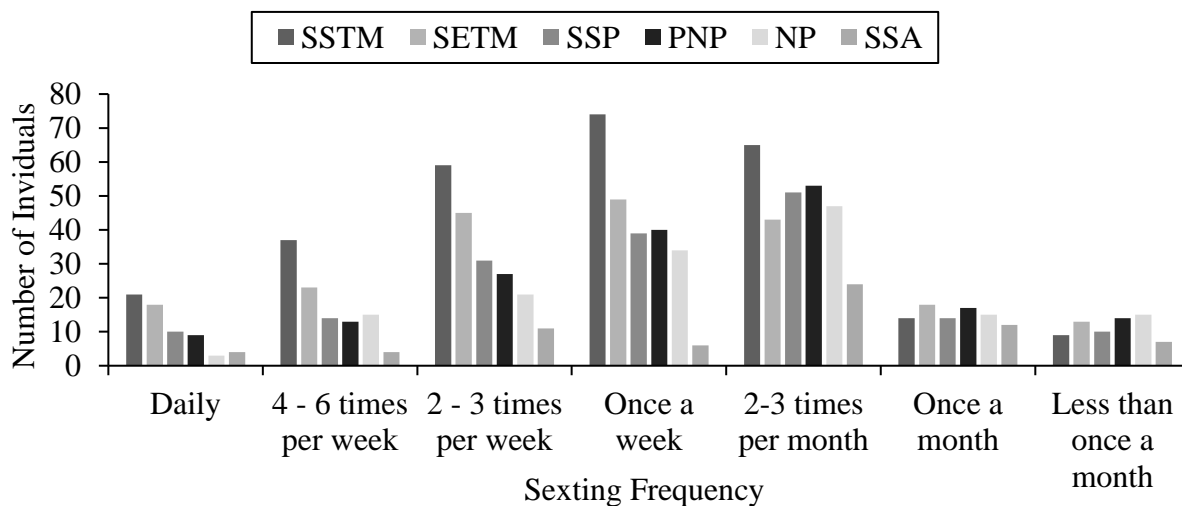


Figure 2. Frequency of sexting among recent two-way sexters. SSTM n = 279, SETM n = 209, SSP n = 169, PNP n = 173, NP n = 150, SSAP n = 68. Refer to Appendix N for abbreviation list.

Figure 2 depicts the reported sexting frequency for each sexting style among recent, two-way sexters. Although there is an overall trend of declining frequency across the sexting styles, sexting frequency appears to peak at “once a week” for text-based sexting, peak at “2-3 times per

month” for photo base sexting, before dropping for “Once a month” and “Less than once a month”. Although there was not a specific hypothesis for sexting frequency, this does provide evidence that the Recent Sexting category is largely capturing individuals who sext on a more regular basis.

When continuing onto the specific hypothesis analyses, it was decided that SSAP based sexting would not be included. Due to the low prevalence of SSAP sexting behaviours within the current sample, especially among recent sexters, as well as its inconsistent relationship with other sexting behaviours, this sexting style was left out of further analyses. The remaining analyses focused on recent and non-recent two-way sexters.

Sexting and Relationship Contexts

Sexting prevalence between relationship contexts.

In order to explore if recent sexting engagement was more common within non-cohabitating and long-distance relationships, the prevalence of both lifetime partner sexting and recent partner sexting for all sexting styles were graphed for each of the three levels of cohabitation status. For cohabitating sexters, as seen in Figure 3, SSTM and SETM appear to be relatively equal in terms of recent sexting engagement vs non-recent engagement. However, for all photo-based sexting, a greater percentage of sexters appear to have not done so recently.

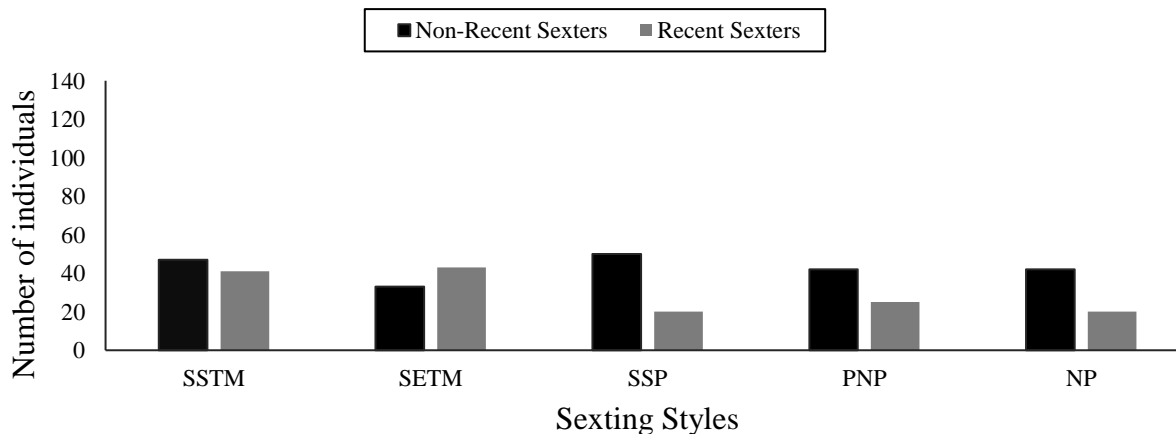


Figure 3. Prevalence of recent “Two Way” sexting among those in cohabitating relationships.

Refer to Appendix N for abbreviation list.

Among participants in GC relationships, as seen in Figure 4, recent sexting appears to be more common than non-recent sexting for text-based sexting, while there appears to be an equal number of recent vs non-recent sexters for photo-based sexting behaviours.

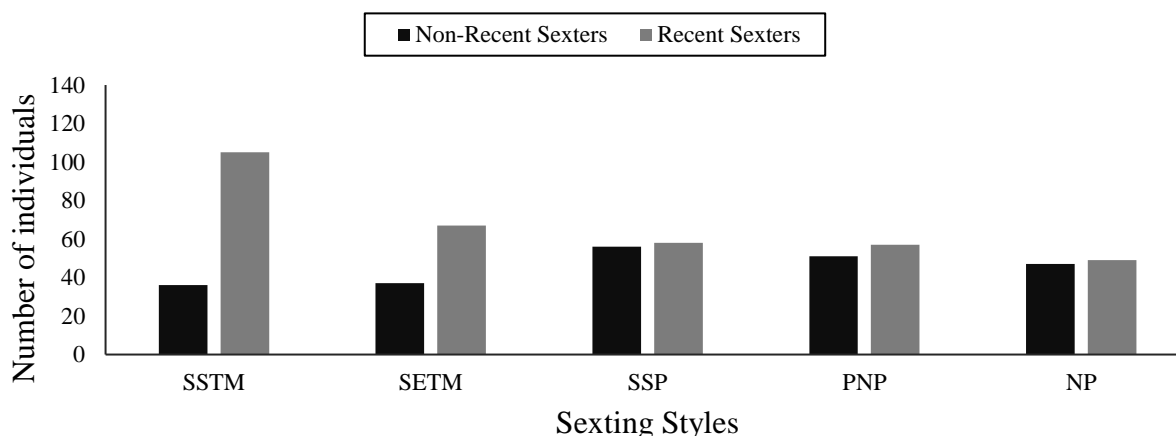


Figure 4. Prevalence of recent “Two Way” sexting among those in GC but non-cohabitating relationships. Refer to Appendix N for abbreviation list.

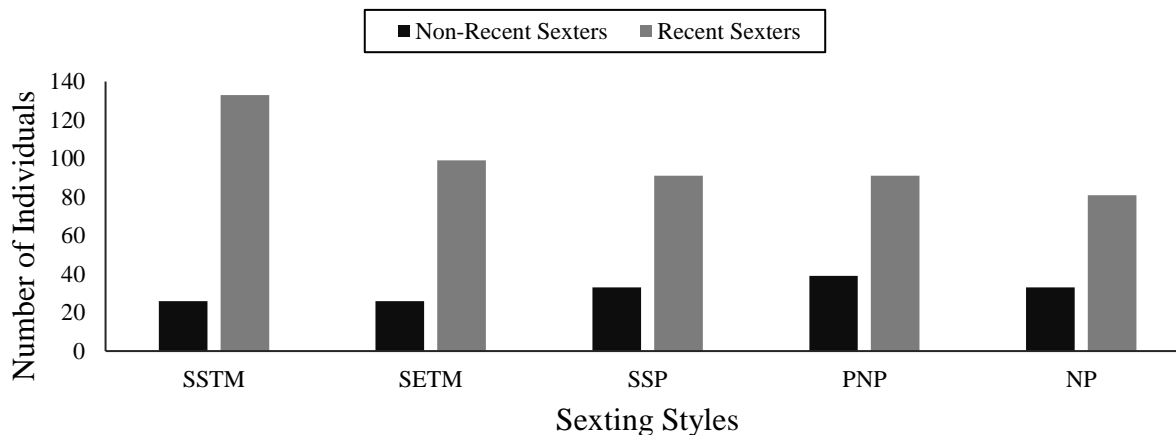


Figure 5. Prevalence of “Two Way” recent sexting among those in LDRs. Refer to Appendix N for abbreviation list.

Finally, as seen in Figure 5, recent sexting in all forms appears to be more common among participants in LDRs.

In order to assess if the patterns observed in Figures 3 – 5 were statistically significant, a series of chi square analyses were performed examining the relationship between recent sexting engagement and cohabitation status. Table 10 reports the results of these analyses.

Table 10
Report of Chi Square Analyses for Recent Sexting Engagement Across Cohabitation Statuses

Sexting Style	Count	Cohabiting	GC	LDR	n	X ²
SSTM						
Non-Recent Sexters	Observed:	47	36	26	109	39.23***
	Expected:	24.7	39.6	44.7		
	Percent:	43.1%	33.0%	23.9%		
Recent Sexters	Observed:	41	105	133	279	
	Expected:	63.3	101.4	114.3		
	Percent:	14.7%	37.6%	47.7%		
SETM						
Non-Recent Sexters	Observed:	33	37	26	96	12.44**
	Expected:	23.9	32.7	39.3		
	Percent:	34.4%	38.5%	27.1%		
Recent Sexters	Observed:	43	67	99	209	
	Expected:	52.1	71.3	85.7		
	Percent:	20.6%	32.1%	47.4%		
SSP						
Non-Recent Sexters	Observed:	50	56	33	139	37.46***
	Expected:	31.6	51.4	56.0		
	Percent:	36.0%	40.3%	23.7%		
Recent Sexters	Observed:	20	58	91	169	
	Expected:	38.4	62.6	68.0		
	Percent:	11.8%	34.3%	53.8%		
PNP						
Non-Recent Sexters	Observed:	42	51	39	132	20.30***
	Expected:	29.0	46.7	56.3		
	Percent:	31.8%	38.6%	29.5%		
Recent Sexters	Observed:	25	57	91	173	
	Expected:	38.0	61.3	73.7		
	Percent:	14.5%	32.9%	52.6%		

(continued)

Sexting Style	Count	Cohabiting	GC	LDR	n	X ²
NP						
Non-Recent Sexters	Observed:	42	47	33	122	25.45***
	Expected:	27.8	43.1	51.1		
	Percent:	34.4%	38.5%	27.0%		
Recent Sexters	Observed:	20	49	81	150	
	Expected:	34.2	52.9	62.9		
	Percent:	13.3%	32.7%	54.0%		

Note: A non-recent sexter was a participant who had sexted with their partner at least once, but had not done so in the past thirty days. All chi square (X²) analyses had df = 2. Percent represents the percentage of the total number of non-recent or recent sexters within each cohabitation category.

See Appendix N for abbreviation legend.

* $p < .05$, ** $p < .01$, *** $p < .001$

Recent SSTM engagement appears to relate to cohabitation status, $X^2(2) = 39.23, p < .001$. Cohabiting participants composed nearly half (43.1%) of non-recent sexters, and exceeded the expected count, while participants in long-distance relationships were under represented, composing only 23.9% of non-recent sexters. The number of non-recent sexting participants in geographically close relationships (33%) did not appear to differ substantially from the expected count. The number of cohabiting individuals reporting recent SSTM engagement was far lower than the expected count, only representing 14.7% of recent sexters. Participants in long-distance relationships comprised 47.7% of recent SSTM sexters, exceeding the expected count. Individuals in GC did not differ too heavily from the expected count, comprising 37.6% of recent sexters.

Recent SETM engagement appears to relate to cohabitation status, $X^2(2) = 12.44, p = .002$. Cohabiting participants exceeded the expected count for non-recent sexters, while participants in long-distance relationships were under represented, composing only 27.1% of non-recent sexters, falling below the expected count. The number of non-recent sexting participants in geographically close relationships (38.5%) did not appear to differ from the

expected count drastically. The number of cohabitating individuals reporting recent SSTM engagement was lower than the expected count, only representing 20.6% of recent sexters. Participants in long-distance relationships comprised 47.4% of recent SSTM sexters, exceeding the expected count. Individuals in GC did not differ to heavily from the expected count, comprising 32.1% of recent sexters.

Recent SSP engagement appears to relate to cohabitation status, $X^2(2) = 37.46, p < .001$. Cohabitating participants exceeded the expected count, representing 31.6% of non-recent sexters, while participants in long-distance relationships were under represented, composing only 23.7% of non-recent sexters, falling below the expected count. Although participants in geographically close relationships made up the largest percentage of non-recent sexters (40.3%) the number did not appear to differ substantially from the expected count. The number of cohabitating individuals reporting recent SSTM engagement was far lower than the expected count, only representing 11.8% of recent sexters. Participants in long-distance relationships comprised more than half of recent SSTM sexters (53.8%), exceeding the expected count. The number of individuals in GC was lower than the expected count, but only marginally, comprising 37.6% of recent sexters.

Recent PNP engagement appears to relate to cohabitation status, $X^2(2) = 20.30, p < .001$. Cohabitating participants exceeded the expected count, representing 31.8% of non-recent sexters, while participants in long-distance relationships were under represented, composing only 29.5% of non-recent sexters, falling below the expected count. Although participants in geographically close relationships made up the largest percentage of non-recent sexters (38.6%) the number did not appear to differ substantially from the expected count. The number of cohabitating individuals reporting recent SSTM engagement was far lower than the expected count, only

representing 14.5% of recent sexters. Participants in long-distance relationships comprised more than half of recent SSTM sexters (52.6%), exceeding the expected count. The number of individuals in GC was lower than the expected count, but only marginally, comprising 32.9% of recent sexters.

Recent NP engagement appears to relate to cohabitation status, $X^2(2) = 25.45, p < .001$. Cohabiting participants exceeded the expected count, representing 34.4% of non-recent sexters, while participants in long-distance relationships were under represented, composing only 27% of non-recent sexters, falling below the expected count. Although participants in geographically close relationships made up the largest percentage of non-recent sexters (38.5%) the number did not appear to differ substantially from the expected count. The number of cohabiting individuals reporting recent SSTM engagement was far lower than the expected count, only representing 13.3% of recent sexters. Participants in long-distance relationships comprised more than half of recent SSTM sexters (54%), exceeding the expected count. The number of individuals in GC was lower than the expected count, but only marginally, comprising 32.7% of recent sexters.

Across all sexting styles, a consistent pattern of findings was found. Non-recent sexters were over-represented in the cohabiting relationships and under-represented in the LDRs. Recent sexters, however, were under-represented in cohabiting contexts, while being over-represented in LDRs. These results suggest that recent sexting is more prevalent among individuals in long-distance relationships.

Sexting frequency among recent sexters was also compared across relationship contexts with the use of a one-way ANOVA. Due to the reduced sample size at this level of sexting engagement, especially among participants in cohabiting relationships, the present study was

not able to attain the appropriate number of participants in each cell to attain adequate power. As such, the following results should be interpreted cautiously. Table 11 reports the ANOVA results.

Table 11
Comparison of Sexting Frequencies for Recent Sexters Across Relationship Contexts

Sexting type	Cohabit	n	GC	n	LDR	n	df	F
SSTM	4.51 (1.40)	41	3.79 (1.34)	105	3.44 (1.44)	133	2, 276	9.44***
SETM	4.63 (1.53)	43	3.85 (1.46)	67	3.56 (1.61)	99	2, 206	7.21**
SSP	5.20 (1.51)	20	4.28 (1.31)	58	3.78 (1.47)	91	2, 166	8.70***
PNP	5.40 (1.41)	25	4.47 (1.24)	57	3.86 (1.52)	91	2, 170	12.32** *
NP	5.30 (1.42)	20	4.78 (1.26)	49	3.98 (1.47)	81	2, 147	9.66***

Note: See Appendix N for abbreviation legend.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$

Tukey HSD analyses were performed in order to observed where these differences emerged. The sexting frequency scale ranged from 1 (Daily) to 7 (Less than Once a Month). For SSTM, cohabitating recent sexters reported significantly lower average sexting frequencies than both the GC ($p = .015$) and LDR ($p < .001$) participants, who did not differ significantly ($p = .129$). For SETM, cohabitating recent sexters reported significantly lower levels of sexting compared to both the GC ($p = .029$) and LDR ($p = .001$) participants, who did not differ significantly ($p = .451$). For SSP based sexting, cohabitating recent sexters reported significantly lower sexting frequency than participants in the GC relationships, ($p = .035$) and participants in LDRs ($p < .001$), who did not differ significantly ($p = .099$). For PNP based sexting, cohabitating participants reported significantly lower levels of recent frequency than participants in the GC relationships, ($p = .020$) and participants in LDRs ($p < .001$). These two non-cohabitating groups

were also found to significantly differ, with participants in LDRs reporting higher sexting frequencies ($p = .030$). For NP based sexting, cohabitating participants' recent sexting frequency did not significantly differ from those reported by GC participants ($p = .336$). Participants in LDRs reported significantly higher recent sexting frequency than participants in the cohabitating, ($p = .001$) and in GC relationships ($p = .005$).

Sexual satisfaction and sexting across relationship styles.

Initially, the planned analysis was to examine the means of sexual satisfaction across recent sexting styles and relationship contexts using a 2x3 ANOVA. However, due to the breakdown of individuals into the six possible groups, there were not enough participants in certain categories in order to attain the appropriate power of 35 cases per cell for an expected medium effect, as recommended by Cohen (1992), as seen in Table 12. Specifically, there were

Table 12
Recent Sexting Engagement Across Cohabitation Statuses

Sexting Style	Cohabitating	Geographically Close	Long-distance
SSTM			
Yes	41	105	133
No	47	36	26
SETM			
Yes	43	67	99
No	33	37	26
SSP			
Yes	20	58	91
No	50	56	33
PNP			
Yes	25	57	91
No	42	51	39
NP			
Yes	20	49	81
No	42	47	33

Note. Refer to Appendix N for abbreviation list.

too few LDR individuals who had not sexted recently, as well as too few cohabitating individuals who had engaged in photo-based sexting in the past thirty days. A medium effect size was expected, as although it was predicted that sexting might play a more substantial role in sexual satisfaction for long-distance individuals, it was still expected that it would not be the main contributor to the overall perceptions of sexual satisfaction. Despite these potential power issues, the analyses continued, in order to assess any potential relationships between the three variables from an exploratory perspective.

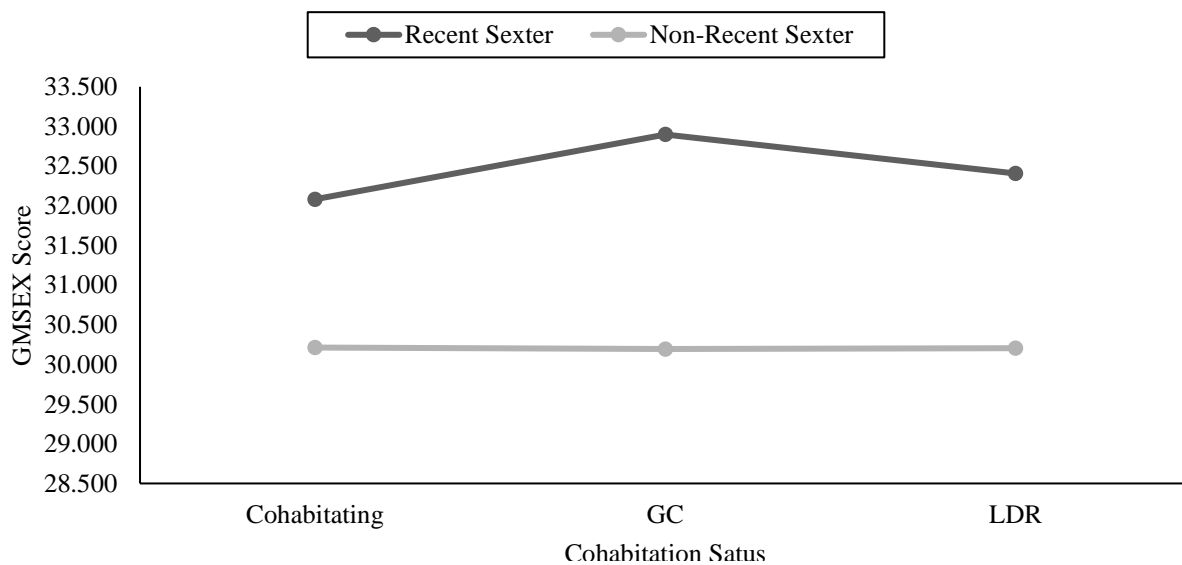


Figure 6. Interaction between recent SSTM engagement and cohabitation status for sexual satisfaction. Refer to Appendix N for abbreviation list.

When examining the interactions between SSTM based sexting and relationship context, Levene’s tests reveals that the variance across the six groups in sexual satisfaction was not found to be equal, $F = 6.35, p < .001$. This is may be due to issues regarding normality for the measure of sexual satisfaction and the low prevalence of sexting engagement in certain group categories. There was a significant main effect of recent sexting engagement, with recent sexters showing higher levels of satisfaction ($M = 32.46, SE = .33$) compared to non-recent partner sexters ($M = 30.20, SE = .48$), $F(1, 387) = 15.24, p < .001$. There was no significant main effect of

relationship context, suggesting that individuals in LDR ($M = 31.31, SE = .52$) did not differ significantly from participants in GC relationship ($M = 31.55, SE = .47$) or cohabitating relationship ($M = 31.15, SE = .52$), $F(2, 386) = .17, p = .845$. Finally, no interaction effect was found, suggesting that satisfaction does not differ across sexting engagement and relationship contexts, $F(2, 386) = .18, p = .832$. Figure 6 shows the means of the interaction between sexting engagement and relationship contexts

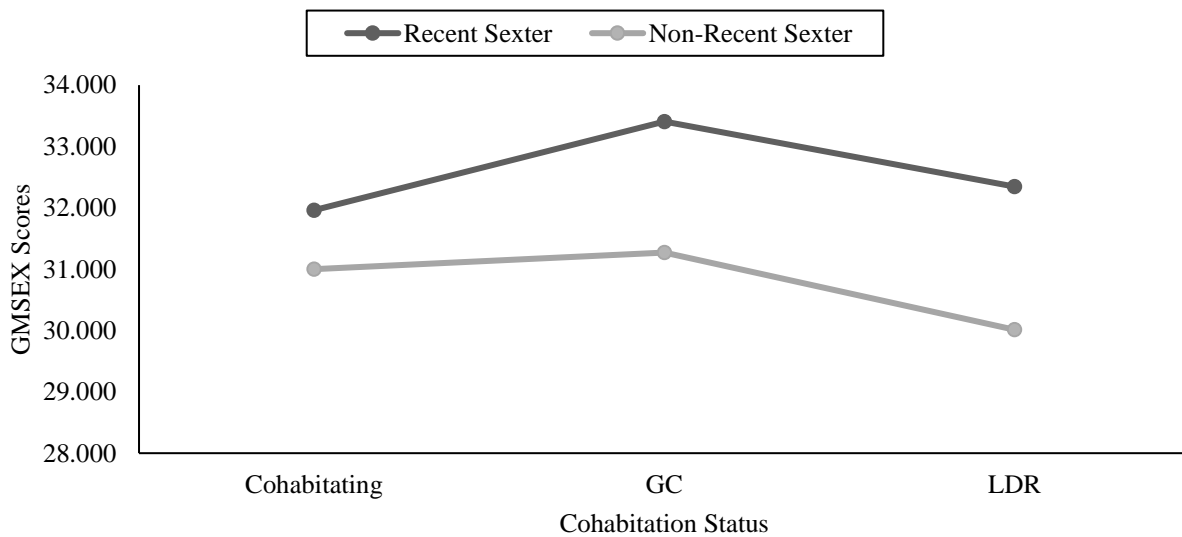


Figure 7. Interaction between recent SETM engagement and cohabitation status for sexual satisfaction. Refer to Appendix N for abbreviation list.

When examining the interactions between SETM based sexting and relationship context, Levene’s test revealed that the variance across the six groups was not equal, $F = 3.14, p = .009$. There was a significant main effect of recent sexting engagement, with recent sexters showing higher levels of satisfaction ($M = 32.57, SE = .35$) compared to non-recent partner sexters ($M = 30.76, SE = 0.49$), $F(1, 304) = 9.20, p = .003$. There was no significant main effect of relationship context, suggesting that those in LDRs ($M = 31.17, SE = .52$) did not differ significantly from participants in GC relationship ($M = 32.34, SE = .48$) or cohabitating relationship ($M = 31.48, SE = .55$), $F(2, 303) = 1.46, p = .234$. Finally, no interaction effect was

found, suggesting that satisfaction does not differ across sexting engagement and relationship contexts, $F(2, 303) = .48, p = .618$. Figure 7 shows the means of the interaction between sexting engagement and relationship contexts

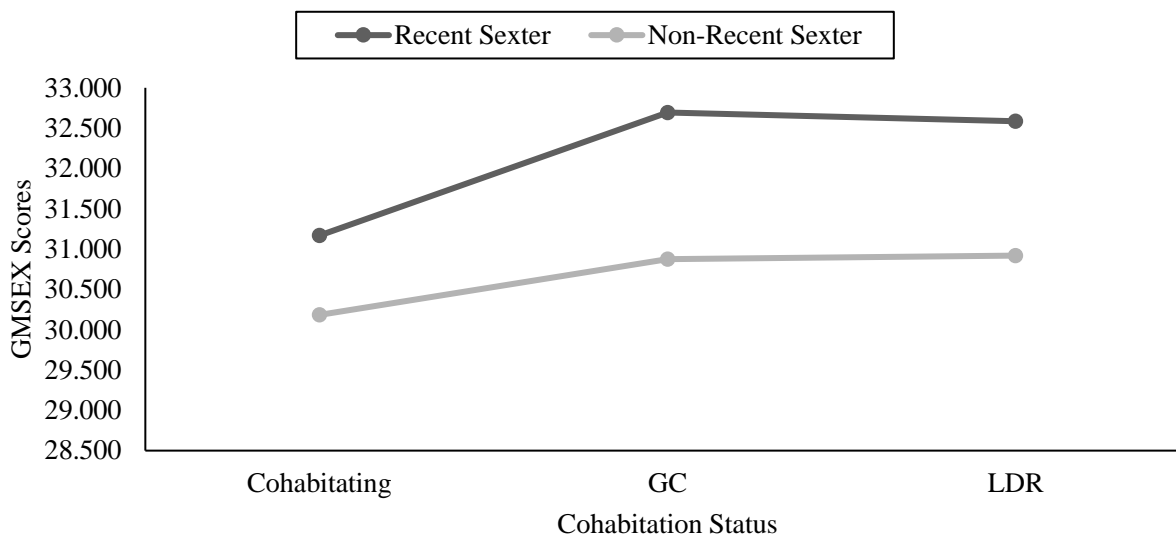


Figure 8: Interaction between recent SSP engagement and cohabitation status for sexual satisfaction. Refer to Appendix N for abbreviation list.

When examining the interactions between SSP based sexting and relationship context, Levene’s test revealed that the variance across the six groups was not equal, $F = 2.63, p = .024$. Despite these issues, the analyses continued, as it was more exploratory in nature due to the previously discussed issues. There was a significant main effect of recent sexting engagement, with recent sexters showing higher levels of satisfaction ($M = 32.14, SE = .48$) compared to non-recent partner sexters ($M = 30.66, SE = 0.45$), $F(1, 307) = 5.17, p = .024$. There was no significant main effect of relationship context, suggesting that participants in LDRs ($M = 31.75, SE = .52$) did not differ significantly from participants in GC relationship ($M = 31.78, SE = .48$) or cohabitating relationship ($M = 30.68 SE = .68$), $F(2, 306) = 1.02, p = .362$. Finally, no interaction effect was found, suggesting that satisfaction does not differ across sexting

engagement and relationship contexts, $F(2, 306) = .13, p = .878$. Figure 8 shows the means of the interaction between sexting engagement and relationship contexts

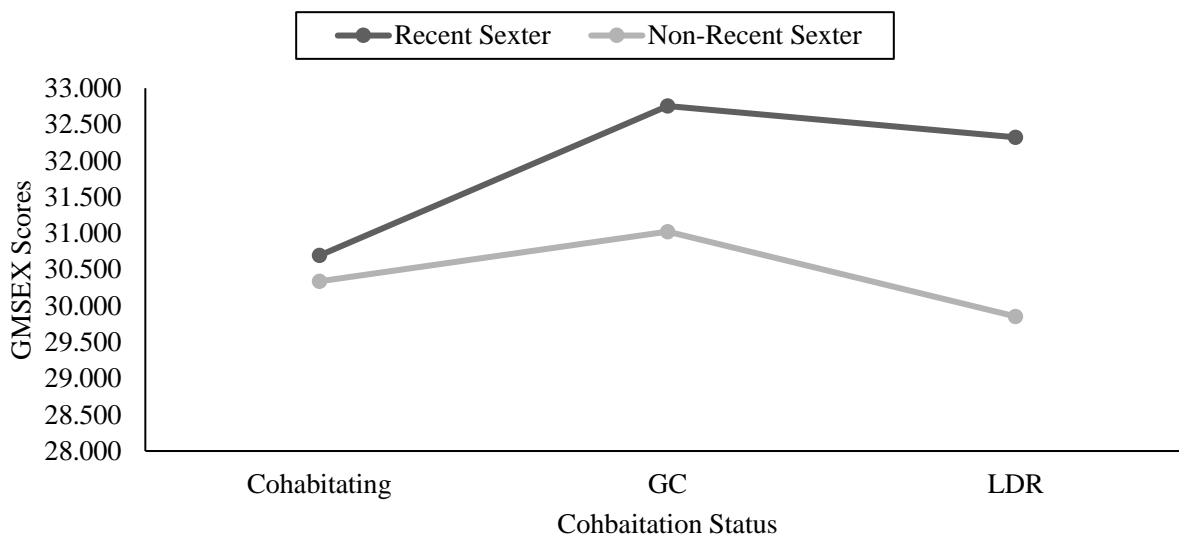


Figure 9. Interaction between recent PNP engagement and cohabitation status for sexual satisfaction. Refer to Appendix N for abbreviation list.

When examining the interactions between PNP based sexting and relationship context, a Levene’s test revealed that the variance across the six groups was not equal, $F = 2.27, p = .048$. There was a significant main effect of recent sexting engagement, with recent sexters showing higher levels of satisfaction ($M = 31.92, SE = .46$) compared to non-recent partner sexters ($M = 30.41, SE = 0.46$), $F(1, 304) = 5.46, p = .020$. There was no significant main effect of relationship context, suggesting that LDR ($M = 31.09, SE = .50$) relationships did not differ significantly from participants in GC relationship ($M = 31.89, SE = .51$) or cohabitating relationship ($M = 30.51, SE = .66$), $F(2, 303) = 1.46, p = .234$. Finally, no interaction effect was found, suggesting that satisfaction does not differ across sexting engagement and relationship contexts, $F(2, 303) = .80, p = .449$. Figure 9 shows the means of the interaction between sexting engagement and relationship contexts.

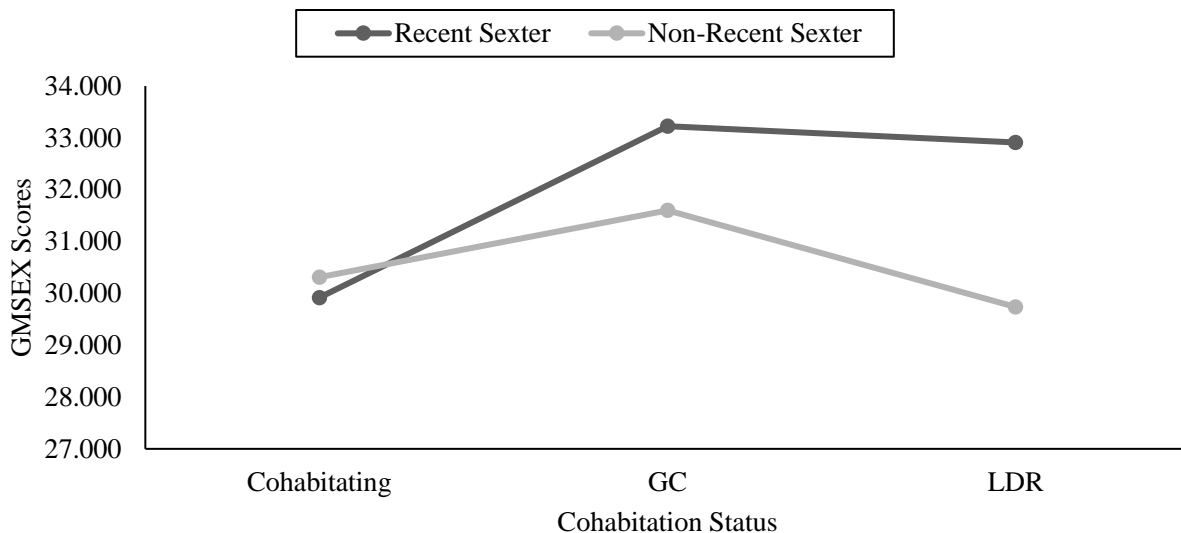


Figure 10. Interaction between recent NP engagement and cohabitation status for sexual satisfaction.

Refer to Appendix N for abbreviation list.

When examining the interactions between NP based sexting and relationship context, a Levene’s test revealed that the variance across the six groups was not equal, $F(5,266) = 4.45, p = .001$. There was a significant main effect of recent sexting engagement, with recent sexters showing higher levels of satisfaction ($M = 32.02, SE = .50$) compared to non-recent partner sexters ($M = 30.55, SE = 0.48$), $F(1, 271) = 4.49, p = .035$. There was also a significant main effect of relationship context. While LDR ($M = 31.33, SE = .54$) relationships did not differ significantly from participants in GC relationship ($M = 32.41, SE = .53$) or cohabitating relationship ($M = 30.11, SE = .71$), $F(2, 270) = 3.41, p = .035$, Tukey HSD revealed that there was a significant difference between the sexual satisfaction of GC and Cohabiting relationships ($p = .024$). However, no interaction effect was found, suggesting that satisfaction does not differ across sexting engagement and relationship contexts, $F(2, 270) = 2.02, p = .135$. Figure 10 shows the means of the interaction between sexting engagement and relationship contexts.

Although these analyses were exploratory in nature, it should be mentioned that due to the large number of analyses performed, there is an increased likelihood for type I errors. As a

result of this, the focus of these analyses will be on the pattern of findings, rather than specific findings. There was a relatively consistent pattern revealing a significant difference in sexual satisfaction across recent sexting engagement across all examined sexting styles, providing support for a relationship between the two variables. No effect of cohabitating status on sexual satisfaction was seen consistently, as expected from past research. This finding was of particular interest, as individuals in LDRs reported lower sexual frequency for several sexual behaviours compared to both cohabitating and GC individuals, as reported in Table 13.

Table 13
Comparison of Sexual Frequencies Across Relationship Contexts

Sexual Behaviour	Cohabit	n	GC	n	LDR	n	df	F
Passionate kissing	7.35 (1.86)	118	7.10 (1.42)	174	5.24 (2.15)	188	2, 477	65.51***
Vaginal fingering	5.59 (1.77)	111	6.21 (1.44)	159	4.63 (1.92)	182	2, 449	36.35***
Oral sex	5.57 (1.97)	112	6.02 (1.51)	167	4.63 (1.82)	179	2, 455	28.36***
Penetration without a condom	6.16 (1.80)	100	6.28 (1.66)	130	4.68 (2.10)	137	2, 364	29.40***
Penile vaginal penetration	6.36 (1.58)	107	6.57 (1.38)	157	4.99 (1.87)	169	2, 430	43.35***

Note: Sexting behaviour scale ranged from 1 (Once) to 9 (Daily)

* = $p < .05$, ** = $p < .01$, *** = $p < .001$

However, despite seeing an effect of recent sexting on satisfaction, and equivalent levels of sexual satisfaction despite limited physical sexual interaction, no consistent interaction effect between recent sexting engagement and cohabitation status was observed on sexual satisfaction, contrary to the expected hypotheses that sexting may have a greater relationship with satisfaction in non-cohabitating, especially LDRs.

Predictive power of relationship contexts.

Although the impact of cohabitation status has been assessed in relation to other forms of technologically mediated communication, its relationship with sexting engagement has not been explored. As such, the present exploratory analyses were performed in order to assess if recent sexting engagement could be predicted by relationship context. A series of logistic regressions (Tables 14 – 18) were performed on recent sexting behaviour for each sexting style. As there were three cohabitation levels (Cohabiting, Geographically Close (GC), and Long-distance Relationships (LDR)), dummy variables were utilized to assess the distinction between cohabiting and GC participants and between cohabiting and LDR participants. Relationship length was included as a controlling factor, as relationship length was shown to be shorter among recent sexters, and sexual satisfaction was included into the models to see if sexual satisfaction was predictive of sexting engagement after controlling for both relationship length and context. Due to the exploratory nature of the present analyses, the patterns of results will be assessed, rather than individual findings.

Table 14
Results of Logistic Regression for Recent SSTM Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction

	Variable	B	S.E.	Wald	df	OR	-2LL	NR2
Step1	Rel.Len(Z)	-.67	.15	19.72	1.00	.51***		
							429.80	.10
Step2	Rel.Len(Z)	-.49	.16	9.32	1.00	.61**		
	GC	9.52	.31	9.70	1.00	2.59**		
	LDR	1.50	.32	22.02	1.00	4.48***		
							407.14	.17
Step 3	Rel.Len(Z)	-.48	.16	9.00	1.00	.62**		
	GC	.91	.31	8.44	1.00	2.49**		
	LDR	1.50	.33	20.92	1.00	4.47***		
	GMSEX(Z)	.47	.13	12.26	1.00	1.59***		
							394.53	.21

Note. (Z) indicates that a variable has been standardized. N = 384.

Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 15
Results of Logistic Regression for Recent SETM Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction

	Variable	B	S.E.	Wald	df	OR	-2LL	NR2
Step1	Rel.Len(Z)	-.53	.16	11.53	1.00	.59**	360.85	.07
Step2	Rel.Len(Z)	-.46	.16	7.94	1.00	.63**		
	GC	.11	.33	.11	1.00	1.12	352.85	.10
	LDR	.82	.34	5.82	1.00	2.27*		
Step 3	Rel.Len(Z)	-.46	.16	7.85	1.00	.63**		
	GC	.02	.34	.01	1.00	1.02	344.72	.14
	LDR	.82	.35	5.70	1.00	2.29*		
	GMSEX(Z)	.41	.14	8.09	1.00	1.50**		

Note. (Z) indicates that a variable has been standardized. N = 302.

Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 16
Results of Logistic Regression for Recent SSP Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction

	Variable	B	S.E.	Wald	df	OR	-2LL	NR2
Step1	Rel.Len(Z)	-.66	.18	13.51	1.00	.52***	403.60	.08
Step2	Rel.Len(Z)	-.56	.20	7.64	1.00	.57**		
	GC	.73	.34	4.57	1.00	2.07*	373.14	.20
	LDR	1.75	.35	25.34	1.00	5.75***		
Step 3	Rel.Len(Z)	-.55	.20	7.46	1.00	.57**		
	GC	.68	.35	3.90	1.00	1.98*	366.79	.22
	LDR	1.70	.35	23.34	1.00	5.48***		
	GMSEX(Z)	.35	.14	5.95	1.00	1.42*		

Note. (Z) indicates that a variable has been standardized. N = 307.

Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 17
Results of Logistic Regression for Recent PNP Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction

	Variable	B	S.E.	Wald	df	OR	-2LL	NR2
Step1	Rel.Len(Z)	-0.54	0.17	10.18	1.00	0.58**	403.24	.06
Step2	Rel.Len(Z)	-.45	.18	6.17	1.00	.64*	387.37	.12
	GC	.45	.33	1.87	1.00	1.57		
	LDR	1.21	.33	13.40	1.00	3.34***		
Step 3	Rel.Len(Z)	-.44	.18	5.75	1.00	.65*	380.48	.15
	GC	.39	.34	1.32	1.00	1.47		
	LDR	1.18	.34	12.50	1.00	3.26***		
	GMSEX(Z)	.34	.14	6.50	1.00	1.41*		

Note. (Z) indicates that a variable has been standardized. N = 304.
 Refer to Appendix N for abbreviation list.
 * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 18
Results of Logistic Regression for Recent NP Assessing for Relationship Length, Relationship Context, and Sexual Satisfaction

	Variable	B	S.E.	Wald	df	OR	-2LL	NR2
Step1	Rel.Len(Z)	-.46	.16	8.47	1.00	.63**	361.99	.05
Step2	Rel.Len(Z)	-.31	.17	3.34	1.00	.73	341.97	.15
	GC	.65	.36	3.31	1.00	1.91		
	LDR	1.49	.36	17.29	1.00	4.43***		
Step 3	Rel.Len(Z)	-.31	.17	3.29	1.00	.73	335.07	.18
	GC	.53	.36	2.14	1.00	1.70		
	LDR	1.42	.36	15.32	1.00	4.15***		
	GMSEX(Z)	.37	.15	6.35	1.00	1.45*		

Note. (Z) indicates that a variable has been standardized. N = 271.
 Refer to Appendix N for abbreviation list.
 * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

For recent SSTM based sexting, the null model, before the inclusion of variables had a classification accuracy of 71.9. This high initial classification accuracy is likely due to the high percentage of recent sexually suggestive text messaging in the present sample. With the inclusion

of relationship length into the model, classification accuracy increased to 74.2%, accurately predicting 98.2% of recent sexters, while only accurately predicting 13.0% of non-recent sexters. Comparisons of the -2LL values indicated the inclusion of relationship length into the null model significantly improved the models fit, $X^2\Delta (1, N = 384) = 26.49, p < .001$. The inclusion of relationship context into the model significantly improved the model's fit, $X^2\Delta (2, N = 384) = 22.66, p < .001$, and slightly improved the classification accuracy of the model to 75.8%, accurately predicting 95.7% of recent sexters, while only accurately predicting 25% of non-recent sexters. The inclusion of sexual satisfaction at step 3 also improved the model's fit significantly, $X^2\Delta (1, N = 384) = 12.61, p < .001$. However, classification accuracy decreased with the inclusion of sexual satisfaction to 75%, accurately predicting 94.2% of recent sexters, while only accurately predicting 25.9% of non-recent sexters. The final model showed a moderate capacity to accurately predict recent sexting engagement, however, its improvement over the null model was marginal, despite significant improvements in the -2 log likelihood scores. In the final model, all predictors emerged as significant. An increase in relationship length by one standardized unit was reflective of a 38% lower likelihood of having sent a sexually suggestive text message to a partner in the past thirty days. Being in a geographically close relationship, as compared to a cohabitating relationship, was related to an 149% increased likelihood of recent sexually suggestive text messaging with a partner. Similarly, participants in a long-distance relationship were 347% more likely to be recent sexually suggestive texters. Finally, a standardized unit increase in sexual satisfaction was related to a 59% increased likelihood of recent sexting.

For recent SETM based sexting, the null model, before the inclusion of variables had a classification accuracy of 68.5. This high initial classification accuracy is likely due to the high

percentage of recent sexually suggestive text messaging in the present sample. With the inclusion of relationship length into the model, classification accuracy increased to 69.5%, accurately predicting 97.1% of recent sexters, while only accurately predicting 9.5% of non-recent sexters. Comparisons of the -2LL values indicated the inclusion of relationship length into the null model significantly improved the models fit, $X^2\Delta (1, N = 302) = 15.26, p < .001$. The inclusion of relationship context into the model significantly improved the model's fit, $X^2\Delta (2, N = 302) = 8.00, p = .018$, but did not improve the classification accuracy of the model. The inclusion of sexual satisfaction at step 3 also improved the model's fit significantly, $X^2\Delta (1, N = 302) = 8.13, p = .004$. However, overall classification accuracy again did not improve, remaining at 69.5%, accurately predicting 93.2% of recent sexters, while only accurately predicting 17.9% of non-recent sexters. Despite significant improvements to the model's fit as measured by improvements in -2LL scores, the model's classification accuracy did not substantially rise above the null model, and remained low, suggesting that the model is not effective at accurately predicting recent sexting engagement. An increase in relationship length by one standardized unit was reflective of a 37% lower likelihood of having engaged in sexually explicit text messaging with a partner in the past thirty days. Being in a geographically close relationship, as compared to a cohabitating relationship, was not predictive of recent sexually explicit text messaging. Participants in a long-distance relationship were 129% more likely to be recent sexually explicit texters. Finally, a standardized unit increase in sexual satisfaction was related to a 50% increased likelihood of recent sexually explicit text-based sexting.

For recent SSP based sexting, the null model, before the inclusion of variables had a classification accuracy of 54.7. With the inclusion of relationship length into the model, classification accuracy increased to 59%, accurately predicting 81% of recent sexters, while only

accurately predicting 32.4% of non-recent sexters. Comparisons of the -2LL values indicated the inclusion of relationship length into the null model significantly improved the model's fit, $X^2\Delta(1, N = 307) = 19.25, p < .001$. The inclusion of relationship context into the model significantly improved the model's fit, $X^2\Delta(2, N = 307) = 30.46, p < .001$, and increased the classification accuracy to 67.1%, accurately predicting 77.4% of recent sexters, and accurately predicting 54.7% of non-recent sexters. The inclusion of sexual satisfaction at step 3 also improved the model's fit significantly, $X^2\Delta(1, N = 307) = 6.35, p = .012$. However, overall classification accuracy again did not improve by much, increasing to 67.4%, accurately predicting 75.6% of recent sexters, and 57.6% of non-recent sexters. Despite significant improvements to the model's fit as measured by improvements in -2LL scores, and a moderate increase in classification accuracy, the final model's classification accuracy remained low, suggesting that the model is not effective at accurately predicting recent sexting engagement. In the final model, an increase in relationship length by one standardized unit was reflective of a 43% lower likelihood of being a recent sexually suggestive photo-based sexter. Being in a geographically close relationship, as compared to a cohabitating relationship, was related to a 97% increased likelihood of being a recent sexually suggestive photo-based sexter. Participants in a long-distance relationship were 448% more likely to be recent sexually suggestive photo-based sexters compared to cohabitating individuals. Finally, a standardized unit increase in sexual satisfaction was related to a 42% increased likelihood of recent sexting.

For recent PNP based sexting, the null model, before the inclusion of variables had a classification accuracy of 56.6. With the inclusion of relationship length into the model, classification accuracy increased to 59.2%, accurately predicting 85.5% of recent sexters, while only accurately predicting 25% of non-recent sexters. Comparisons of the -2LL values indicated

the inclusion of relationship length into the null model significantly improved the models fit, $X^2\Delta (1, N = 304) = 12.91, p < .001$. The inclusion of relationship context into the model significantly improved the model's fit, $X^2\Delta (2, N = 304) = 15.87, p < .001$, and increased the classification accuracy to 64.1%, accurately predicting 77.9% of recent sexters, and accurately predicting 46.2% of non recent sexters. The inclusion of sexual satisfaction at step 3 also improved the model's fit significantly, $X^2\Delta (1, N = 304) = 6.89, p = .009$. However, overall classification accuracy did not improve by much, increasing to 66.8%, accurately predicting 82% of recent sexters, and 47% of non-recent sexters. Despite significant improvements to the model's fit as measured by improvements in -2LL scores, and a moderate increase in classification accuracy, the final model's classification accuracy remained low, suggesting that the model is not effective at accurately predicting recent sexting engagement. In the final model, an increase in relationship length by one standardized unit was reflective of a 35% lower likelihood of being a recent partially nude photo-based sexter. Being in a geographically close relationship, as compared to a cohabitating relationship, was not predictive of recent partially nude photo-based sexting. Participants in a long-distance relationship were 226% more likely to be recent partially nude photo-based sexters compared to cohabitating individuals. Finally, a standardized unit increase in sexual satisfaction was related to a 41% increased likelihood of recent sexting.

For recent NP based sexting, the null model, before the inclusion of variables had a classification accuracy of 55%. With the inclusion of relationship length into the model, classification accuracy increased to 57.2%, accurately predicting 82.6% of recent sexters, while only accurately predicting 26.2% of non-recent sexters. Comparisons of the -2LL values indicated the inclusion of relationship length into the null model significantly improved the

models fit, $X^2\Delta (1, N = 271) = 11.01, p = .001$. The inclusion of relationship context into the model significantly improved the model's fit, $X^2\Delta (2, N = 271) = 20.02, p < .001$, and increased the classification accuracy to 65.7%, accurately predicting 77.9% of recent sexters, and accurately predicting 50.8% of non recent sexters. The inclusion of sexual satisfaction at step 3 also improved the model's fit significantly, $X^2\Delta (1, N = 271) = 6.90, p = .009$. However, overall classification accuracy again did not improve by much, increasing to 66.8%, accurately predicting 77.2% of recent sexters, and 54.1% of non-recent sexters. Despite significant improvements to the model's fit as measured by improvements in -2LL scores, and a moderate increase in classification accuracy, the final model's classification accuracy remained low, suggesting that the model is not effective at accurately predicting recent sexting engagement. In the final model, an increase in relationship length by one standardized unit was not related to a change in likelihood of being a recent nude photo-based sexter. Being in a geographically close relationship was not related to a change in likelihood of being a recent nude photo-based sexter. Participants in a long-distance relationship were 315% more likely to be recent nude photo-based sexters compared to cohabitating individuals. Finally, a standardized unit increase in sexual satisfaction was related to a 43% increased likelihood of recent nude sexting.

Due to the low levels of classification accuracy across all of the present models, the predictive power of the analysed variables can not be supported, and the analyses should be interpreted with caution.

Sexting and Communication

Examinations of Expected Interactions.

Before continuing to examine the hypothesised relationships between sexting, satisfaction and communication, correlations between the relevant relationship and communication variables

Table 19
Correlations Matrices of Relationship and Communication Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1 Rel.Len	-	-0.03	0.00	-0.03	-0.02	0.01	0.02	-0.07*	-0.04	-0.06	0.01	-0.02
2 GMREL		-	0.55 ***	0.40 ***	0.37 ***	0.43 ***	0.05	0.45 ***	0.44 ***	0.41 ***	0.03	0.35 ***
3 GMSEX			-	0.30 ***	0.33 ***	0.31 ***	0.05	0.33 ***	0.33 ***	0.29 ***	0.05	0.39 ***
4 CFQS conflict management				-	0.43 ***	0.51 ***	0.12 **	0.53 ***	0.39 ***	0.44 ***	0.12 ***	0.34 ***
5 CFQS comfort					-	0.50 ***	0.18 ***	0.43 ***	0.46 ***	0.41 ***	0.13 ***	0.34 ***
6 CFQS ego support						-	0.15 ***	0.49 ***	0.47 ***	0.49 ***	0.08 *	0.34 ***
7 CFQS persuade							-	0.10**	0.13***	0.14***	0.36***	0.11**
8 CFQP conflict Management								-	0.54 ***	0.54 ***	0.09 **	0.34 ***
9 CFQP comfort									-	0.54 ***	0.15 ***	0.30 ***
10 CFQP ego support										-	0.07	0.33 ***
11 CFQP persuade											-	0.04
12 Sexual communication												-

Note. Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

were examined to confirm that they were interacting as expected. These analyses were exploratory in nature, addressing expected patterns of interactions to confirm that the data from the current sample was similar to past findings. Due to issues regarding normality in several of the variables, Kendall's tau rank analyses were performed. Table 19 details the results of the analyses. Relationship length did not correlate strongly with any of the measures, including relationship and sexual satisfaction. It may be that due to the relatively short average relationship length in the present sample, the present study is not capturing the expected decline in satisfaction across length. Although the measures of satisfaction did not correlate with relationship length, there was a significant and strong positive correlations between both overall relationship satisfaction and sexual satisfaction, as expected. Furthermore, the two measures of satisfaction strongly and positively correlated with all measured communication skills both sexual and general, except for self and partner persuasion skill, also as expected, as this measure was not found to be important to romantic relationships in earlier studies. All general communication skills, both for both partner and self perceptions, were strongly correlated with each other. The only variables that did not follow this trend were self and partner persuasion skill, which although significantly correlated, appeared to show weaker relations to the other variables. Interestingly, sexual and relationship satisfaction were almost equally correlated with sexual communication, while relationship satisfaction appeared to have slightly stronger relationships with general communication. Overall, the variables appear to interact as expected.

Sexting frequency and communication.

In order to determine which communication variables to utilize in the regression analyses for both general and sexual communications, the correlations between sexting frequency and the communication variables were examined and are displayed in Table 20. These analyses were

performed on a sub-sample of the data, only examining participants who had recently sexted in some form (One-Way or Two-Way) with their current partner in the past thirty days. Kendal's Tau correlations analyses were performed due to issues with normality among the communication variables.

Table 20
Correlations Between Recent Sexting Frequency and Communication Variables

Variables	SSTM n = 335	SETM n = 239	SSP n = 246	PNP n = 250	NP n = 204
CFQS conflict management	.052	.097	.094	.066	.091
CFQS comfort	.025	.061	.087	.108*	.073
CFQS ego Support	.085	.057	.112*	.157**	.085
CFQS persuade	.054	.027	.030	.027	.010
CFQP conflict management	.073	.105*	.102*	.082	.099
CFQP comfort	.081	.067	.128*	.134**	.112*
CFQP ego support	.086	.078	.148**	.146**	.102
CFQP persuade	.001	.028	.099*	.087	.065
DSC	.124**	.145**	.099*	.120*	.082

Note. Frequency variables have been reversed for easier interpretation of correlations.

Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Although there were significant correlations between sexting frequency among recent sexters and several measures of communication skill and quality, the reported correlations were

not very strong and were inconsistent across sexting variables, especially when the number of correlations are taken into consideration. Sexual communication appears to be the most consistently related to sexting frequency, with all styles except for NP being positively correlated, suggesting a relationship between the two variables. There does appear to be some positive interactions between sexting, partner comfort skill and self/partner ego-support skill, although these relationships largely only appear for certain photo-based sexting styles.

Predictive power of communication.

In order to assess if communication skill and quality within a relationship predicts sexting engagement, series of hierarchical logistic regressions were performed on recent sexting behaviour for each sexting style, assessing the predictive power of general communication and sexual communication respectively on recent sexting engagement. Specifically, communication skills that showed significant correlations with sexting frequency, including self and partner comfort and ego support, as well as partner persuasion, and conflict management for general communication and dyadic sexual communication quality for sexual communication, were included into the models. Satisfaction was also included into the models to see if satisfaction emerged as a predictive variable after accounting for communication skill and quality.

General communication skill

The first series of regressions examined the predictive power of perceived general communication skills on sexting engagement. Only those communication skills that showed a correlation with sexting frequency were included in the present analyses. Self and partner comfort and ego support, as well as partner persuasion, and partner conflict management skill were included at stage 1 of the models, followed by relationship satisfaction in step 2, with step 3 including sexual satisfaction. All models showed poor classification accuracy, ranging from

62.9% to 72.2% for the final version of the models. Although perceived partner comforting skill did emerge as a positive predictor for all photo-based sexting styles, its odds ratios were relatively low, with an increase one standardized unit related to between a 46% and 56% increase in recent sexting likelihood, and was only minimally significant, with p values ranging from $p = .04$ to $p = .02$. Additionally, there was inconsistent model improvement as measured by $-2LL$ across sexting styles. Due to these issues, the present study can not support a relationship between general communication skill and recent sexting engagement.

Sexual Communication Skill

The second series of regressions examined the predictive power of dyadic sexual communication on recent sexting engagement. This factor was included at step 1 on the models, followed by sexual satisfaction in step 2, and overall relationship satisfaction in step 3. These factors were included to see if satisfaction measures still emerged as significant predictors after accounting for the quality of sexual communication in the participants relationship. Similarly to the findings for perceived general communication skill, all models showed extremely poor classification accuracy, ranging from 61.8% to 72.4% for the final version of the models, with improvements over the null model ranging from 0.5% to 8.7%, suggesting no substantial improvement to the models accuracy with the communication and satisfaction variables included. Dyadic sexual communication skill did emerge as a positive predictor for all sexting styles except for NP based sexting, though its odds ratios were relatively low, with an increase by one standardized unit relating to an increase in recent sexting likelihood by between 44% to 75%. Although the inclusion of dyadic sexual communication at step 1 did significantly improve the models according to the changes in $-2LL$ scores, neither measure of satisfaction significantly improved the model in steps 2 or 3, even when sexual satisfaction emerged as a significant

predictor for SSTM and NP based sexting. This may suggest that dyadic sexual communication accounts for some of the variance previously associated with sexual satisfaction. However, due to issues with classification accuracy, the present study can not support a predictive relationship between sexual communication skill and recent sexting engagement.

Sexting and Attachment Dimensions

To examine possible relationships between sexting, anxiety and avoidance, Kendal's tau correlations were examined between recent sexting frequency, anxiety and avoidance scores. Table 21 details the results of these analyses. No significant correlations emerged between sexting frequency and individuals' scores on the anxiety and avoidance dimensions.

Table 21

Correlations Between Recent Sexting Frequency and ECR-S Scores of Anxiety and Avoidance

Variables	SSTM N = 335	SETM N = 239	SSP N = 246	PNP N = 250	NP N = 204
ECR-S Anxiety	.005	.062	.057	.009	.040
ECR-S Avoidance	-.044	-.023	-.066	-.054	-.080

Note. Sexting frequency variables have been reversed for easier interpretation of correlations. Refer to Appendix N for abbreviation list.

As a follow up analyses, a one-way ANOVA comparing recent to non-recent partner sexters was performed examining the differences in ECR-S scores. As seen in Table 22, means of anxiety and avoidance did not consistently differentiate between recent and non-recent sexters. There was a trend towards a difference in anxiety, with one significant difference for SSTM, as well as near significant differences for SSP ($p = .054$), PNP ($p = .101$), and NP ($p = .099$). However, these results do not support the hypothesis that recent sexters may report higher scores on the anxiety and avoidance dimensions of the ECR-S. Although these results do not

support an interaction between the variables, the predictive power of the two variables for recent sexting engagement was also examined, in order to assess if a relationship emerged once both dimensions were accounted for.

Table 22
Comparison of Attachment Dimension Means Between Lifetime and Recent Sexters

Sexting type	Measures	Non-Recent Sexters M (SD)	Recent Sexters M (SD)	df	t
SSTM					
	ECR-S Anxiety	21.22 (7.30)	22.98 (6.94)	386	-2.21*
	ECR-S Avoidance	12.74 (5.63)	12.66 (5.50)	386	.13
SETM					
	ECR-S Anxiety	22.33 (7.52)	23.04 (6.92)	303	-.80
	ECR-S Avoidance	13.15 (5.55)	12.61 (5.59)	303	.78
SSP					
	ECR-S Anxiety	21.74 (6.84)	23.25 (6.87)	306	-1.93
	ECR-S Avoidance	13.52 (5.78)	12.34 (5.45)	306	1.84
PNP					
	ECR-S Anxiety	21.84 (6.84)	23.18 (7.18)	303	-1.64
	ECR-S Avoidance	13.07 (5.44)	12.66 (5.52)	303	.66
NP					
	ECR-S Anxiety	21.88 (7.35)	23.34 (7.09)	270	-1.65
	ECR-S Avoidance	13.17 (5.57)	12.48 (5.58)	270	1.02

Note. Refer to Appendix N for abbreviation list.

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Predictive power of attachment dimensions.

Because anxiety was found to have a trend towards a relationship with sexting engagement, it was added first to the model. Next, avoidance was added, followed by sexual satisfaction, to determine if satisfaction continued to be significant in the presence of these measures. Unfortunately, all models showed extremely poor classification accuracy, ranging from 61% to 72.9% for the final version of the models, with improvements over the null model ranging from 1% to 7.8%, and in the case of SETM based sexting, a decrease by .3%. These findings suggest that no substantial improvements were made to the null models' accuracies with anxiety scores, avoidance scores and sexual satisfaction scores included. Although sexual satisfaction did substantially improve the fit of the models as measured by the decrease in -2LL scores, neither anxiety nor avoidance scores significantly improved fit when introduced. Scores on the anxiety dimension did emerge as a relatively consistent positive predictor. For all sexting styles, except for SSTM, anxiety on its own was not predictive of recent sexting engagement. However, when avoidance was included in the model, scores on the anxiety dimension emerged as a significant positive predictor for all sexting styles except for SETM. In the final version of the models, an increase in scores on the anxiety dimension by a standardized unit related to an increase in recent sexting likelihood by between 39% to 42%, with probability values of between $p = .021$ and $p = .006$. Although this was a consistent finding in the regression analyses, and was consistent with past research regarding the relationship between the anxiety dimension of the ECR-S and sexting engagement, the substantial issues regarding classification accuracy, and inconsistent improvements to the fit of the model as measured by -2LL scores mean that the present study can not provide support for a predictive relationship between the levels of attachment anxiety and the likelihood of recent sexting engagement.

Discussion

General Sexting Hypotheses

Although sexting has garnered a fair amount of academic attention, there are some methodological concerns regarding existing sexting research that may limit how applicable the findings are. Some of these issues can be described as the “Have you ever sexted?” problem. The “Have you ever sexted?” problem refers to the lack of consistent specificity in sexting research regarding the behaviours themselves and the contexts in which they occur. Often there is a failure to distinguish between lifetime and recent sexting engagement, with only a small number of studies examining the prevalence of recent sexting, which may lead to issues with interpretation of results assessing the impact of sexting or its relationship to other variables (Drouin & Landgraff, 2012; Hudson & Fetro, 2015, Trub & Starks, 2017). One of the initial interests of the present study was to explore how sexting engagement changed when examining across different time scales and contexts, specifically distinguishing between lifetime and recent sexting.

In terms of lifetime sexting, the prevalence rates in the present sample were relatively high, ranging from 94% in its least explicit or risky form (SSTM) to 48% in its most potentially risky form (SSAP based sexting). However, this decrease for SSAP based sexting was substantial, dropping from 78% for the next lowest level of explicitness (NP based sexting). It should be noted that as sexting has been found to be more common within romantically attached individuals, our lifetime prevalence rates may not be reflective of the general young adult population (Delevi & Weisskirch, 2013; Hudson & Fetro, 2015).

The trend of decreasing prevalence roughly follows the expected trend seen in past sexting research where in as explicitness or potential risk increases, prevalence rates decrease

(Delevi & Weisskirch, 2013; Gordon-Messer et al., 2013; NCPTUP, 2008). However, two of the behaviour styles included in the present study did not follow this trend.

Firstly, sexually explicit text messages were less common than SSP and PNP based sexting, and roughly as prevalent as NP based sexting. It may be that because this style involved the direct discussion of sexual acts, individuals' willingness and desire to engage is similar to the more explicit or risky photo-based sexting styles. However, it may also be that this behaviour is simply a less common use for text-based sexting.

Secondly, SSP based sexting occurred at similar levels within the sample as PNP based sexting, despite PNP based sexting being more explicit or risky. Although these two behaviours examined different criteria, with SSP based sexting referring to clothed but flirtatious or suggestive photos, and PNP based sexting referring to photos where the subject is unclothed, but without exposed breasts or genitalia, it may be that there is a great deal of crossover in these styles. Both may serve a more flirtatious motivation than fully nude photos and so may occur at relatively similar levels.

The majority of individuals who had ever sexted in their lives had also sexted with their current relationship partner, with between 75% and 97% of lifetime sexters having sexted with their current partner at least once. This suggests that not only is sexting relatively common among young adults, but also that it is especially common within the context of relationships, as suggested by past research (Delevi & Weisskirch, 2013; Dir, Coskunpinar et al., 2013; Dir, Cyders, et al., 2013; Garcia et al., 2016; Perkins et al., 2014). It is worth mentioning that participants were not asked who they had sexted with in the past, so lifetime sexters who had not sexted with their current partner may have sexted with a potential partner, or with a previous partner. Additionally, due to the nature of the questions in the present study, it can not be said for

certain if individuals had sexted with someone other than their current partner. Future research may wish to examine the context of past sexting experiences as well.

Similar to Drouin and Landgraff (2012) and Hudson and Fetro (2015), and largely supporting the present study's hypothesis, a majority of individuals who reported ever sexting with their current partner also reported having done so with their partner in the past thirty days. Only SSAP based sexting fell below the expected majority. The results of the present study suggest that for most sexting behaviours, a moderate majority of individuals who have ever sexted have also sexted within the past thirty days. Furthermore, this finding appears to be driven by current sexting, not just infrequent sexting engagement coincidentally overlapping with the time scale provided by the question. Between 80% and 91% of individuals who reported recent sexting indicated that they sexted with their partner 2-3 times per month or more. This provides evidence that sexting is not only highly prevalent among partnered young adults, but also that for a sizable portion of sexters, it is also a relatively consistent part of their relationship dynamic.

Although the findings of the present study suggest that sexting is both common and relatively frequent among partnered young adults, it is worth noting that there is still a substantial number of lifetime sexters who were not current sexters. These findings suggest that, especially for more explicit or risky behaviours, a substantial minority of participants who report having ever sexted are not actively sexting. Additionally, the present study provides evidence that recent sexters and lifetime sexters are different in some substantial ways. Recent sexters were younger, often in shorter and more satisfied relationships, and reported higher qualities of sexual communication in their relationships. These findings suggest that when sexting studies only ask about lifetime sexting, especially for more explicit or risky behaviours, they may be capturing two distinct groups and collapsing them together.

Also, consistent with the present study's hypothesis, the greater majority of sexting engagement was "Two-Way". These results were consistent with the findings of Bauermeister et al. (2014) among MSM, as well as Gordon-Messer et al. (2013) among a heterosexual population. It appears that the majority of sexting involves both the sending and receiving of messages. However, it should be noted that for recent photo-based sexting, between 19 and 25% of the total sexting prevalence (one-way and two-way) were exclusively sending, a not insubstantial subsection of the sample. This may be an artifact of having a predominantly female sample, as some past research has shown that males were more likely to be receivers of sext messages, and that females were more likely to have sent a photo-based sext messages (Dir, Coskunpinar, et al. 2013; Wysocki & Childers, 2011). However, it should also be noted that these differences are not consistent across the sexting literature, with other studies failing to find gender differences (Drouin & Landgraff 2012). Although two-way sexting is the predominant form of sexting in the present study, it can not be said for sure that these two behaviours occurred together in the same sexting encounter, just that individuals had both sent and received each sexting style. However, that this trend exists among recent sexters as well does suggest that the two behaviours are closely connected in time. Future research may seek to examine what a typical sexting engagement looks like, such as how it is initiated, how it progresses and how it terminates. It is possible that sexting does not have one strict script for engagement. Sexting may involve the random sending of a sexual photo or message to "tease" future sexual engagement or to flirt with a partner, it may be the result of a conversation naturally progressing to a sexual point, or many other possibilities.

Face inclusion in photo-based sexting was also addressed in an exploratory hypothesis in the present study. Roughly two thirds of individuals who reported having ever sexted with their

partner also reported that they had included their face in these photos at least once. It was suspected that due to the greater potential risk of face inclusion, and an observed preference for greater commitment from a relationship partner before engaging in explicit or risky sexting behaviours seen in past research, that relationship length and dyadic trust would positively predict face inclusion. However, the results of the present study do not provide evidence for this hypothesis. Neither factor emerged as a significant predictor of face inclusion. This result may be an artifact of the limited nature of the question, as it only addressed if individuals had ever included a face picture, rather than addressing frequency. It is also possible that, as there was a high average for partner trust in the current sample, and all individuals were in committed relationships, there was not enough variation in trust for a difference to emerge. Future research may wish to examine if regular face inclusion is related to relationship length and partner trust, as well as exploring trust as a variable when the sexting partner is not a relationship partner, but a hook-up or casual partner.

Sexting and Cohabitation Status

As discussed earlier, there has been little research examining the interaction between sexting and cohabitation status. As such, the results presented here should be interpreted as exploratory in nature. However, some of the present study's results were consistent with past research examining other forms of technologically mediated communication in non-cohabitating relationships. Similar to the findings of Luo (2014) and Billeto et al. (2015), the present study found that recent sexting, especially more explicit or risky styles, were more common in LDRs compared to cohabitating and geographically close relationships. Furthermore, among recent sexters, participants in non-cohabitating relationships reported significantly higher frequency of sexting compared to participants in cohabitating relationships for all sexting styles except for

those involving NP, where only participants in LDRs reported higher frequency. Participants in LDRs also reported more frequent engagement in PNP based sexting compared to participants in GC relationships. Due to the issues with power, these results can not confidently be extended beyond the present study, but do provide some evidence that sexting engagement differs with cohabitation status. Future studies should consider cohabitation status as a possible factor affecting sexting engagement.

As separation from a partner increased, moving from cohabitating, to GC, to LDR, the prevalence of recent sexting styles shifted in an interesting manner. For cohabitating individuals, there was a trend of being under represented in the recent sexting group compared to the predicted values, suggesting that participants in cohabitating relationships were less likely to be recent sexters. It may be that due to the constant physical access these individuals have to their romantic partner, sexting, especially photo-based sexting, hold less of an appeal and so is less likely to be a common occurrence in their sexual lives.

For participants in GC relationships, there was a slight under-representation for all sexting styles except for sexually suggestive text messages in the recent sexting group compared to the expected values. For these individuals, access to the partner is more limited, possibly leading to an increased use of sexting while they are apart. However, due to their relative closeness, they are still able to have physical contact, if less frequently than individuals in cohabitating relationships, resulting in a roughly as expected engagement in recent sexting behaviours.

Finally, for individuals in LDRs, the number of recent sexters was over-represented compared to the expected values for all sexting styles. These individuals had significantly lower access to their romantic partners, which may account for an increased engagement in sexting

behaviours. This decreased access to the partner can be seen in the reported sexual frequency across several sexual behaviours between the three cohabitation groups. Individuals in cohabitating and GC relationships did not significantly differ from one another, but reported significantly higher levels of sexual frequency than individuals in LDRs. Due to the increased distance and infrequent physical access, sexting may not serve just as an occasional supplement to sexual behaviour but may be the primary form of sexual behaviour among individuals in these relationships contexts. Sexting may be serving as a replacement for sexual engagement for individuals in LDRs, allowing them to still engage in an intimate and sexual manner with their partner despite their separation. This aligns with the findings of Billeto et al. (2015) who found that not only were individuals in LDRs using SNS more frequently, they were also more likely to use them as a form of relationship maintenance, sustaining relationship satisfaction despite their separation. Jiang and Hancock (2013) found that cohabitating individuals reported equal levels of relationship satisfaction to their LDR counterparts despite lower amounts of communication with a partner, possibly sustained through the idealization of the limited forms of communication available. If sexting served a similar function, sexting engagement may be expected to interact with cohabitation status, such that sexting engagement would have the greatest effect on satisfaction among individuals in non-cohabitating relationships, specifically LDRs. Although the present study explored this possibility, due to low cell counts for non-recently sexting LDR individuals, and recently sexting cohabitating individuals, the present study's findings should be interpreted cautiously.

Although there was a consistent main effect of recent sexting engagement, wherein individuals who reported sexting in the past thirty days also reported higher sexual satisfaction, there was no consistent main effect of relationship context. This finding is consistent with the

possibility that sexting may serve a sustaining function for individuals in LDRs, as although these individuals report significantly lower levels of direct sexual engagement, they report being equally as satisfied with the sexual aspects of their relationships as individuals in GC and cohabitating relationships. However, there was no interaction effect found between sexting and cohabitation status, suggesting that although sexting is related to sexual satisfaction, that effect does not differ consistently across different levels of cohabitation. Sexting appears to be more common, and more frequent in LDRs, but this increased use does not appear to be tied to the sustaining of sexual satisfaction across geographic distance.

One area in which the present study did not focus that may be particularly relevant here is the use of video, specifically live-streaming video connection services such as Skype, Google Hangouts, Face-Time and Snap Chat. There may be significant differences between the use of these modalities and the use of phone-based sexting (either through text or photo) in which individuals have more control over what they send, and more time to consider what they wish to say. Neustaedter and Greenberg (as cited in Neustaedter et al., 2015) examined the use of video-streaming services among a small sample of individuals in long-distance relationships through qualitative interviews. The use of these modalities was common, with the majority of the study participants using a laptop to connect with their partner. These systems were used in a variety of ways, such as through sharing a virtual living space in which to spend time together, as well as through the sharing of “physical” intimacy. Although participants reported that the use of this technology was awkward in some cases, there were reports of increased emotional intimacy through its use (Neustaedter & Greenberg as cited in Neustaedter et al., 2015). Due to the live connection that is possible through these technological systems, there may be a greater impact on satisfaction through their use.

Another possibility is that sexting is just one way that individuals in LDRs help sustain sexual satisfaction. Borelli, Rasmussen, Burkhart and Sbarra (2015) discussed the use of relational savouring as a tool for individuals in LDRs. Relational savouring involves the act of focusing on and intensifying emotional experiences that are tied with a relationship partner. These can be emotional experiences from the past, present, or potential future. In the study, the researchers examined if being given a relational savouring task, focusing on a positive experience, would related to greater positive emotions. They found that for individuals with moderate to high levels of satisfaction, relational savouring led to higher levels of positive emotions and decreased levels of negative emotions after the fact compared to a control savouring group (Borelli et al., 2015). Although this study was more focused on positive emotions related to relationship satisfaction, there may be an aspect of “sexual savouring” at play for individuals in LDRs as well, remembering and enhancing past sexual encounters, or fantasizing about anticipated future sexual encounters when they are able to be with their partner physically. This savouring may be another tool that is used to sustain sexual satisfaction. Although sexting does appear to be connected to sexual satisfaction, it may not be the only tool used by individuals in LDRs, and so its absence or inclusion in a LDR setting may not have a noticeable impact on satisfaction. Despite this, the present study does provide evidence that sexting is more common and more frequent among individuals in LDRs, and that this increased use is not detrimental to the sexual satisfaction of the individuals in these relationships. In fact, sexual satisfaction was found to significantly predict recent sexting engagement even after controlling for relationship length, and cohabitation status, however, due to issues with the models, this finding should be interpreted cautiously.

Future studies may wish to try to replicate the interaction between sexting and satisfaction across cohabitation statuses to determine if the present study's findings were a by-product of the limited number of certain kinds of sexters in the current study.

Sexting and Communication

Although there is a large body of research examining the impact of both general and sexual communication on satisfaction, there were no studies found which examined how different communication styles related to sexting engagement. As such, the present study presents a preliminary examination of these factors.

Recent sexters reported not only higher levels of sexual satisfaction, but also reported consistently higher dyadic sexual communication quality in their relationship, as well as higher general communication skill perceptions for both the self and partner, though these differences were less consistent. Sexting frequency was also correlated with sexual communication (for all measures except for NP based sexting), though to a small degree.

Scores on the Dyadic Sexual Communication Scale also emerged as a consistent positive predictor of recent sexting engagement, even after sexual and relationship satisfaction were included into the models. For NP based sexting, although DSCS emerged as a significant predictor, it lost significance after the inclusion of sexual and relationship satisfaction. For both NP based sexting, as well as SSTM, sexual satisfaction also emerged as a significant positive predictor in the final model. Although the result was not consistent across all measured sexting styles, sexual satisfaction, which was shown to be a relatively robust predictor in earlier analyses, did not attain significance when included in the dyadic sexual communication model, suggesting DSCS better explained the variance originally attributed to sexual satisfaction. However, despite these significant findings, the models themselves showed poor classification

accuracy, and limited improvements over the null models. As a result, the present study can not confidently support the predictive relationships observed.

Due to the exploratory nature of the present analyses, the relatively consistent finding that DSC overtook the variance attributed to sexual satisfaction is worth discussing, despite the poor quality of the regression models in the present study. Although these findings should not be used to support the observed predictive relationships, they may serve as a guide for future research to explore the possible connections between sexting engagement, DSCS and sexual satisfaction. Additionally, the finding that DSCS skills were higher among recent sexters and the consistent, though small, relationships between DSCS scores and sexting frequency suggest a relationship between sexting engagement and sexual communication, even if the predictive relationship was not supported.

One possibility could be that sexting is a sexual behaviour effected by sexual communication. Like other forms of sexual behaviour, communication about the behaviour may help improve how satisfying the behaviour is in the future. Frederick et al. (2017) found that individuals who communicated their desires for certain behaviours, as well as provided praise and partner feedback regarding sexual behaviours reported more satisfying sexting encounters with their partners. Another study by Rosier and Tyler (2017) examined how a training program designed to improve sexual communication impacted sexual and relational satisfaction. Due to the nature of sex as a taboo topic in western culture, discussions of sex can be uncomfortable and potentially threatening to a relationship. Not only that, but this feeling of discomfort may lead to a lack of practice and therefore confidence in ones' own sexual communication skills. Consequently, sexual communication may be avoided in a relationship, negatively impacting sexual and relationship satisfaction. However, when individuals took part in a program designed

to improve sexual communication skills, such as providing positive and constructive feedback and encouragement, as well as demonstrating desired behaviours to a sexual partner, there was a significant improvement from baseline. At the end of the program, participants' coaching skills, as well as their ability to discuss sexual desires and dislikes improved, their apprehension regarding sexual communication decreased, and most importantly, their relationship and sexual satisfaction increased significantly from baseline measures (Rosier & Tyler, 2017). However, Jones, Robinson and Seedall (2017) observed that not only does greater sexual communication positively relate to sexual and relationship satisfaction, even after controlling for relationship length, but also with sexual frequency for men, and orgasm frequency for women. Sexual communication leads to not only increases in reported satisfaction, but increases in more observable measures of sexual satisfaction as well (Jones et al., 2017). This may be why there is not only a greater likelihood of recent sexting among individuals with higher reported sexual communication quality in their relationships, but why it is correlated with greater sexting frequency as well for most sexting behaviours. Sexual communication may be acting on these behaviours, increasing the enjoyment individuals receive through their engagement in them, leading to more frequent use.

However, another possibility is that sexting may serve as a form of sexual communication, rather than being acted on by it, providing a space where individuals can discuss sex with their partners. Frederick et al. (2017) included the sending of sexual photos as a form of sexual communication that was positively related to sexual satisfaction. Furthermore, sexting, by technical definition, is sexual communication, especially SSTM and SETM. If sexting is used as a form of sexual communication in relationships, it would be important to explore the potential benefits of sexting has as a means of sexual communication over traditional face-to-face

communication. Brown and Weigel (2018) found that couples were more likely to engage in sexual self disclosure, the disclosure of sexual desires and limits, if they perceived both a positive relationship and sexual self disclosure context. A positive relationship context consisted of high perceptions of partner responsiveness, the feeling that a partner is attentive to your needs, low levels of relationship uncertainty, how confident a person is in their relationship and their partner, high communication general quality, and high levels of relationship satisfaction. These conditions provide a safer space in which to share sexual conversations. Sex can be a potentially upsetting, embarrassing and anxiety inducing conversation topic, as the communicating partner is put in a position of vulnerability, not only for the self, but also for the relationship in general. Individuals who perceive their relationship as being very stable, supportive and satisfying, and who already have high communicative skill in that relationship may feel more comfortable discussing these more taboo or embarrassing topics. Furthermore, positive sexual self disclosure contexts, meaning a greater perception of the potential gains of sexual communication, limited perceptions of its risks, and greater depth of the disclosure was also predictive of greater sexual self disclosure, and more positive outcomes, specifically higher sexual satisfaction (Brown & Weigel, 2018). Recent sexters were found to report higher levels of sexual satisfaction, meaning that these behaviours appear to be more common when individuals feel more satisfied in their sexual relationships, similar to the proposed positive context for sexual communication. Furthermore, sexting may provide a safer context for sexual self disclosure due to its mediated nature. Sext messages are asynchronous, meaning that individuals are not required to immediately respond as you might in a face-to-face discussion. The distance created by sexting may allow people time to consider questions and responses, and limit the number of conversational cues involved, potentially limiting the perceptions of risk. This perception of

sexual communication risk, also called the perceived threat of sexual communication by Theiss and Estlein (2014) has been shown to result in the avoidance of sexual topics, or the use of indirect sexual communication. Sexting may allow individuals to openly discuss potentially taboo topics while minimizing the potential risks involved, such as rejection, or embarrassment. Sexting may also force people to be more direct about their sexual desires. Unlike face-to-face sexual engagement, where indirect or non-verbal methods can be used to indicate desires or dislikes, in sexting, the medium may require more direct behaviours.

It is also possible that both hypothesised directions are true. Sexting may be a sexual behaviour effected by sexual communication, while also serving as a medium through which couples can communicate about their sexual desires in a manner which is perceived of as being “safer”. Although the results of the present analyses should be interpreted cautiously, these findings do provide evidence for a relationship between sexting engagement, sexual communication and sexual satisfaction.

Sexting and Attachment Dimensions

Another of the goals of the present study was to examine the interactions between sexting and attachment dimensions while correcting for potential issues with past research. Although a consistent interaction between sexting and attachment anxiety, and to a more limited degree, avoidance, exists in the sexting literature, the shape of that interaction is inconsistent. Similar to research examining sexual behaviours overall, it has been suggested that sexting fulfils different attachment motivations for different relationship insecurities (Drouin & Landgraff, 2012; McDaniel & Drouin, 2015; Trub & Starks, 2017; Weisskirch & Delevi, 2011).

Weisskirch and Delevi (2011) found a very limited interaction between lifetime sexting and levels of attachment anxiety, with only romantically involved high attachment anxiety

individuals being more likely to engage in sending texts propositioning sexual activity from a partner. These individuals also reported feeling a higher expectation to sext with their partner. Drouin and Landgraff (2012) also found that individuals with high levels of reported attachment anxiety were more likely to have ever sent a text-based sext message, but did not find a predictive effect of attachment anxiety on the sending of a sexting photo. McDaniel and Drouin (2015) found that lifetime sexting was more common among married individuals with high levels of anxiety, but specifically found that more anxious husbands were more likely to send seminude or nude images than higher attachment anxiety wives. However, the present study was not able to find significant and reliable support for an interaction between recent sexting engagement and levels of attachment anxiety or avoidance.

There were no consistent significant differences between recent sexters and lifetime sexters on either the ECR-S subscales for attachment anxiety or avoidance, nor did either subscale significantly correlate with sexting frequency among recent sexters.

When exploring the relationships through logistic regression, there was a relatively consistent trend of findings examining the interaction between recent sexting and relational anxiety as measured by the ECR-S. Anxiety emerged as a significant predictor of recent sexting engagement for all but one sexting style, SETM. Although not significant on its own in most cases, once avoidance was included into the regression models, it emerged as a significant predictor. However, these predictive findings can not be supported in the present analyses due to the poor classification accuracy and inconsistent model fit improvements across the regression steps.

Davis et al. (2004) suggested that anxious individuals were more likely to have sex with their partners when they perceived a greater insecurity in their relationships, and that this sex was

more often motivated by desires for emotional closeness, as well as reassurance from their partner. Impett et al. (2008) also found that anxious individuals were more likely to be motivated to engage in sexual behaviours by a desire to please their partner, enhancing intimacy and expressing love. In short, sex is often used by individuals with higher levels of attachment anxiety as a form of hyperactivating strategy, a set of behaviours designed to illicit feelings of proximity, closeness and relational reassurance from their partners. Although the models' classification accuracies were poor, the present study did observe that greater levels of attachment anxiety was significantly related to a higher likelihood of recent sexting engagement. Additionally, as this study was the first to explore if levels of attachment anxiety could predict recent versus lifetime sexting engagement, it does provide initial support for the idea that active sexting may be partially motivated by attachment anxiety strategies, not just lifetime sexting experiences. When only lifetime sexting was examined, researchers could not say that sexting was actively being used by more anxious individuals in their relationships, just that they were more likely to have ever sexted. With the inclusion of sexting context, the findings of the present study suggest that anxious individuals may be more likely to be recent sexters. However, due to the issues with the logistic regressions, these findings should be interpreted cautiously, and should not be used as support for these relationships, but rather as proposals for future research to examine these interactions. Future research may wish to explore this potential interaction between sexting engagement and attachment dimensions again, to determine if the findings of the present study are reproducible and supportable.

The avoidance dimension has not been found to be as consistently related to sexting engagement in the past sexting literature. Weisskirch and Delevi (2011) found no predictive power for levels of attachment avoidance across all measured sexting styles. However, Drouin

and Landgraff (2012) found that not only was the level of attachment avoidance predictive of sending a sexual text message, but unlike the anxiety dimension, it was also positively predictive of having sent a sexting photo. Additionally, men with higher levels of avoidance were more likely to have engaged in both behaviours compared to similarly highly avoidant women.

However, McDaniel and Drouin (2015) found the opposite among older married couples, with levels of attachment avoidance being positively related to the frequency of sending seminude/nude photos among wives, while failing to attain significance for husbands.

Davis et al. (2004) found that level of attachment avoidance was negatively related to sexual motivations for closeness and reassurance, while positively associated with stress reduction and partner manipulation motives. Impett et al. (2008) found that for more avoidant individuals, sex was more likely to be motivated by avoiding conflict, such as an upset of angered partner, and for women, maintaining partner interest, but also negatively predictive of motivations relating to partner pleasure, intimacy and expressions of love. These motivations collectively are referred to as “deactivating” strategies, and are used to promote independence and emotional distance, and to distance themselves from their attachment figures when they are seeking closeness, often leading to less satisfying relationships (Impett et al., 2008). Sexting, in theory, and as partially supported by past research, may be used as a medium through which these deactivating strategies are conducted. Not only does sexting provide a literal distance between an individual and their partner, allowing for a possible reduction in intimacy and emotional closeness, but it may also allow individuals with higher levels of attachment avoidance to placate their partners needs in a manner that is not discomforting for themselves (Drouin & Landgraff, 2012). However, the present study did not find a significant relationship between recent sexting engagement and attachment avoidance. Although the findings of the

present analyses were not conclusive due to issues with classification, the fact that levels of attachment anxiety did emerge as a predictor, while levels of attachment avoidance did not is a finding worth exploring. One possibility is that sexting is not, as some studies have proposed, a sufficient method to engage in deactivating strategies. It is possible that the transmission of sexual texts and photos may carry with them a certain amount of intimacy, despite the individuals involved not being physically close to one another. Although there is no research examining this for sexting, there has been research exploring the relationships between other forms of CMC and relationship constructs such as satisfaction and intimacy.

Caughlin and Sharabi (2013) found that both face-to-face communication as well as CMC positively predicted measures of relational closeness and satisfaction, with both uniquely contributing to explanations of variance. Additionally, individuals who could better integrate these two mediums of communication, such as discussing or carrying on topics from one medium to the other, reported higher levels of relational closeness. However, exclusive use of CMC was negatively predictive of closeness (Caughlin & Sharabi, 2013). Sanchez, Munoz-Fernandez, and Ortega-Ruiz (2017) found that individuals who spent intimate and close time with their partners online were also more likely to report higher levels of relationship satisfaction, while online flirting with non-relationship partners and using communication strategies to manipulate a partner or display anger was negatively predictive of relationship satisfaction. Online intimacy also had the highest reported frequency of any of the examined online behaviours. This provides evidence that not only do online behaviours effect relationships, it also suggests that using technology as a medium for intimacy is not uncommon, nor is it ineffective (Sánchez et al., 2017). Morey, Gentzler, Creasy, Oberhauser, and Westerman (2013) specifically examined how communication use related with levels of attachment dimensions

across a two year period of time between 2009 and 2011. The researchers found that face-to-face communication, phone calls, and texting were the most frequent communication styles, and that texting, along with the use of social networking sites became more frequent over time. In line with the other studies, not only did overall communication positively relate with satisfaction as well as intimacy, but both phone and text messaging independently correlated as well, again providing evidence for the use of CMC to attain intimacy. The researchers also found that avoidance was negatively correlated with the use of phones and the use of text messaging. However, in regression analyses, there was a positive relationship between texting and relationship satisfaction for more avoidant individuals that did not attain significance for participants with lower reported avoidance scores (Morey et al., 2013).

These studies provide some evidence that individuals not only use CMCs as a form of communication, but that they also may be effective tools to promote intimacy when utilized properly. Sexting may similarly promote intimacy and closeness between relationship partners. Sanchez et al. (2017) found that online intimacy decreased as age and relationship length increased, which aligns with the findings of the present study where recent sexters were more likely to be younger and in more recently formed relationships. Sexting may be used to attain and promote intimacy and closeness, similar to face-to-face sexual experiences. If this is true, then avoidant individuals seeking to limit their interconnectedness with their relationship partners may not see sexting as an appealing set of behaviours, and so may not be more likely to engage in them (Impett et al., 2008).

Limitations

The present study did have limitations that should be addressed and considered when interpreting the results. Primarily, as mentioned earlier, the present study had some issues

regarding power for certain analyses, largely due to the high prevalence of recent sexting among participants in LDRs, and the low prevalence among cohabitating sexters. If the prevalence observed in the present study are reflective of actual population prevalence among partnered young adults, then it may be difficult to find a substantial number of non-recent sexters among individuals in LDRs, meaning that even if power were attained, there would still be a significant difference in cell Ns. In addition to sample size limitations, the present study also utilized a convenience sample of undergraduate psychology students. The use of this demographic is not uncommon in the sexting literature, however, the findings among this demographic may not be reflective of young adults in general. Although examining undergraduate students limits the age range of the sample, these behaviours are more likely to be performed by younger individuals, as seen in the decreased prevalence among older individuals in the study by McDaniel and Drouin (2015), making this age range the primary focus for most sexting research among non-adolescents. However, this sample selection technique also introduced a gender bias, where a large majority of the sample was female, with only 12% of the sample being male. Because of this, examining gender differences was not viable in the present study. Past research has shown mixed evidence regarding gender differences in sexting engagement, with some studies finding that males are more likely to send or receive (Gordon-Messer et al., 2013; Hudson, 2012), while others find that females are more likely to be senders (Englander, 2012; Wysocki & Childers, 2011). However, other studies have found no gender differences in sexting engagement across any sexting style (Drouin & Landgraff, 2012; Henderson & Morgan, 2011). As the present study was unable to effectively separate males from females, no support could be provided for gender differences in sexting engagement or frequency.

Another sample limitation of the present study was the average relationship length of the participants. Although some longer-term relationships were captured in the present study, there was a significant trend towards earlier relationships, with 63.6% of the sample being in a relationship of two years or less, and only 6.2% of relationships exceeding five years. As a result, the present study cannot speak to how sexting engagement changes over long term relationship lengths, or how it may impact these longer relationships. However, due to the relative newness of sexting behaviours, and generational differences in technology use and familiarity it may be that properly examining sexting in long-term relationships may have to wait until there are a greater number of significantly long-term relationships among current young adults (Poushter, 2017; Vulpe & Ilinca, 2017).

A focus of the present study was to increase the specificity of the questions examining sexting, as well as the context in which the behaviours occurred. Although past studies have included certain levels of specificity in their questions, the present study sought to cover three major points of specificity, specificity of sexting behaviours, specificity of sexting partner, and specificity of sexting time. However, the present study still leaves many points of specificity unexamined that may play an important role in how sexting is perceived of and engaged in a relationship context. Firstly, although the present study asked about lifetime sexting, it did not ask participants to clarify about their past sexting experiences. Asking this question may allow for further deciphering of how and why individuals sext. As an example, asking about past sexting experiences may reveal that individuals who have recently sexted in their current relationship also sexted in their past relationships, but not while they were single in between these relationship contexts, suggesting that although recent or current sexters sext more, this behaviour only emerges within a trusted relationship. Sexting appears to be more common within

the context of relationships, and there is some indication that people, especially women, would prefer to be in a more committed relationship before engaging in more explicit or risky behaviours, suggesting that for some individuals, active sexting may be a behaviour relegated to the relationship context (Delevi & Weisskirch, 2013). However, these researchers did not distinguish between lifetime and recent sexters, meaning that this finding may have been affected by the combination of these two groups. It may also be that individuals who are current sexters are more likely to be sexters overall, regardless of whether or not they in a relationship. Champion and Pederson (2015) found that individuals with more positive attitudes regarding sexting and who engaged in more sexual risks were also more likely to engage in more explicit or risky behaviours. It may be that current sexters are more primed to take risks, and with a more positive attitude towards the behaviour, are more likely to sext outside of the potential protection of a romantic relationship. Another important point of specificity in this case would also be to ask about sexting desire history, in addition to actual sexting history. As sexting can be classified as a sexual behaviour, hopefully requiring the consent of at least two parties, it may be that individuals who become recent sexters in relationships desire to sext when not in relationships, but lack access to a consistent partner to sext with.

A second question of specificity that was not examined that may be of importance to a relationship context would be assessing if there was sexting with an extra-relational partner while in a romantic relationship. Although the present study asked specifically about sext messages with a romantic partner, it is possible that some individuals also sext outside of their relationship. Wysocki and Childers (2011) found that among individuals using a website for seeking extra-marital affairs, sexting was relatively prevalent with up to 60% reporting some form of sexting behaviour. This suggests that sexting may be a vehicle for seeking out or

engaging in affairs, which may, expectedly, negatively impact a relationship. However, another level of specificity that could be included would be assessing if an individual has permission to sext outside of their current relationship, as some relationship styles, such as “open relationships” or polyamory, may allow partners to seek sexual gratification outside of the “primary” dyad. Distinguishing between unethical extra-relational sexting and permitted behaviours would allow for a more accurate examination of sexting engagement and its relationship to satisfaction.

Finally, the present study did not examine direct motivations for sexting. Future research may wish to examine if there are motivational differences between different levels of cohabitation, or between different levels of attachment dimensions. The results of the present study suggest that there may be different motivations for sexting engagement in these contexts, but can not conclusively state that there are. Champion and Pederson (2015) found that less explicit sexting was more likely to be motivated by flirtation and expressing sexual appeal to a partner, while more explicit behaviours were more likely to be motivated by relationship maintenance or enhancement, but did not find that individuals were motivated to sext by a desire to substitute sexual contact. Although the finding that sexting may serve flirtation, and enhancement motivations aligns with the proposed sexting motivations among anxious individual, the finding that sexting may not be seen as a substitute for sex conflicts with the proposed motivators for sexting among individuals in LDRs. However, it is important to note two points with the methodology of the study in relation to the present study. Firstly, the study examined the desire to substitute sex with sexting as a means of seeking a safer alternative to sex, rather than as a replacement for sex when a partner is inaccessible, and secondly, the study

did not examine cohabitation status as a factor (Champion & Pederson, 2015). Future research may wish to examine if there are motivational differences between cohabitation styles.

Finally, a limitation of the present study was its use of the ECR-S to examine relational attachment. Although the ECR in its many forms (including the ECR-S) is widely used in sexting research examining attachment (Drouin et al., 2017; Drouin, Tobin, & Wygant, 2014; Drouin & Landgraff, 2012; Drouin & Tobin, 2014; McDaniel & Drouin, 2015; Weisskirch & Delevi, 2011; Weisskirch, Drouin, & Delevi, 2017), the scale presents with some limitations that should be considered. Primarily, the scale was not created to, nor can it be retrofitted to assess Bartholomew's four factor model of attachment (Secure, Preoccupied, Fearful and Dismissing), limiting the range of attachment dimensions that it can assess to attachment anxiety and avoidance (Scharfe, 2016). The measure was constructed from an amalgamation of other scales examining the three-factor model of attachment, specifically examining attachment avoidance and anxiety (Mikulincer & Shaver, 2007). This means that it can not assess attachment security either, as no items directly address this style (Mikulincer & Shaver, 2007). Because of this, there is limited information examining how secure individuals differ in their sexting habits from insecure individuals, as the measure is unable to properly categorize that group. Due to the limited item pool from which the ECR was constructed, the measure is not only limited to the three-factor model of attachment, it is only able to directly capture two of these three factors (Mikulincer & Shaver, 2007). Furthermore, it has been proposed that it may not be able to capture either of these two dimensions completely (Scharfe, 2016). Future research may wish to utilize an updated attachment measure in conjunction with the ECR to not only allow for comparisons to earlier research, but also to better parse the interactions between the attachment dimensions and sexting engagement.

Conclusion

Despite the limitations presented, the present study still provides new insights into the role of sexting within the context of romantic relationships. Firstly, the present study found a nearly ubiquitous prevalence of lifetime and lifetime partner “Two-Way” sexting among partnered young adults for all sexting styles apart from SSAP based sexting. Importantly, however, the present study also found that for most sexting behaviours, a small to moderate majority of lifetime sexters had also sexted with their partner in the past thirty days, indicating that they were recent and potentially current sexters. This interpretation was supported by the finding that, for most sexting styles, the greater majority of recent sexters reported sexting 2-3 times per month or more, suggesting that sexting is a relatively common part of their romantic lives. These recent sexters were found to be not only younger, but were also in earlier relationships, were more sexually satisfied and perceived a greater quality of sexual communication with their partner. These findings provide support for the idea that sexting has become somewhat of a new normal in romantic relationships. However, it also provides evidence that focusing on lifetime sexting in research may not always be the most appropriate measure for sexting engagement. Future studies should distinguish between lifetime and recent sexters when examining the interactions between sexting and other factors.

The second contribution of the present study was an exploratory examination of the interactions between sexting and cohabitation status. It appears that as partner separation increases, from living together in the same home, to living separately but still close, to being separated by long distances, individuals’ readiness to engage in sexting increases. It was proposed that sexting may be used by non-cohabitating individuals to help sustain sexual satisfaction despite limited sexual access to their romantic partner. Although individuals in LDRs

were significantly more likely to have recently sexted, reported equal levels of sexual satisfaction to their GC and cohabitating counterparts, and, along with GC individuals, reported significantly higher frequencies of sexting compared to cohabitators, the present study did not find evidence that sexting sustained sexual satisfaction in LDRs specifically. Although sexters reported higher levels of satisfaction overall, there was no interaction between sexting engagement and cohabitation status, meaning that a lack of sexting was not related to significantly lower levels of satisfaction among individuals in LDRs compared to other cohabitation statuses. Although no evidence was found for a potential impact from recent sexting engagement, the present study still suggests that sexting is more common among non-cohabitating individuals, and that its use is not detrimental to satisfaction, and may be related to higher levels of sexual satisfaction overall.

The third contribution of the present study was the exploratory examination of interactions between sexting and communication, both general and sexual. Recent sexters were consistently found to report higher quality of dyadic sexual communication in their relationships, and reported higher, though inconsistent, perceptions of certain communication skills for both themselves and their partners. Sexual communication also significantly correlated, though to a small degree, with sexting frequency among recent sexters. Furthermore, sexual communication emerged as a positive predictor of recent sexting engagement for most sexting styles, overtaking the variance accounted for by sexual satisfaction. This finding suggests a possible interaction in which the relationship between sexting and satisfaction may be indirect, acting through sexual communication. However, due to issues with classification accuracy, the present study can not support these potential relationships. Sexual communication may act on sexting, increasing engagement likelihood by making it more sexually satisfying through discussions of sexual likes and dislikes, or sexting may be a method through which sexual communication occurs, providing

a positive context where individuals feel more safe discussing potentially taboo or embarrassing topics. Although the present study was unable to make definite conclusions about the relationships between sexting, communication and satisfaction, this area provides an exciting avenue for future sexting research.

Finally, the present study sought to expand upon past sexting research examining the interactions between sexting engagement and the level of attachment anxiety and avoidance. However, no consistent relationships were found between recent sexting engagement or frequency and the attachment anxiety or avoidance dimensions of the ECR-S. Anxiety scores did emerge as a relatively consistent predictor of recent sexting engagement once avoidance scores were included into the models, but the issues with classification accuracy and inconsistent model fit improvements do not allow for support to be derived from these findings. Furthermore, no consistent correlations were found between either attachment dimension and sexting frequency, nor were there group differences found between recent and lifetime sexters on either dimension.

Sexting is often discussed, both academically and more broadly, in terms of its potential risks, and its negative associations. With public discussions of unethical forwarding, “revenge porn”, scandals, as well as some studies showing links to sexual risk, depression and other negative mental health outcomes, it is not unreasonable to wonder why individuals would want to sext at all (Dake et al., 2012; Rice et al., 2012; J. Van Ouytsel et al., 2015; Van Ouytsel et al., 2014). However, from the results of the present and past studies, it appears that sexting has become just another common facet of romantic relationships. With this ubiquity, understanding why people sext, as well as how the behaviour interacts with other factors is increasingly important. The present study suggests that sexting’s role in relationships may change with the relationships context. Sexting may serve a flirtation role among individuals in cohabitating and

close relationships, while acting in a replacement role for sex among partnered individuals who are separated by long distances and unable to physically access their partners. Despite possible differences in roles, sexting appears to be related overall to more positive perceptions of the relationship. Specifically, recent sexting engagement appears to be related to higher perceptions of sexual communication quality, and higher perceptions of sexual satisfaction. Although this relationship does not appear to differ across cohabitation status, these findings suggest that regardless of the potential role it plays, recent “two-way” sexting is related to positive relationship contexts, and may be acting to assist with sexual communication, a behaviour that can often be ignored due to perceived embarrassment and risk to a relationship (Theiss & Estlein, 2014). Although sexting is a relatively new set of sexual behaviours, the findings of the present study suggest that it is not only incredibly common among partnered young adults, but also that it may be playing a positive role within their relationships.

References

- Bailey, J., & Hanna, M. (2011). The gendered dimensions of sexting: Assessing the applicability of Canada's child pornography provision. *Canadian Journal of Women and the Law*, 23, 405. Retrieved from <http://p2048-web2.trentu.ca.cat1.lib.trentu.ca:8080/login?url=https://search-proquest-com.cat1.lib.trentu.ca/docview/914157320?accountid=14391>
- Bauermeister, J. A., Yeagley, E., Meanley, S., & Pingel, E. S. (2014). Sexting among young men who have sex with men: Results from a national survey. *Journal of Adolescent Health*, 54, 606-611. doi: 10.1016/j.jadohealth.2013.10.013
- Billedo, C. J., Kerkhof, P., & Finkenauer, C. (2015). The use of social networking sites for relationship maintenance in long-distance and geographically close romantic relationships. *Cyberpsychology, Behavior, and Social Networking*, 18, 152-157. doi: 10.1089/cyber.2014.0469
- Borelli, J. L., Rasmussen, H. F., Burkhart, M. L., & Sbarra, D. A. (2015). Relational savoring in long-distance romantic relationships. *Journal of Social and Personal Relationships*, 32, 1083. doi: 10.1177/0265407514558960
- Brown, R. D., & Weigel, D. J. (2018). Exploring a contextual model of sexual self-disclosure and sexual satisfaction. *The Journal of Sex Research*, 55, 202-213. doi:10.1080/00224499.2017.1295299
- Champion, A. R., & Pedersen, C. L. (2015). Investigating differences between sexters and non-sexters on attitudes, subjective norms, and risky sexual behaviours. *The Canadian Journal of Human Sexuality*, 24, 205-214. doi: 10.3138/cjhs.243-A5
- Christopher, F. S., & Sprecher, S. (2000). Sexuality in marriage, dating, and other relationships:

- A decade review. *Journal of Marriage and the Family*, 62, 999-1017. doi: 10.1111/j.1741-3737.2000.00999.x
- Coffelt, T. A., & Hess, J. A. (2014). Sexual disclosures: Connections to relational satisfaction and closeness. *Journal of Sex & Marital Therapy*, 40, 577-591. doi: 10.1080/0092623X.2013.811449
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159. doi: 10.1037/0033-2909.112.1.155
- Currin, J. M., Jayne, C. N., Hammer, T. R., Brim, T., & Hubach, R. D. (2016). Explicitly pressing send: Impact of sexting on relationship satisfaction. *American Journal of Family Therapy*, 44, 143-154. doi: 10.1080/01926187.2016.1145086
- Dake, J. A., Price, J. H., Maziarz, L., & Ward, B. (2012). Prevalence and correlates of sexting behavior in adolescents. *American Journal of Sexuality Education*, 7, 1-15. doi: 10.1080/15546128.2012.650959
- Davis, D., Shaver, P. R., & Vernon, M. L. (2004). Attachment style and subjective motivations for sex. *Personality and Social Psychology Bulletin*, 30, 1076-1090. doi: 10.1177/0146167204264794
- Delevi, R., & Weisskirch, R. S. (2013). Personality factors as predictors of sexting. *Computers in Human Behavior*, 29, 2589-2594. doi: 10.1016/j.chb.2013.06.003
- Dir, A. L., Coskunpinar, A., Steiner, J. L., & Cyders, M. A. (2013). Understanding differences in sexting behaviors across gender, relationship status, and sexual identity, and the role of expectancies in sexting. *Cyberpsychology, Behavior, and Social Networking*, 16, 568-574. doi: 10.1089/cyber.2012.0545
- Dir, A. L., & Cyders, M. A. (2015). Risks, risk factors, and outcomes associated with phone and

- internet sexting among university students in the united states. *Archives of Sexual Behavior*, 44, 1675-1684. doi: 10.1007/s10508-014-0370-7
- Dir, A. L., Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior*, 29, 1664-1670. doi: 10.1016/j.chb.2013.01.039
- Drouin, M., & Landgraff, C. (2012). Texting, sexting, and attachment in college students' romantic relationships. *Computers in Human Behavior*, 28, 444-449. doi: 10.1016/j.chb.2011.10.015
- Drouin, M., & Tobin, E. (2014). Unwanted but consensual sexting among young adults: Relations with attachment and sexual motivations. *Computers in Human Behavior*, 31, 412-418. doi: 10.1016/j.chb.2013.11.001
- Drouin, M., Coupe, M., & Temple, J. R. (2017). Is sexting good for your relationship? it depends *Computers in Human Behavior*, 75, 749-756. doi: 10.1016/j.chb.2017.06.018
- Drouin, M., Tobin, E. & Wygant, K. (2014). "Love the way you lie": Sexting deception in romantic relationships. *Computers in Human Behavior*, 35, 542-547. doi:10.1016/j.chb.2014.02.047
- Englander, E. (2012). Low Risk Associated With Most Teenage Sexting : A Study Of 617 18-Year-Olds. *Massachusetts Aggression Reduction Center*, 5, 1-12. Retrieved from <http://webhost.bridgew.edu/marc/SEXTING AND COERCION report.pdf>
- Frederick, D. A., Lever, J., Gillespie, B. J., & Garcia, J. R. (2017). What keeps passion alive? sexual satisfaction is associated with sexual communication, mood setting, sexual variety, oral sex, orgasm, and sex frequency in a national U.S. study. *The Journal of Sex*

Research, 54, 186-201. doi: 10.1080/00224499.2015.1137854

Garcia, J. R., Gesselman, A. N., Siliman, S. A., Perry, B. L., Coe, K., & Fisher, H. E. (2016).

Sexting among singles in the USA: Prevalence of sending, receiving, and sharing sexual messages and images. *Sexual Health (Online)*, 13, 428-435. doi: 10.1071/SH15240

Gordon-Messer, D., Bauermeister, J. A., Grodzinski, A., & Zimmerman, M. (2013). Sexting among young adults. *Journal of Adolescent Health*, 52, 301-306. doi:

10.1016/j.jadohealth.2012.05.013

Henderson, L., & Morgan, E. (2011). Sexting and Sexual Relationships Among Teens and Young Adults. *McNair Scholars Research Journal*, 7, 31-39. Retrieved from

http://scholarworks.boisestate.edu/mcnair_journal/vol7/iss1/9/

Hudson, H. K. (2012). Factors affecting sexting behaviors among selected undergraduate students (Order No. AAI3478177). Available from PsycINFO. (1074679263; 2012-99150-591)

Hudson, H. K., & Fetro, J. V. (2015). Sextual activity: Predictors of sexting behaviors and intentions to sext among selected undergraduate students. *Computers in Human Behavior*, 49, 615-622. doi: 10.1016/j.chb.2015.03.048

Impett, E. A., Gordon, A. M., & Strachman, A. (2008). Attachment and daily sexual goals: A study of dating couples. *Personal Relationships*, 15, 375-390. doi: 10.1111/j.1475-6811.2008.00204.x

Jiang, L. C., & Hancock, J. T. (2013). Absence makes the communication grow fonder: Geographic separation, interpersonal media, and intimacy in dating relationships. *Journal of Communication*, 63, 556-577. doi: 10.1111/jcom.12029

Jones, A. C., Robinson, W. D., & Seedall, R. B. (2017). The role of sexual communication in

- couples' sexual outcomes: A dyadic path analysis. *Journal of Marital and Family Therapy*, 44, 606-623. doi:10.1111/jmft.12282
- Lenhart, A. (2009). Teens and sexting: How and why minor teens are sending sexually suggestive nude or nearly nude images via text messaging. Retrieved from Pew Internet & American Life Project. [http://www.pewinternet.org/ Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx).
- Lim, M. S. C., Vella, A. M., Horyniak, D. R., & Hellard, M. E. (2016). Exploring attitudes towards sexting of young people: A cross-sectional study. *Sexual Health (Online)*, 13, 530-535. doi: 10.1071/SH16029
- Luo, S. (2014). Effects of texting on satisfaction in romantic relationships: The role of attachment. *Computers in Human Behavior*, 33, 145-152. doi:10.1016/j.chb.2014.01.014
- Mark, K. P., & Jozkowski, K. N. (2013). The mediating role of sexual and nonsexual communication between relationship and sexual satisfaction in a sample of college-age heterosexual couples. *Journal of Sex & Marital Therapy*, 39, 410-427. doi: 10.1080/0092623X.2011.644652
- 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, 628-634. doi: 10.1089/cyber.2015.0334
- McGee, M. J. (2014). Is texting ruining intimacy? exploring perceptions among sexuality students in higher education. *American Journal of Sexuality Education*, 9, 404-427. doi: 10.1080/15546128.2014.976353
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change* Guilford Press, New York, NY.
- Montesi, J. L., Fauber, R. L., Gordon, E. A., & Heimberg, R. G. (2011). The specific importance

- of communicating about sex to couples' sexual and overall relationship satisfaction. *Journal of Social and Personal Relationships*, 28, 591-609. doi: 10.1177/0265407510386833
- Morey, J. N., Gentzler, A. L., Creasy, B., Oberhauser, A. M., & Westerman, D. (2013). Young adults' use of communication technology within their romantic relationships and associations with attachment style. *Computers in Human Behavior*, 29, 1771-1778. doi: 10.1016/j.chb.2013.02.019
- National Campaign to Prevent Teen and Unplanned Pregnancy. (2008). Sex and Tech. Retrieved from http://www.thenationalcampaign.org/sextech/pdf/sextech_summary.pdf.
- Neustaedter, C., Pang, C., Forghani, A., Oduor, E., Hillman, S., Judge, T. K., . . . Greenberg, S. (2015). Sharing domestic life through long-term video connections. *ACM Transactions on Computer-Human Interaction*, 22, 1-29. doi: 10.1145/2696869
- 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, 1-12. doi: 10.1080/01926187.2011.635134
- Peck, S. R., Shaffer, D. R., & Williamson, G. M. (2004). Sexual satisfaction and relationship satisfaction in dating couples: The contributions of relationship communality and favorability of sexual exchanges. *Journal of Psychology & Human Sexuality*, 16(4), 17-37. doi:10.1300/J056v16n04_02
- Perkins, A. B., Becker, J. V., Tehee, M., & Mackelprang, E. (2014). Sexting behaviors among college students: Cause for concern? *International Journal of Sexual Health*, 26, 79-92. doi: 10.1080/19317611.2013.841792
- Poushter, J. (2017). Smartphones are common in advanced economies, but digital divides remain. Retrieved from <http://www.pewresearch.org/fact-tank/2017/04/21/smartphones-are->

common-in-advanced-economies-but-digital-divides-remain/?utm_source=Pew+Research+Center&utm_campaign=f01dd8b2e6-EMAIL_CAMPAIGN_2017_04_26&utm_medium=email&utm_term=0_3e953b9b70-f01dd8b2e6-400

- Renfrow, D. G., & Rollo, E. A. (2014). Sexting on campus: Minimizing perceived risks and neutralizing behaviors. *Deviant Behavior, 35*, 903-920. doi: 10.1080/01639625.2014.897122
- Rice, E., Rhoades, H., Winetrobe, H., Sanchez, M., Montoya, J., Plant, A., & Kordic, T. (2012). Sexually explicit cell phone messaging associated with sexual risk among adolescents. *Pediatrics, 130*, 667-673. doi: 10.1542/peds.2012-0021
- Rosier, J. G., & Tyler, J. M. (2017). Finding the love guru in you: Examining the effectiveness of a sexual communication training program for married couples. *Marriage & Family Review, 53*, 65-87. doi: 10.1080/01494929.2016.1177629
- Sánchez, V., Muñoz-Fernández, N., & Ortega-Ruiz, R. (2017). Romantic relationship quality in the digital age: A study with young adults. *The Spanish Journal of Psychology, 20*, 10. doi: 10.1017/sjp.2017.20
- Trub, L., & Starks, T. J. (2017). Insecure attachments: Attachment, emotional regulation, sexting and condomless sex among women in relationships. *Computers in Human Behavior, 71*, 140-147. doi: 10.1016/j.chb.2017.01.052
- Van Ouytsel, J., Van Gool, E., Ponnet, K., & Walrave, M. (2014). Brief report: The association between adolescents' characteristics and engagement in sexting. *Journal of Adolescence, 37*, 1387-1391. doi: 10.1016/j.adolescence.2014.10.004
- Van Ouytsel, J., Walrave, M., Ponnet, K., & Heirman, W. (2015). The association between

- adolescent sexting, psychosocial difficulties, and risk behavior: Integrative review. *The Journal of School Nursing, 31*, 54-69. doi: 10.1177/1059840514541964
- Vulpe, S., & Ilinca, C. (2017). Types of phone usage: Age differences between younger and older persons. *Journal of Comparative Research in Anthropology and Sociology, 8*, 103-113.
- Weisskirch, R. S., & Delevi, R. (2011). "Sexting" and adult romantic attachment. *Computers in Human Behavior, 27*, 1697–1701. doi:10.1016/j.chb.2011.02.008
- Weisskirch, R. S., Drouin, M., & Delevi, R. (2017). Relational Anxiety and Sexting. *Journal of Sex Research, 54*, 685–693. doi:10.1080/00224499.2016.1181147
- Wysocki, D. K., & Childers, C. D. (2011). "Let my fingers do the talking": Sexting and infidelity in cyberspace. *Sexuality & Culture: An Interdisciplinary Quarterly, 15*, 217-239. doi: 10.1007/s12119-011-9091-4

Appendices

Appendix A: Consent Form

Was it Good for You? Sexting and Satisfaction.

Erik Bridle BSc, Trent University

Terry Humphreys, PhD, Trent University: terryhumphreys@trentu.ca

Purpose of the Study: Information regarding sexting in the context of relationships is important in understanding this relatively new expression of sexuality, and its role in modern romantic relationships. The purpose of the present study is to examine the relationships between sexting and various elements surrounding romantic relationships, including relationship satisfaction, sexual satisfaction, sexual behaviors, communication quality and attachment styles.

Description of the Study: This study will consist of participating in a number of online questionnaires regarding several measures of relationship status and quality, as well as sexting behaviors. Basic demographic information about the participant will also be collected at this time. The researchers are currently only seeking individuals over the age of 17, who are currently in a monogamous romantic relationship. Participation in this study will take approximately 45 to 55 minutes.

Potential Risks: One potential risk or discomfort in this study is that some individuals may feel uncomfortable discussing elements of their relationship, such as sexual activity, or their sexting history with their partner. However, please note that your responses are completely anonymous and confidential, and that your responses to this survey will not be linked with you or any personally identifying information. Additionally, you are free to leave any question(s) blank if you prefer not to answer them for any reason.

Benefits & Compensation: A 1.0 credit will be given upon completion of the present study for your participating psychology course at Trent University. If you chose to withdraw before completing at least 50% of the questionnaire, you will not receive any credit. If you complete 50%, you will receive .5 credit. If more than 50% of the survey is completed, you will receive the full credit. Additionally, by taking part the present study, you will be provided with experience regarding psychological studies and how they are conducted.

Potential Harm: There are no known physical harms directly associated with participation in this study, however, as there is the possibility for emotional discomfort when discussing personal and possibly sensitive or embarrassing material. Please contact Trent University Counselling Centre in Blackburn Hall, Suite 113, by phone at 705-748-1386, or by email at counselling@trentu.ca if you experience any emotional distress as a result of the present study.

Please read the following statements and indicate you have done so at the bottom of the page:

Confidentiality: I understand that my involvement in the current study is completely anonymous and confidential, and as such, will not be revealed to any third parties by the researchers. I also understand that any information regarding my identity will not be disclosed in any publications or presentations of the research derived from this survey.

Information Storage: I understand that all data that is collected from the questionnaires will be encrypted and stored on a secure hard drive in a locked research lab and that can only be

accessed by the researchers. All information will be destroyed five years after the last publication and/or presentation.

Use of Information: I understand that the information derived from this data will be used in projects, poster presentations and conferences, and may be published in psychology journals.

Conflicts of Interest: I understand that the researchers of the present study do not seek to gain a commercial benefit due to the completion of the study, and that they have received no funding from a commercial interest.

Consent: I have been informed of the present studies goals and methods, and have had any and all questions answered. I understand the potential harms, including potential emotional reactions, as well as the benefits that I will receive as a result of completing the present study. I understand that my anonymity will be maintained. If I have any additional questions about the study, either now, or in the future, I understand that I may contact the lead researcher to inquire about them.

Withdrawal: I understand that should I choose to withdraw from the study for any reason, I will not lose the 1.0 credits that I have been given in compensation. Additionally, I understand that I have the right to withdraw from the present study for any reason.

Questions: I understand that if I have any additional questions, I can contact the researcher at the email listed above. I also understand that should I have any questions regarding my participation in research at Trent University, I can contact Karen Mauro at the Trent University Research Ethics Office at kmauro@trentu.ca or by phone at 705-748-1011 x7896.

Please feel free to print a copy of this form for your own records.

Appendix B: Debrief Form

Thank you for taking the time to participate in this study. Your participation serves to extend our understanding of sexting within the context of romantic relationships, and is greatly appreciated. At this time, we would like to provide you with a more detailed explanation of the present study. The present study, as previously stated, sought to examine the role that sexting behaviours play within romantic relationships. Although the act of sexting is relatively new, there has been an increasing academic interest in the behaviours among psychology researchers. Past research has shown sexting has become a relatively common act, with a reported prevalence between 43% and 89% depending on the study (Delevi, & Weisskrich, 2013; Gordon-Messer, Bauermeister, Grodzinski, & Zimmerman, 2013). Additionally, past research has suggested that sexting may be more common within the context of a romantic relationship, possibly due to the increased levels of trust and commitment afforded by relationships (Delevi, & Weisskrich, 2013; Hudson, & Ferto, 2015). The impact of sexting on relationships has been examined in past research, but to mixed results. Some studies have shown that sexting is associated with an increased level of consensus within the relationship, and a drive for pleasure within the relationship (Parker, Blackburn, Perry, & Hawks, 2013). However, other research has suggested that certain sexting behaviours may negatively impact relationship satisfaction, especially for women in heterosexual relationships who only receive sext messages from their partner (Currin, Jayne, Hammer, Brim, & Hubach, 2016). The present study is seeking to clarify the role that sexting behaviours play in relationships, by examining the different types of sexting behaviours (Sexual text messages and sexual photos) independently, examining sexting within different types of relationships (casual, committed, cohabitating, long-distance, married, etc), and by examining how other factors, such as quality of communication, trust and attachment style, relate to the interaction between sexting and satisfaction.

Please remember that it is normal to feel uncomfortable as a result of filling out a questionnaire on topics that are highly sensitive and personal. However, if you feel as though you wish to discuss these feelings, or you feel personally disturbed as a result of the questionnaire, the Counselling Centre at Trent University is available to talk with you. You can contact the Trent University Counselling Centre in person in Blackburn Hall, Suite 113, by phone at 705-748-1386, or by email at counselling@trentu.ca.

If you have any additional questions, comments or concerns regarding the study, or you would like to view the study once it is completed, please feel free to contact Dr. Terry Humphreys through email at terryhumphreys@trentu.ca. If you have any questions regarding the research process, or would like to know more about your rights as a participant in research, please contact Karen Mauro, Certifications and Regulatory Compliance Officer, email: kmauro@trentu.ca, phone: 705-748-1011 ext. 7896. You may print a copy of this feedback form for your own records.

Thank you again for your participation!

Appendix D: Relationship Demographics

1. How would you describe your current relationship?

Casually	Steady	Engaged	Married
Dating with	Relationship		
one person	with one		
	person		

2. How long have you been in your current relationship? Please report in number of months.: _____

3. Are you currently in a long distance relationship?

Yes No

4. How long have you been married to your partner? Please report in number of months.:

_____ *(Shown if participants indicated being married)*

5. How often do you see your partner in person? *(Shown if participants indicated being in a long distance relationship)*

More than	Once a	4-6 times	2-3 times	Once a	Less than
once a	week	per month	per	month	once a
week			month		month

6. Are you cohabitating with your partner? *(Shown if participants indicated that they were not in a long distance relationship)*

Yes No

7. How often do you see your partner? *(Shown if participants indicated that they were in a non-cohabitating relationship)*

Daily	4-6 times	2-3 times	Once a	Less than
	per week	per week	week	once a week

8. How long have you been cohabitating with your partner? *(Shown if participants indicated that they were cohabitating with their partner)*

Appendix E: Sexual Activity Questions

1. Have you ever willingly engaged in sexual activities, defined here as: physical contact of a sexual nature, with one or more other person(s) that could lead to the experience of orgasm (whether or not orgasm occurred).

Yes No

2. Have you ever willingly engaged in sexual activities with your current relationship partner, defined here as: physical contact of a sexual nature, with one or more other person(s) that could lead to the experience of orgasm (whether or not orgasm occurred).

Yes No

Appendix F: Sexual Activity List

The following items are a list of sexual behaviors the might be done in the context of a relationship. Please read through each behaviour, and indicate if you have tried the behaviour with your current sexual partner, and how frequently you engage in the behaviour with your partner.

(For each item below, participants were asked if they had engaged in the behaviour (with a “Yes, No” response item, and if they had, how frequently the do so with their current relationship partner on the following scale)

Once	Less than once a month	Once a month	2-3 times a month	4-6 times a month	Once a week	2-3 times a week	4-6 times a week	Daily
------	------------------------	--------------	-------------------	-------------------	-------------	------------------	------------------	-------

1. Passionate Kissing?
2. Watching Pornography Together?
3. Mutual Masturbation?
4. Digital Stimulation of the Vagina (Fingering)?
5. Digital Stimulation of the Anus (Anal Fingering)?
6. Fellatio/Cunnilingus?
7. Penile-Vaginal Penetration?
8. Penile-Anal Penetration?
9. Penetrative Sex Without a Condom?
10. Using Sex Toys Together?
11. "Rough" Sex (biting, scratching, hair pulling, etc.)?
12. Group Sex (three or more partners)?

Appendix G: Sexting Behaviours

For each sexting style, answering anything but “No” at each level of specificity would progress participants to the next step, from lifetime, to lifetime with partner, to recent with partner, to recent frequency. For Photo-based sexting styles, participants who indicated that they had engaged in sexting with their partner were also asked about their face inclusion for that style of sexting.

Sexually Suggestive Text Messages (SSTM)

1. Have you ever sent or received a sexually suggestive text message? By "Sexually suggestive text message" we are referring to messages containing sexual innuendo, seductive language or indication of sexual desire or excitement sent or received via cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

2. Have you ever sent or received a sexually suggestive text message to or from your current relationship partner? By "Sexually suggestive text message" we are referring to messages containing sexual innuendo, seductive language or indication of sexual desire or excitement sent or received via cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

3. Have you sent or received a sexually suggestive text message to or from your current relationship partner in the past 30 days? By "Sexually suggestive text message" we are referring to messages containing sexual innuendo, seductive language or indication of sexual desire or excitement sent or received via cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

4. How frequently do you send and/or receive sexually suggestive test messages with your current relationship partner? By "Sexually suggestive text message" we are referring to messages containing sexual innuendo, seductive language or indication of sexual desire or excitement sent or received via cellphone.

Daily	4-6 times a week	2-3 times a week	Once a week	2-3 times per month	Once a month	Less than once a month
-------	------------------------	---------------------	----------------	------------------------	-----------------	---------------------------------

Sexually Explicit Text Messages (SETM)

1. Have you ever sent or received a sexually explicit text message? By "Sexually explicit text message" we are referring to messages containing explicit language about sexual acts, "cybering" or sexual role-play sent or received via cellphone.

Sent and Received Sent No
 Received Only Only

2. Have you ever sent or received a sexually explicit text message to or from your current relationship partner? By "Sexually explicit text message" we are referring to messages containing explicit language about sexual acts, "cybering" or sexual role-play sent or received via cellphone.

Sent and Received Sent No
 Received Only Only

3. Have you sent or received a sexually explicit text message to or from your current relationship partner in the past 30 days? By "Sexually explicit text message" we are referring to messages containing explicit language about sexual acts, "cybering" or sexual role-play sent or received via cellphone.

Sent and Received Sent No
 Received Only Only

4. How frequently do you send and/or receive sexually explicit text messages with your current relationship partner? By "Sexually explicit text message" we are referring to messages containing explicit language about sexual acts, "cybering" or sexual role-play sent or received via cellphone.

Daily	4-6	2-3 times	Once a	2-3 times	Once a	Less
	times a	a week	week	per month	month	than
	week					once a
						month

Sexually Suggestive Photos (SSP)

1. Have you ever sent or received a sexually suggestive photo? By "Sexually suggestive photo" we are referring to a self taken, clothed photo of a sexual and flirtatious nature sent or received via cellphone. This includes: photos of clothed breasts/cleavage, crotch, or rear.

Sent and Received Sent No
 Received Only Only

2. Have you ever sent or received a sexually suggestive photo to or from your current relationship partner? By "Sexually suggestive photo" we are referring to a self taken, clothed photo of a sexual or flirtatious nature sent or received via cellphone. This includes: photos of clothed breasts/cleavage, crotch, or rear.

Sent and Received Sent No
 Received Only Only

3. Have you ever sent a sexually suggestive photo to your current relationship partner where your face was clearly visible? By "Sexually suggestive photo" we are referring to a self

taken, clothed photo of a sexual or flirtatious nature sent or received via cellphone. This includes: photos of clothed breasts/cleavage, crotch, or rear.

Yes No

4. Have you sent or received a sexually suggestive photo to or from your current relationship partner in the past 30 days? By "Sexually suggestive photo" we are referring to a self taken, clothed photo of a sexual or flirtatious nature sent or received via cellphone. This includes: photos of clothed breasts/cleavage, crotch, or rear.

Sent and Received Sent No
 Received Only Only

5. How frequently do you send and/or receive sexually suggestive photos with your current relationship partner? By "Sexually suggestive photo" we are referring to a self taken, clothed photo of a sexual or flirtatious nature sent or received via cellphone. This includes: photos of clothed breasts/cleavage, crotch, or rear.

Daily	4-6	2-3 times	Once a	2-3 times	Once a	Less
	times a	a week	week	per month	month	than
	week					once a
						month

Partially Nude Photos (PNP)

1. Have you ever sent or received a partially nude photo? By "Partially nude photo" we are referring to a self taken photo of a sexual nature sent or received via cellphone where the subject was unclothed, but no exposed breasts or genitalia were present. This includes: photos of individuals in their underwear or lingerie, or exposed chest, rear, thighs, etc.

Sent and Received Sent No
 Received Only Only

2. Have you ever sent or received a partially nude photo to or from your current relationship partner? By "Partially nude photo" we are referring to a self taken photo of a sexual nature sent or received via cellphone where the subject was unclothed, but no exposed breasts or genitalia were present. This includes: photos of individuals in their underwear or lingerie, or exposed chest, rear, thighs, etc.

Sent and Received Sent No
 Received Only Only

3. Have you ever sent a partially nude photo to your current relationship partner where your face was clearly visible? By "Partially nude photo" we are referring to a self taken photo of a sexual nature sent or received via cellphone where the subject was unclothed, but no exposed breasts or genitalia were present. This includes: photos of individuals in their underwear or lingerie, or exposed chest, rear, thighs, etc.

Yes No

4. Have you sent or received a partially nude photo to or from your current relationship partner in the past 30 days? By "Partially nude photo" we are referring to a self taken photo of a sexual nature sent or received via cellphone where the subject was unclothed, but no exposed breasts or genitalia were present. This includes: photos of individuals in their underwear or lingerie, or exposed chest, rear, thighs, etc.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

5. How frequently do you send and/or receive partially nude photos with your current relationship partner? By "Partially nude photo" we are referring to a self taken photo of a sexual nature sent or received via cellphone where the subject was unclothed, but no exposed breasts or genitalia were present. This includes: photos of individuals in their underwear or lingerie, or exposed chest, rear, thighs, etc.

Daily	4-6 times a week	2-3 times a week	Once a week	2-3 times per month	Once a month	Less than once a month
-------	------------------------	---------------------	----------------	------------------------	-----------------	---------------------------------

Nude Photos (NP)

1. Have you ever sent or received a nude photo? By "Nude photo" we are referring to a self taken photo of a sexual nature depicting exposed genitalia or breasts, but not those depicting sexual acts such as masturbation that was sent or received via a cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

2. Have you ever sent or received a nude photo to or from your current relationship partner? By "Nude photo" we are referring to a self taken photo of a sexual nature depicting exposed genitalia or breasts, but not those depicting sexual acts such as masturbation that was sent or received via a cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

3. Have you ever sent a nude photo to your current relationship partner where your face was clearly visible? By "Nude photo" we are referring to a self taken photo of a sexual nature depicting exposed genitalia or breasts, but not those depicting sexual acts such as masturbation that was sent or received via a cellphone.

Yes	No
-----	----

4. Have you sent or received a nude photo from your current relationship partner in the past 30 days? By "Nude photo" we are referring to a self taken photo of a sexual nature depicting exposed genitalia or breasts, but not those depicting sexual acts such as masturbation that was sent or received via a cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

- How frequently do you send and/or receive nude photos with your current relationship partner? By "Nude photo" we are referring to a self taken photo of a sexual nature depicting exposed genitalia or breasts, but not those depicting sexual acts such as masturbation that was sent or received via a cellphone.

Daily	4-6 times a week	2-3 times a week	Once a week	2-3 times per month	Once a month	Less than once a month
-------	------------------------	---------------------	----------------	------------------------	-----------------	---------------------------------

Solo Sexual Act Photos (SSA)

- Have you ever sent or received a photo depicting solo sexual acts? By "Photo depicting solo sexual acts" we are referring to a self taken photo of a sexual nature depicting the stimulation of the genitals or anus by things such as: fingers, hands, masturbators, dildos, or vibrators that was sent or received via cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

- Have you ever sent or received a photo depicting solo sexual acts to or from your current relationship partner? By "Photo depicting solo sexual acts" we are referring to a self taken photo of a sexual nature depicting the stimulation of the genitals or anus by things such as: fingers, hands, masturbators, dildos, or vibrators that was sent or received via cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

- Have you ever sent a photo depicting solo sexual acts to your current relationship partner where your face was clearly visible? By "Photo depicting solo sexual acts" we are referring to a self taken photo of a sexual nature depicting the stimulation of the genitals or anus by things such as: fingers, hands, masturbators, dildos, or vibrators that was sent or received via cellphone.

Yes	No
-----	----

- Have you sent or received a photo depicting solo sexual acts to or from your partner in the past 30 days? By "Photo depicting solo sexual acts" we are referring to a self taken photo of a sexual nature depicting the stimulation of the genitals or anus by things such as: fingers, hands, masturbators, dildos, or vibrators that was sent or received via cellphone.

Sent and Received	Received Only	Sent Only	No
----------------------	------------------	--------------	----

- How frequently do you send and/or receive photos depicting solo sexual acts with your partner? By "Photos depicting solo sexual acts" we are referring to a self taken photo of a

sexual nature depicting the stimulation of the genitals or anus by things such as: fingers, hands, masturbators, dildos, or vibrators that was sent or received via cellphone.

Daily	4-6 times a week	2-3 times a week	Once a week	2-3 times per month	Once a month	Less than once a month
-------	------------------------	---------------------	----------------	------------------------	-----------------	---------------------------------

Appendix I: Communication Functioning Questionnaire Self (CFQS)

Burleson, Kunkel, Samter and Werking (1996) modified for self perceptions for the present study.

The following statements are designed to measure the degree and quality of communication that you personally engage in within your current relationship. This is not a test, so there are no right or wrong answers. Indicate how much you agree or disagree with each statement as accurately and as a carefully as you can.

All items were measured on the following 5 point Likert scale:

Strongly Agree Neutral Disagree Strongly Disagree
Agree

1. I make my partner believe our relationship is strong enough to withstand any conflicts or disagreements we might have.
2. I make my partner feel like they can be really honest about the things in our relationship that produce conflict.
3. I make my partner believe its possible to resolve our conflicts in a way that won't hurt or embarrass each other.
4. I make my partner see that even the best of relationships has its conflicts or disagreements that need to be worked through.
5. I make my partner realize that it's better to deal with conflicts we have than to keep things bottled up inside.
6. I can really help my partner work through their emotions when they're feeling upset or depressed about something.
7. I can really cheer my partner up when they're feeling down or upset.
8. I almost always makes my partner feel better when they're hurt or depressed about something.
9. I help my partner understand why some things hurt or depress them so much.
10. I make my partner feel like they're a good person.
11. I make my partner believe in themselves.
12. I make my partner feel like they can achieve their personal goals.
13. I can talk my partner into doing things that I want them to do.
14. I am able to get my partner to go along with what I want to do.
15. I know the kinds of things to say to get my partner to think or act differently.

Appendix J: Communication Functioning Questionnaire Partner (CFQP)

Burleson, Kunkel, Samter and Werking (1996) modified for the present study.

The following statements are designed to measure the degree and quality of communication that your partner engages in within your current relationship. This is not a test, so there are no right or wrong answers. Indicate how much you agree or disagree with each statement as accurately and as a carefully as you can.

All items were measured on the following 5 point Likert scale:

Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

1. My partner makes me believe our relationship is strong enough to withstand any conflicts or disagreements we might have.
2. My partner makes me feel like I can be really honest about the things in our relationship that produce conflict.
3. My partner makes me believe its possible to resolve our conflicts in a way that won't hurt or embarrass each other.
4. My partner makes me see that even the best of relationships has its conflicts or disagreements that need to be worked through.
5. My partner makes me realize that it's better to deal with conflicts we have than to keep things bottled up inside.
6. My partner can really help me work through my emotions when I'm feeling upset or depressed about something.
7. My partner can really cheer me up when I'm feeling down or upset.
8. My partner almost always makes me feel better when I'm hurt or depressed about something.
9. My partner helps me understand why some things hurt or depress me so much
10. My partner makes me feel like I'm a good person.
11. My partner makes me believe in myself.
12. My partner makes me feel like I can achieve my personal goals.
13. My partner can talk me into doing things that he/she wants me to do.
14. My partner is able to get me to go along with what he/she wants to do.
15. My partner knows the kinds of things to say to get me to think or act differently.

Appendix K: Dyadic Sexual Communication Scale (DSCS)

Catania (1986)

The following items are a list of statements different people have made about discussing sex with their primary partner. As you read through them, please indicate how much you agree or disagree with them in regards to your own relationship.

All items were measured on the following 6 point Likert scale:

Disagree	Disagree	Somewhat	Somewhat	Agree	Agree
strongly		disagree	agree		strongly

1. My partner rarely responds when I want to talk about our sex life.
2. Some sexual matters are too upsetting to discuss with my sexual partner.
3. There are sexual issues or problems in our sexual relationship that we have never discussed.
4. My partner and I never seem to resolve our disagreements about sexual matters.
5. Whenever my partner and I talk about sex, I feel like she or he is lecturing me.
6. My partner often complains that I am not very clear about what I want sexually.
7. My partner and I never had a heart to heart talk about our sex life together.
8. My partner has no difficulty in talking to me about his or her sexual feelings and desires.
9. Even when angry with me, my partner is able to appreciate my views on sexuality.
10. Talking about sex is a satisfying experience for both of us.
11. My partner and I can usually talk calmly about our sex life.
12. I have little difficulty in telling my partner what I do or don't do sexually.
13. I seldom feel embarrassed when talking about the details of our sex life with my partner.

Appendix L: Experiences in Close Relationships Scale (Short) (ECRS)

Wei, Russell, Mallinckrodt and Vogel (2007)

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it.

All items were measured on the following 7 point Likert scale:

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

1. It helps to turn to my romantic partner in times of need.
2. I need a lot of reassurance that I am loved by my partner
3. I want to get close to my partner, but I keep pulling back.
4. I find that my partner(s) don't want to get as close as I would like.
5. I turn to my partner for many things, including comfort and reassurance.
6. My desire to be very close sometimes scares people away.
7. I try to avoid getting to close to my partner.
8. I do not often worry about being abandoned.
9. I usually discuss my problems and concerns with my partner.
10. I get frustrated if romantic partners are not available when I need them.
11. I am nervous when partners get to close to me.
12. I worry that romantic partners won't care about me as much as I care about them.

Appendix M: Dyadic Trust Scale (DTS)

Larzelere, and Huston (1980)

For each of the following statements, indicate the extent to which you agree or disagree with regard to your current relationship partner. This is not a test, so there are no right or wrong answers. Indicate how much you agree or disagree with each statement as accurately and as carefully as you can.

All items were measured on the following 7 point Likert scale:

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

1. My partner is primarily interested in his (her) own welfare.
2. There are times when my partner cannot be trusted.
3. My partner is perfectly honest and truthful with me.
4. I feel that I can trust my partner completely.
5. My partner is truly sincere in his (her) promises.
6. I feel that my partner does not show me enough consideration.
7. My partner treats me fairly and justly.
8. I feel that my partner can be counted on to help me.

**Appendix N: Abbreviation Guide
Cohabitation Status.**

LDR = Long Distance Relationship

GC = Geographically Close

Measures.

Rel.Len = Relationship Length

GMREL = Global Measure of Relationship Satisfaction

GMSEX = Global Measure of Sexual Satisfaction

CFQS = Communication Function Questionnaire Self

CFQP = Communication Function Questionnaire Partner

DSCS = Dyadic Sexual Communication Scale

ECR-S = Experiences in Close Relationship Questionnaire (Short Form)

DTS = Dyadic Trust Scale

Sexting Styles.

SSTM = Sexually Suggestive Text Messages

SETM = Sexually Explicit Text Messages

SSP = Sexually Suggestive Photo Messages

PNP = Partially Nude Photo Messages

NP = Nude Photo Messages

SSAP = Solo Sexual Act Photo Messages