

SEXTING AND THE APPLICATION  
OF THE SOCIAL EXCHANGE THEORY

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By

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## ABSTRACT

Sexting, the action of sending or receiving sexually explicit text, photographs, or video messages through cell phones or other electronic devices (Renfrow & Rollo, 2014), has become a frequently used means of sexual communication and exploration among adolescent/young adults (Walrave et al., 2015). To date, media has emphasized the risk of possible social and psychological consequences (Zhang, 2010), while limiting the discussion of possible benefits of sexting such as providing a safe method of expressing sexuality, with no risk of pregnancy or sexually transmitted infections (STIs) (Lee et al., 2013; Shafron-Perez, 2009). The current study applied the social exchange theory (SET), a social-psychological perspective that suggests all social interactions between individuals occur through negotiations of rewards and costs (Laursen & Jensen-Campbell, 1999; Thibaut & Kelley, 1965), to reports of sexting behaviours of young adults. Participants completed a series of measures that tapped into the constructs of sexting attitudes and behaviours, sexual and relationship satisfaction, sexual self-esteem, attachment, and patterns of sexual self-disclosure. It was predicted that perceived rewards minus costs of sexting with a current partner, sexting frequency, and sexual self-esteem would predict sexual self-disclosure (Hypothesis 2.b). It was also predicted that SET would provide a suitable framework for examining young adults' relationship and sexual satisfaction, in that reports of sexual self-disclosure during sexting would predict relationship and sexual satisfaction (Hypotheses 3.a and 3.b). A linear regression analysis provided support for Hypothesis 2.b, suggesting that SET provides a suitable framework for examining young adults' perceptions of rewards and costs associated with sexual self-disclosure during sexting. In addition, Hypotheses 3.b was also supported, where sexual self-disclosure predicted sexual satisfaction. However, Hypothesis 3.a was not supported, and suggested that sexting behaviours, perceptions of sexting, or sexual self-disclosure during sexting do not predict relationship satisfaction. Therefore, partial support for the application of SET in understanding how sexting may be related to relationship and sexual satisfaction in young adults was found. Future research is needed to examine sexting and sexual satisfaction with all aspects of SET, which would extend the understanding of the relationship of rewards and costs of sexting and sexual satisfaction.

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## CHAPTER 1

### INTRODUCTION

The purpose of the current study is to examine the relationship among sexting behaviours, relationship satisfaction, and sexual self-esteem. Sexting is the action of sending or receiving sexually explicit text, photographs, or video messages through cell phones or other electronic devices (Renfrow & Rollo, 2014). Past research has primarily examined the negative impacts of sexting, for example, sexual harassment and unwanted exposure to sexual content (Doring, 2009), with limited research pertaining to the use of sexting as a method of intervention or sexual exploration (Parker, Blackburn, Perry, Hawks, 2013). With the increased use of technology, sexting has become a frequently used means of sexual communication and exploration, particularly within the adolescent/young adult population (Walrave, Ponnet, Van Ouytsel, Van Gool, Heirman, & Verbeek, 2015). The most identified risk related to sexting is the legality of exchanging photos/videos without consent of all parties (Strassberg, McKinnon, Sustaita, & Rullo, 2013); however, sexting between consenting adults may provide a safe method of expressing sexuality with a partner as it provides no risk of pregnancy, sexually transmitted infections (STIs), or face-to-face rejection (Lee, Crofts, Salter, Milivojevic, & McGovern, 2013; Shafron-Perez, 2009).

Individuals high in sexual self-esteem are often more accepting of their sexuality (Adler & Hendrick, 1991). Sexual self-esteem is our emotional reactions to our own sexual thoughts, feelings, and behaviours (Zeanah & Schwartz, 1996) and is influenced by the reactions of others to our sexuality (Schick, Calabrese, Rima, & Zucker, 2010), which affects our appraisal of our own sexual competence. These emotional reactions influence our pride and shame with respect to sexuality (Stewart & Szymanski, 2012). Although research has examined sexting in singles or those within casual relationships (Dake, Price, Mazriaz, & Ward, 2012), studies examining sexting and sexual self-esteem within committed couples are lacking. Relationship quality, both sexual and emotional, is related to both partners' acceptance of their own sexuality (Adler & Hendrick, 1991). Therefore, it is important to examine the impact that sexting, as an emerging form of sexual communication within couples, may have on sexual pride, comfort, and relationship satisfaction. The association among

sexting, sexual self-esteem, and relationship/sexual satisfaction will be examined with the framework of social exchange theory (SET). SET is a social-psychological perspective that suggests all social interactions between individuals occur through negotiations (both verbal and non-verbal) of rewards and costs (Laursen & Jensen-Campbell, 1999; Thibaut & Kelley, 1965). SET may assist in understanding the sexting behaviour of young adults in ongoing relationships, and broaden our understanding of why young women, in particular, may continue to take part in sexting activities in spite of the recognized risks.

CHAPTER 2  
LITERATURE REVIEW  
**2.1 Sexting and Sexuality**

Sexuality is a biological and emotional need found in nearly all humans, and is an important component of romantic relationships because it has an impact on couples' views of their relationship and sexual satisfaction (Haavio-Mannila & Kontula, 1997; Kisler & Christopher, 2008; Young, Denny, Young, & Luquis, 2000). Aspects of sexual behaviours, such as frequency, quantity, and quality are important predictors of relationship and sexual satisfaction (Byers, 2005; Rusbult, Martz, & Agnew, 1998; Santtila, Wager, Witting, Harlaar, Jern, et al., 2008). Although many activities constitute sexuality, society's view of sexuality tends to be quite narrow, equating sexual behaviour with sexual intercourse (Doan, 2004). This narrow perspective is apparent with the view that other sexual behaviours, such as sexting or masturbation, are not true forms of sexual expression (Parker et al., 2013).

Open communication with a partner is required in order to receive the full benefits of a sexual relationship (Montesi et al., 2013). Although the majority of communication occurs primarily through face-to-face contact, communication via technology, for instance, through texting, Snapchat®, and Facebook®, is widely accepted and in some cases preferred among teens and young adults (Lenhart, Campbell, & Purdell, 2010). For example, 54% of teens reported sending text messages to their friends daily, while approximately one-third of teens reported calling (38%) or speaking to friends face-to-face (33%) on a daily basis (Lenhart et al., 2010). It is no longer necessary for romantic couples discuss sexual fantasies verbally. Instead, sexual communication can occur electronically. Many young adults may prefer technology mediated communication because it provides a feeling of control over the social interaction. For example, it enables communication with multiple individuals, allows for the ability to leave gaps in the conversation or conceal the truth, and permits more control over the emotional aspects of interactions (Madell & Muncer, 2007). In fact, sexting between intimate couples has dramatically increased from 31% (The National Campaign, 2008) to 67% of young adults (Dir, Coskunpinar, Steiner, & Cyders,

2013; Drouin & Landgraff, 2012) in the last five years (Drouin & Landgraff, 2012; Lenhart, 2009).

Sexting has also received considerable media attention of late (Renfrow & Rollo, 2014). The majority of recent research has focused on the impact of sexting on adolescent women (Dake et al., 2012), as opposed to young adult women in committed relationships. These studies typically conclude that sexting promotes negative aspects of sexuality, for example increased likelihood to take part in high sexual risk behaviour post sexting experience, to both performers (Benotsch, Snipes, Martin, & Bull, 2013; Drouin & Landgraff, 2012). However, this overarching conclusion may not be warranted because the potential benefits of sexting among adults in a committed relationship have not been rigorously examined.

## **2.2 Risks of Sexting**

### **2.2.1 Sexting and the Law**

Debates surrounding the negative effects of sexting focus on legal issues and the potential psychological impact of sexting on youth and young adults. Within Canada, the sharing of sexual photos is considered a form of pornography distribution (Department of Justice, 2011). For adults, sexting is a legal activity, as long as all parties have consented to the forwarding and receiving of the sexually suggestive material. However, this is not the case for an individual under the age of 18. The Criminal Code of Canada includes sections related to child pornography with the intention to protect minors from sexual exploitation. Under the Criminal Code Section 163.1, the creation and dissemination of sexual images of a person under the age of 18 is a criminal offense (Department of Justice, 2011). Although the age of consent within Canada is 16, the law prohibits the production and distribution of personal sexual photos of individuals under the age of 18. Individuals under the age of 18 have been charged with the possession and distribution of child pornography as a result of sexting within the U.S. and Canada (Barkacs & Barkacs, 2010; Hinduja & Patchin, 2010).

Several law officials and mental health professionals are concerned with the potential psychological risks associated with sending and receiving sexually explicit material - specifically suicide and depression (Zhang, 2010). Additionally, the fear that children and teens are coerced or pressured into sexting or may experience harassment after sending sexually explicit materials is also distressing to social commentators within the community (Zhang, 2010). Many critics are concerned that children and teens will be exposed to sexual material too early, experience

exploitation from adults, or will not understand the severe consequences of sending sexually explicit materials while underage (Strassberg et al., 2013; Zhang, 2010). However, prohibiting teens from sexting may pose an issue for youth who seek a form of sexual expression that limits the risk of health concerns such as pregnancy or sexually transmitted infections. Teens that take part in sexting, perhaps as a means of safe sexual exploration, may not understand the legal ramifications that may occur if reported to law officials. Strassberg and colleagues (2013) found that only 58% of youth understand the legal consequences of sexting. The distinction of what is legal in relation to sexual consent is apparently confusing to youth as many take part in sexting under the perception that it is sexual expression between their self and their sexual partner.

The fear related to underage sexting appears to be transferred to young adults. Information related to the consequences of sexting provided to teens before they begin university has been found to remain instilled in the youths' minds. Although university students report that aspects of sexting leave them feeling vulnerable (Weisskrich & Delevi, 2011), over two-thirds of young adults engage in sexting with their partner (Drouin & Landgraff, 2012). This ambivalence toward sexting may create unnecessary fear during sexual exploration with a partner, possibly affecting young adults' abilities to communicate sexually with a committed sexual partner. Media portrayals that focus on the negative consequences of sexting do not appear to decrease sexting behaviours, but may instead only serve to create tension during a time of sexual exploration (Drouin & Landgraff, 2012).

### **2.2.2 Sexting and Media**

To date, media has largely focused on the negative consequences of sexting, with numerous articles, surveys, and interviews constructed in a manner that creates alarm for teens/young adults and their concerned parents alike (MTV-Associated Press, 2009; The National Campaign to Prevent Teen and Unplanned Pregnancy and Cosmogirl.com, 2008; Ricketts, Maloney, Marcum, & Higgens, 2014). A report conducted by the National Campaign to Prevent Teen and Unplanned Pregnancy and CosmoGirl.com (2008) concluded that 20% of youth between the ages of 13 and 19 within the U.S. reported sending or posting sexually explicit photos of him/herself via the Internet. Furthermore, 38% of the surveyed youth reported that they have been an unintended receiver of a sexual text or photo. Media coverage reporting this new "shockingly common" (Associated Press, 2009) and "disturbing new teen trend" (National Public Radio, 2009) was overwhelming for parents, school officials, and researchers (Judge,

2012). However, subsequent online surveys conducted by academic researchers were unable to replicate these findings, suggesting that sexting may not be this prevalent among adolescents.

Coverage of suicide, cyber-bullying, school and parental responsibilities, moral questions and ethical dilemmas, and legal issues occurs frequently in media (Chalfen, 2010), while the possible benefits of sexting are ignored. Media's coverage of sexting has produced fear in parents and school officials (Chalfen, 2010). A major risk identified through media sources is the ability to save, forward, and/or post the sexted material on social media websites without the sender's consent or knowledge (Ricketts et al., 2014; Wastler, 2010). Attempts by law officials to decrease the number of incidents of sexual partners who forward and/or post sexted material to the public are apparent, yet futile. Many countries, such as Canada and the U.S., have created laws against the distribution of sexts to unintended receivers, but this effort is unable to cease all activity. The concern of distribution arises from parents' fear that their children will endure lasting detrimental effects, such as psychological distress and limited school and/or job opportunities, due to the posting of sexual photos during their teen years (Mitchell, Finkelhor, Jones, & Wolak, 2012). However, it is possible that benefits, such as sexual exploration and increased sexual/romantic satisfaction, can result from the use of sexting between two consenting individuals (Parker et al., 2013). Therefore, an understanding of both the potential positive and negative aspects of sexting would lead to a more rounded understanding of this complex issue, and may aid in the development of safeguards that simultaneously promote the benefits of sexting communication while also protecting youth and young adults from the associated sexting risks.

Media has also presented sexting as a sign of hypersexualization, associating sexting with extreme risk-taking in those who take part (Mitchell et al., 2012). In particular, the societal sentiment that young women are viewed as sexual objects has increased the distress surrounding sexting. This assumption is made without understanding the potential benefits women, as sexual agents, may receive from taking part in sexting. Media also raises concerns regarding teenage sexual health by promoting the notion that those who sext are more likely to be sexually active with multiple partners or to become pregnant (Mitchell et al., 2012). However, the number of teen pregnancies and the number of youth or young adults with multiple sexual partners have both decreased within the last decade, while the rate of sexting has increased (Finkelhor, 2008; Mitchell et al., 2012). Although youth and young adults who become pregnant or engage in

sexual activity with multiple partners may also engage in sexting, it is unlikely that this relation is causal.

In sum, the current research within the sexting field appears to be based upon two assumptions: 1) sexting promotes negative sexual consequences among its users and 2) adolescents are the primary producers and consumers of sexting. Public discussions related to the legal ramifications of sexting and its impact on society is frequently examined (Klettke, Hallford, & Mellor, 2014). Relatively little research has been conducted regarding potential positive aspects of sexting (Parker et al., 2013). The evident negative biases towards sexting have limited the understanding of positive outcomes that may be created from the use of sexting as a means of communication.

### **2.2.3 Consequences of Sexting**

Without doubt there are potential negative consequences, both socially and emotionally (e.g., loss of peer groups and depression), associated with sexting (Judge, 2012). These consequences often result from the forwarding or publicizing of sexual photos intended for a sexual partner to peers/colleagues, family members, employers, or on social media websites (Hinduja & Patchin, 2010; Judge, 2012; Ricketts et al., 2014; Strassberg et al., 2013). Sexting may be used by teens as a form of relationship currency and may be passed between friends or peers as a means of entertainment (Lenhart, 2009). The forwarding of personal sexual photos to unintended receivers for amusement or revenge can create social and emotional consequences for the original sext sender (Chalfen, 2010) resulting from embarrassment and feeling ostracized from peer groups. Scholars have suggested that sexting is related to mental health issues; yet, studies have identified no association between sexting and depression, anxiety, or self-esteem (Gordon-Messer, Bauermeister, Grodzinski, & Zimmerman, 2013). However, acknowledgment of mental health concerns under some conditions (lack of control after sexting or pressure from a sexual partner) is supported (Gordon-Messer et al., 2013; Lenhart, 2009).

Individuals who seek sexual partners through online technology tend to take part in high-risk sexual behaviours (Benotsch, Snipes, Martin, & Bull, 2012). For example, such individuals report more sexual partners, more unprotected sexual experiences, increased rates of substance use during sexual activity, and higher reports of sexually transmitted infections (Benotsch et al., 2012; Bolding, Davis, Hart, Sherr, Elford, 2006; Bull & McFarlane, 2000). However, the relationship between sexting and sexual risk taking is unclear (Gordon-Messer et al., 2013), with



associations between sexting (a form of Internet communication) and sexual risk taking being only marginally supported (Benotsch et al., 2012; Gordon-Messer et al., 2013).

Similar to the pressure to take part in sexual activity, young women may feel pressured to send sexts to sexual/romantic partners (Walker, Sanci, & Temple-Smith, 2013). The feelings to conform to a romantic partner's advances are suggested to impact the psychological wellbeing of young women (Gordon-Messer et al., 2013; Temple et al., 2012). In addition to romantic partner pressures, the increased threat of the distribution of sexting images may also increase psychological distress in women (Lenhart, 2009). In fact, some social commentators assert that the distribution of the sexual images created by young women without their consent constitutes yet another form of power and control over women (Flood 2008; Walkers et al., 2011).

There does appear to be an association between sexting and sexual activity for adolescents and young adults (Rice et al., 2012; Temple et al., 2012). Sexting alone does not pose a threat of either sexually transmitted infections or pregnancy, and with this understanding, many youth and young adults view sexting as a safer means of sexual exploration (Rice et al., 2012). However, many individuals who sext also assume that the sexual exploration will not remain strictly online, and that physical sexual activity will be expected in the future (The National Campaign to Prevent Teen and Unplanned Pregnancy and Cosmogirl.com, 2008; Rice et al., 2012).

### **2.3 Benefits of Sexting**

Although sexting has been associated with identified risks, positive aspects of sexting, although not frequently highlighted, are possible. Adolescence and young adulthood is considered to be a developmental stage where an individual determines personal pleasures and displeasures, specifically in areas related to sexuality (Walrave et al., 2015). Sexual communication enables the exploration of one's sexual identity and expressions of sexual interests to sexual partners (Valkenburg & Peter, 2011). Sexting, a form of sexual communication, provides an avenue to reach developmental milestones related to creating and developing sexuality, sexual identity, and romantic/sexual relationships (Šmahel & Subrahmanyam, 2014). As well, sexting offers an individual with the additional ability to display sexual interest in potential partners (Walrave et al., 2015). Therefore, sexting provides an additional method of developing sexual interests.

Sexting also enables an individual to explore potential sexual partners without the risk of face-to-face rejection and without the need to physically partake in sexual intercourse. The ability to discuss sexual desires without the face-to-face presence of a partner provides insulation from embarrassment (Perkins, Becker, Tehee, & Mackelprang, 2014). Young adults may fear the reactions of new sexual partners during sexual intercourse, and this may be avoided or mitigated through the use of sexting, where reactions can be more thought out rather than immediately reactive (Perkins et al., 2014). The risk of contracting a STI from a new partner is found to be a major reason for young adults to partake in sexting (Rice et al, 2012). As this form of communication occurs without contact, sexting is perceived as a safe alternative that alleviates the risks of pregnancy and STI contraction (Lippman & Campbell, 2012; Renfrow & Rollo, 2014). Sexting is used as a method of developing intimacy between partners who, for religious or moral reasons, avoid sexual intercourse before marriage (Walrave et al., 2015). This provides individuals who are uncomfortable with breaking religious/moral personal values surrounding sexual intercourse with the ability to take part in sexual intimacy with a romantic partner. Thus, sexting allows for both sexual needs to be met and moral decisions to be kept.

Fear of consequences from sexual intercourse and religious/moral restrictions are not the only motivations for sexting between partners. Sexting is reported to be a method of starting or sustaining intimacy during a long-distance relationship (Doring, 2014; Perkins et al., 2013; Renfrow & Rollo, 2014; Walker et al., 2013). Adolescent couples have reported sexting while separated during holidays and during long-distance relationships necessitated by college enrollment (Albury & Crawford, 2012). The use of sexting as a form of sexual communication allows partners to feel they are providing and receiving sexual gratification while apart. Meeting sexual needs during a long-distance relationship is important, and dissolution of long-distance relationships is often a product of lack of intimacy (Le, Korn, Crockett, & Loving, 2010). Sexual satisfaction, a major aspect of relationship satisfaction and commitment between romantic couples, is often unmet during long-distance relationships, providing partners justification in meeting their sexual needs from other sources (Le et al., 2010).

Despite these potential positive aspects of sexting, many young adults themselves believe sexting holds more negative consequences than positive (Weisskirch & Delevi, 2011). However, notwithstanding these beliefs, young adults still exchange sexts in both monogamous and casual

relationships. The current study will explore the underpinnings of the disjuncture between these beliefs and actions within a SET framework.

## **2.4 Social Exchange Theory**

Relationships require social interactions that increase over time (Bales, 1950; Hinde, 1979). Social interactions between romantic partners require significant reciprocity that an individual values and that influences the behaviour of the receiving partner (Lewin, 1948). Reciprocity occurs through the balance of rewards received and costs given during the relationship (Goffman, 1961; Laursen & Jensen-Campbell, 1999). Rewards, or enjoyable and satisfying exchanged resources within the relationship (e.g., approval, sexual pleasure, money received, desired items), and costs, or effortful (through time, money, or energy) resources (e.g., social disapproval, time invested, effort, money given; Sprecher, 1998; Thibaut & Kelley, 1959), may be tangible (i.e., perceptible by touch) or intangible (i.e., no physical presence; includes feelings, and thoughts; Blau, 1964).

### **2.4.1 Rewards and Costs**

Relationships develop through the exchange of rewards and costs, either immediate or in the future. This exchange of resources creates interdependence between individuals. Seven classes of resources have been identified: love, status, money, material goods, services, information (Foa & Foa, 1974), and sex (Michaels, Acock, & Edwards, 1986). Resources exchanged are not required to be from the same class of resources (Sprecher, 1998). For example, exchanging sex for money, desired items, or a partner's approval can be equally rewarding. However, difficulty can arise when exchanging different classes of resources as many individuals struggle to determine whether the exchange is fair for both partners (Sprecher, 1998). For example, men and women tend to disagree on the worth of sexual behaviours as a reward (Regan & Sprecher, 1995). Women generally view sexual activity as more rewarding for men than men perceive the sexual experience to be, and men view sexual activity as less costly for women than women perceive the sexual experience to be (Regan & Sprecher, 1995). The difficulty in determining the worth of resources provided and received is a result of an individual's subjective assessment of each resource. What one individual perceives as important (e.g., time), another individual may perceive as less important than another resource (e.g., money).

This reciprocity of costs and rewards, the primary focus of SET, has been found to explain relationship satisfaction (Cook & Rice, 2004). SET, derived from social learning theory, is based on the fundamental assumption that people have the freedom of choice to engage in actions that provide rewards and/or incur costs (Roloff, 1981). Three subsidiary assumptions underlie SET: (1) social behaviour includes exchanges between people; (2) an individual will attempt to maximize the rewards they receive and minimize the costs they incur in an attempt to generate a net balance in one's favour; and (3) an individual will engage in reciprocity that arises from a feeling of obligation to return rewards when they receive rewards from others (Gouldner, 1960; Laursen & Jensen-Campbell, 1999; Sprecher, 1998).

In sum, within social exchanges, including sexual/romantic relationship, participants will weigh the costs that they incur against the rewards that they receive. The net outcome (rewards minus the costs) are termed benefits when positive (i.e., the rewards outweigh the costs), and deficits when negative (i.e., the costs outweigh the rewards). Overall, SET posits that an individual will take part in relationships that offer potential benefits, and, before placing effort (costs) into the relationship, they will attempt to forecast what rewards they will receive (Hyde et al., 2012). Quite simply, an individual is more likely to engage in and continue relationships that are perceived as more rewarding than costly.

#### **2.4.2 Equality versus Equity**

The SET central concepts are equality and equity. Equality refers to individuals experiencing the same balance of rewards and costs within the relationship (Walster, Walster, & Bersheid, 1978). Romantic partners experience equality when both feel they are receiving the same amount of outcome benefit or deficit as their partner. Both partners are not required to receive the same amount of rewards or provide the same amount of costs, however, the overall outcome must be the same for both partners in order for equality to exist within the relationship (Walster et al., 1978). Equity occurs when an individual believes the rewards they receive are equal to the costs they experience (Walster et al., 1978). Therefore, equity is not a comparison of the two partners, but a comparison of the individual's rewards and costs within the relationship, where the overall outcome would have equal rewards and costs. Lack of equality or equity creates instability and dissatisfaction between partners, and if not attended to may result in relationship dissolution (Yabiku & Gager, 2009).

## 2.4.3 Models of Social Exchange Theory

### 2.4.3.1 Equity theory

SET is refined into three specific models related to romantic relationships and sexuality. Equity theory, as mentioned earlier, proposes that an individual will assess whether they and their partner receive the rewards deserved based upon the costs they place into the relationship (Hatfield & Traupmann, 1981). In other words, equity is an individual's perceived assessment of whether the rewards they receive from their partner are equal to the costs they incur within the relationship, and vice versa. Inequity can be experienced in two ways – under-benefiting inequity (perceived costs incurred outweigh the perceived rewards received) and over-benefiting inequity (perceived rewards received outweigh the perceived costs incurred; Sprecher, 1998). An individual may assess equity depending on personal perceptions of resource worth. Therefore, partners may assess what they place into the relationship and what they receive differently than their partner (Thibaut & Kelley, 1965). For example, a man may assess the equity of his resource *cost* of buying dinner for his partner and his resource *reward* of receiving a nude photo from his partner. The man may assess the dinner as a *high cost* (it was expensive) while the photo, in his opinion, is a *low reward* (the photo did not provide aspects that he wanted). In contrast, his partner may assess the photo as a *high cost* (there are high consequences if others see it) for herself and the dinner as a *low reward* (it was a cheap dinner).

Disagreement of resource values may create conflict within the relationship, as both partners may believe the net outcomes in this relational interaction to be more costly than rewarding. Negative emotions such as depression, frustration, and anger are often felt when an individual assesses a relationship as under-benefiting (Sprecher, 1992; Sprecher, 1986) because the individual likely believes they deserve more rewards based upon the costs they perceive to have incurred. However, those who receive highly rewarding outcomes (more rewards than costs) are not immune to negative emotions. Although individuals who over-benefit in a relationship generally experience less distress, they are more likely to experience guilt (Sprecher, 1992). Partners who feel distress or guilt due to relationship inequity often attempt to restore relationship balance by changing their contributions or convincing their partner to change (Sprecher, 1986).

### **2.4.3.2 Outcome-interdependence theory and investment model**

Outcome-interdependence theory and investment model (Thibaut & Kelley, 1965) attend to the rewards and costs an individual will receive while in the romantic relationship. A major element of outcome-interdependence theory and investment model is the comparison level. Comparison levels have two components: expected outcomes and best alternative relationship outcome levels. Expected outcome is the net evaluation of rewards and costs that an individual believes they will receive from of a relationship (Byers & Wang, 2004), while the best alternative relationship outcome level is the comparison of their current relationship to what they believe they deserve in a relationship (Laursen & Jensen-Campbell, 1999). Comparing the current relationship to what the individual believes he/she deserves helps an individual determine whether they rely on their partner for particular needs (e.g., emotional support, financial support, etc.), therefore influencing whether the individual is motivated to stay within the relationship (Laursen & Jensen-Campbell, 1999).

Commitment to a partner is created when an individual assesses their current relationship outcomes to be equal to or more rewarding than what they would receive from the best alternative relationship (Thibaut & Kelley, 1965). Comparison levels are subjective, differing between individuals, and are influenced by past experiences, exposures to close relationships, and cultural influences (Thibaut & Kelley, 1965). For example, if an individual has experienced a highly rewarding relationship in the past while their current relationship does not meet the same level of rewards, the individual will likely seek other relationships (i.e., have low commitment). Those receiving better rewards than what can be expected from an alternative relationship are more likely to feel highly committed to their romantic partner (Miller, 2011).

Interdependence, or each partner feeling dependent in some way to the other, is required to maintain a relationship. Those involved within the relationship must experience satisfaction with the social exchanges and rely on the relationship for the expected rewards (Laursen & Jensen-Campbell, 1999). As interdependence deepens due to the investment and desire for social exchanges, partners become exclusive and committed to one another (Laursen & Jensen-Campbell, 1999).

### **2.4.3.3 Interpersonal model of sexual satisfaction**

More specific to sexuality is the Interpersonal Model of Sexual Satisfaction (IEMSS), which focuses on the exchange between sexual partners and the consequences related to sexual

satisfaction (Lawrence & Byers, 1992; Lawrence & Byers, 1995). Within the IEMSS model, sexual satisfaction is a function of: (1) perceived rewards minus costs, (2) comparison level (i.e., comparison of perceived to what is expected) of rewards minus the comparison level of costs, (3) equality (i.e., between the partners) of rewards minus the equality of costs. In other words, sexual satisfaction is a product of an evaluation of rewards/costs (resources given to a partner and received from a partner), a comparison of these perceived rewards/costs to expectations, and the equality that exists between the rewards/costs for themselves and their partner.

Sexual satisfaction is a function of how an individual perceives each of these aspects and is cumulative over time. Perceiving any of the three IEMSS components in a negative fashion can result in decreased sexual satisfaction. In general, those who perceive their sexual experiences as more rewarding, believe their sexual rewards and costs are in line with expectations, and believe their rewards and costs are equal to their partner's rewards and costs will view their sexual relationship as highly satisfying (Byers, Demmons, & Lawrence, 1998; Lawrence & Byers, 1995). As sexting photos, videos, or text-based messages can be perceived as a reward by the receiver or perceived as a cost by the sender, the current study will use the IEMSS to examine the extent to which young adults in ongoing relationships may use sexting as a form of relationship resource, or as a means to gain benefits or repay favours.

#### **2.4.4 Rewards and Costs in a Sexual Relationship**

Sexual activity is essentially a woman's resource because nearly all cultures view women's sexuality as highly valued and men's sexuality as nearly valueless (Baumeister & Vohs, 2004; Symons, 1979). This imbalance is posited to result from differential tendered costs of sexual activity. Men highly benefit (e.g., physiological pleasure) from sex with little cost (e.g., no chance of carrying a child to term), while women are faced with the potentially high cost of pregnancy (e.g., caring a child to term; Symons, 1979) with a one-time reward of physiological pleasure. As the suppliers of sex, women receive culturally dependent rewards based upon the value of her sexual/physical characteristics and the potential *market* within the community (Rudman & Fetterolf, 2014; Symons, 1979). Women with desirable traits that are uncommon within their community will receive more rewards for incurring the cost of sex. Additionally, men report greater sexual motivation than women because of the high reward to low cost ratio. For example, men report more instances of sexual fantasy, arousal, and desire for sex within a given amount of time than women (Baumeister, Catanese, & Vohs, 2001). Women generally

acknowledge the differential gendered views of sex and have been found to use sexuality as a means of reward bestowing on men or to gain rewards for themselves (Baumeister & Vohs, 2004).

Close relationships, as they develop, usually include initial low-cost and low-reward assessments, such as paying for coffee dates and spending limited hours with the new partner. After the initial stages of dating, the close relationship quickly moves to high-cost and high-reward assessments, such as spending many hours together or spending money on expensive trips with one another, especially once in a monogamous relationship (Berger & Bradac, 1982; Knoblock & Solomon, 2003). Longitudinal studies have revealed that partners who make sacrifices (i.e., endure costs) are more committed to their partner than those who are unwilling to make sacrifices (Van Lange, Agnew, Harinck, & Steemers, 1997). Within heterosexual couples, imbalances of involvement are frequently accompanied with imbalances of power (Peplau, 1979). Caldwell and Peplau (1984) found nearly 40% of women reported the power balance in their current relationship as unequal. Those with greater power, for example higher status, education, and income (Caldwell & Peplau, 1984), are found to sacrifice their rewards-costs ratio during relationship courting in order to receive high rewards if courting is successful (Campbell, Forster, & Finkel, 2002). For example, these individuals may spend money on expensive dates and items for their dating partner in order to become monogamous, hoping to receive sexual favours once monogamy is official. Long term, these individuals are also more likely to receive more favourable reward-cost positions within a relationship (Thibaut & Kelley, 1965; Caldwell & Peplau, 1984). Greater relationship satisfaction usually results when each partner exhibits equal power and incurs equal rewards and costs (Caldwell & Peplau, 1984).

#### **2.4.5 Sexting as a Reward and Cost**

Sexting is a specific sexual activity with unique associated costs and rewards (Weisskirch & Delevi, 2011). Determining whether sexting and the consequences of sexting are viewed as rewards or costs is dependent on who sends and who receives a sext. Those who receive a desired sext may view sexting as a reward, while those who send the sext tend to view it as a cost (Weisskirch & Delevi, 2011). Self-reports of sending and receiving of sexts have exposed gender imbalances in sexting behaviours. Women are more likely to send sexts while men are more likely to receive sexts (Mitchell et al., 2012; Wysocki & Childers, 2011). Overall, women are inclined to view sexting as costly, while men tend to view sexting as rewarding (Weisskirch &



Delevi, 2011). During sexting activity, women tend to take on the perceived risky role of sender rather than receiver (Weisskirch & Delevi, 2011), which may explain the trend for women reporting sexting as a costly activity.

Gender differences found within sexting activities can be tied to the power imbalance between men and women. Within our society, men are generally perceived to have more power than women; therefore, women will likely acquiesce to pressure to engage in sexting (Emmers-Sommer et al., 2010). Women may experience similar obligations to sext as the obligation to engage in other forms of sexual favours (Weisskirch & Delevi, 2011). Due to cultural schemas, for example, providing sexual favours after an expensive dinner is provided, women may feel pressure to provide sexts as a means of repayment for resources or to gain future resources (Emmers-Sommer et al., 2010). For example, Western sexual scripts for young adults assume men will plan dates, drive, initiate, and pay for the date activities (Bartoli & Clark, 2006; Berntson, Hoffman, & Luff, 2014; Emmers-Sommer et al., 2010). This imbalance can create discomfort in women, forcing women to reciprocate a favour to her suitor. With an obligation to send a sext, sexting becomes a cost for women instead of an expression of sexual freedom to send a sext. Men, however, will likely view the sext as an expected reward because they will not experience any cost from receiving sexually explicit material.

With this in mind, SET appears to encompass both the sexting behaviours of young adults and their views of sexting as both a reward and cost. Examining sexting behaviours within the IEMSS model and SET framework may provide a deeper understanding of the role that sexting plays in young adults' relationships and the specific relationship motivations that young adults have for engaging in sexting. Therefore, the current study will explore the associations among perceived rewards and costs of sexting, sexting behaviours, sexual self-disclosure during sexting experiences, and relationship/sexual satisfaction within the framework of SET.

## **2.5 Sexual Self-Disclosure**

Strong communication skills are required in order for an individual in romantic relationships to experience romantic satisfaction (Meeks, Hendrick, & Hendrick, 1998). Self-disclosure is the act of verbally revealing private information, including thoughts, feelings, and experiences to others (Archer, 1980; Derlega, Metts, Petronio, & Margulis; 1993). The action of self-disclosing, verbally expressing and discovering of one's self and one's own capabilities, is related to a person's well-being, identity, and self-worth (Pennebacker & Chung, 2007; Tanis,

2008; Utz, 2015). Self-disclosure is a key element of relationship development and maintenance (Pornsakulvanich, Haridakis, & Rubin, 2008) and is associated with beneficial outcomes including intimacy (Tolstedt & Stokes, 1984), closeness with a partner (Valkenburg & Peter, 2007), perceived relationship quality (Valkenburg & Peter, 2009), safety in the relationship (Prisbell & Andersen, 1980), and relationship certainty (Tidwell & Walther, 2002). In order to self-disclose and create a more intimate relationship with a partner, an individual must intentionally reveal personal information (Dindia, 2000), such as sexual preferences, and ignore feelings of anxiety produced by the fear of losing their partner (Merkle & Richardson, 2000; McKenna, Gree, & Gleason, 2002; Rosen et al., 2008).

### **2.5.1 Self-disclosure in Romantic Relationships**

Self-disclosure positively predicts closeness in romantic relationships (Wheless, 1976), where increased breadth (number of areas disclosed) and depth (non-superficial and personally focused; Utz, 2015) of conversations increase the likelihood of forming a close relationship (Wheless, 1976) in both online and face-to-face interactions (Parks & Floyd, 1996; Parks & Roberts, 1998). Self-disclosure is highest when it occurs between two people, and it results in increased intimacy by creating a special bond between the two individuals (Solano & Dunnam, 1985). This intimacy and bond develops because: (1) we like people who disclose, (2) we disclose with people we like, and (3) after we disclose, we like the people with whom we have disclosed (Collins & Miller, 1994). This means that a person will be more likely to have a highly intimate relationship with which they have a reciprocal disclosure relationship. In the case of romantic and sexual relationships, the more a couple discloses personal information, for example their sexual desires and preferences, the more intimate the relationship will feel for both partners.

Self-disclosure can be frightening when developing new relationships (Meleshko & Alden, 1993). Trust is nearly always required in order for one to reveal their deepest inner feelings face-to-face (Bargh, McKenna, & Fitzsimmons, 2002), while communication via text-based message tends to include greater self-disclosure and intimacy than face-to-face (Autheunis, Valkenburg, & Peter, 2007; Jiang, Bazarova, & Hancock, 2013; Tidwell & Walther, 2002) or video communication (Joinson, 2001). This difference in self-disclosure found between text-message and face-to-face communication may be a result of limited cues (verbal, vocal, or visual) provided through text-based messages (Ruppel, 2015), therefore reducing an individual's self-consciousness (Schouten, Valkenburg, & Peter, 2007; Valkenburg & Peter, 2007). For that

reason, partners who normally experience anxiety while expressing sexual preferences to a partner may be more comfortable during text-based communication because the social cues would be eliminated. This means that couples could experience higher sexual self-disclosure when discussing sexual topics via text-based messages. Having the negative consequences of self-disclosure removed, partners may increase rewards (expressing desires) and decrease costs (experiencing judgment or rejection) during text-based communication.

### **2.5.2 Online Self-Disclosure**

Online communication, specifically online self-disclosure (Utz, 2015), has received a considerable amount of attention since its debut (Rosen, Cheever, Cummings, & Felt, 2008). A concern with online communication is the inability to read emotions that are normally paired during face-to-face conversation (Mesch, 2009). Those interacting through online media must explicitly state how they are feeling (through words or photos) to prevent the recipient from misconstruing their statements. However, the lack of social cues does not decrease the pleasantness of the interaction. Communicating through online media, for example e-mail or text messages, can be equally or more desirable than face-to-face (Walther, 1996). Those with communication avoidance may find it easier to discuss intimate topics with a partner online (Pornsakulvanich et al., 2008). In other words, although there are costs of communicating through online tools, many people still experience high rewards. Unlike face-to-face communication, online communication does not appear to require the same level of trust. People tend to divulge more intimate feelings and information about themselves to a recipient online rather than face-to-face (Wallace, 1999; Parks & Floyd, 1996; see Rosen et al., 2008), an outcome of little to no negative visual cues presented by the recipient (Ruppel, 2015). As a result, online communication can include self-disclosure in high levels of breadth and depth (Pornsakulvanich et al., 2008) because online discussions are found to include more in-depth questions and conversations (Tidwell & Walther, 2002).

Those who can better express their selves in face-to-face communication are more likely to form close relationships with those whom they interact (Rosen et al., 2008). Similar patterns are found with online communication where those who can explicitly express their inner feelings are more likely to have stronger close online relationships (McKenna et al., 2002). This is likely due to the development of liking and trust from intimate self-disclosure (McKenna et al., 2002; Rosen et al., 2008). People tend to be highly concerned with maximizing positive and

minimizing negative encounters with a partner (Ruppel, 2015), both of which are products of a partner's reaction to the actor.

Interactions during relationship development are perceived as highly threatening because of the high chance of rejection (Wilson, Kunkel, Robson, Olufowote, & Soliz, 2009). People are less likely to self-disclose when they anticipate their partner will react negatively (Ruppel, 2015). Therefore, communicating through text messages increases self-disclosure earlier within the relationship, creating a fast feeling of intimacy. It has been suggested that interactions online, unlike face-to-face interactions, may provide a decreased feeling of anxiety (Knox, Daniels, Sturdivant, & Zusman, 2001). Less anxiety during online communication allows an individual to present their true self, whereas an individual interacting anxiously face-to-face is more likely to present a "presentation" self (Bargh, McKenna, & Fitzsimmons, 2002). These findings suggest that an individual may feel more intimidated to express true feelings to a partner when discussing intimate topics, for example sexual likes and dislikes, face-to-face than if discussing the topics online. Therefore, many sexual desires may go unspoken between partners, keeping sexual satisfaction stagnant.

Online communication methods, including text messages, can be used to manage personal relationship goals (O'Sullivan, 2000; Rettie, 2009). As relationships develop and grow, individuals generally become more concerned with the experiences with their partner, which may impact the way that communication tools are used (Ruppel, 2015). This means that text messages are used strategically throughout a relationship in order to manage interactions between two partners. Text messages may begin as conversational tools, but later evolve into a means of discussing sexual interests and experiences with a partner. Partner responsiveness, specifically during intimate disclosure, is a key component of the self-disclosure psychological model (Utz, 2015), since the development of intimate relationships is an active process (Reis & Shaver, 1988). This is due to the reactions given to the self-disclosure. Partners' reactions mediate the effects of self-disclosure on intimacy (Laurenceau, Barrett, & Pietromonaco, 1998), which means that the reactions of a partner when an individual self-discloses can increase or decrease the intimacy between the couple. In order to increase feelings of intimacy, it is important that the received reactions are positively interpreted as understanding, caring (Reis et al., 1988), and enthusiastic (Gable, Reis, Impett, & Asher, 2004). Therefore, during high self-

disclosure sexting experiences, feelings of intimacy can be increased when a partner presents reactions that include understanding, care, and enthusiasm.

### **2.5.3 Self-disclosure and Sexuality**

Self-disclosure is not only a requirement of friendship. With relationship development comes the expectation of more intimate communication between partners, leading to discussions related to sexual topics (Wheless, Wheless, & Baus 1984), allowing the couple to inform each other of their sexual needs, preferences, and desires (Cupach & Comstock, 1990). Romantic couples require high self-disclosure in order to experience high intimacy with one another (MacNeil & Byers, 2009). Sexual self-disclosure, the amount an individual discusses their sexual preferences with a sexual partner (Rehman, Rellini, & Fallis, 2011), is a major component of a couples' sexual satisfaction. Sexual satisfaction in long-term relationships is positively associated with greater amount of sexual self-disclosure (MacNeil & Byers, 1997). This is due to the ability of each partner fulfilling his or her sexual needs as their sexual likes and dislikes are expressed to increase or decrease what they desire from their partner, resulting in sexual satisfaction. By disclosing sexual preferences and desires to a partner, one can increase relationship closeness and intimacy (Metts & Cupach, 1989; Rehman et al., 2011). This enhancement between the partners increases sexual rewards and decreases sexual costs, enhancing overall sexual satisfaction in both partners (Metts & Cupach, 1989). Self-disclosing one's own sexual preferences is associated with one's sexual satisfaction in both genders (Rehman et al., 2011).

Although discussions related to sexual topics increases intimacy, general communication is more common than sexual communication (Cupach & Comstock, 1990; Offman, 2004). The difficulty in discussing sexual topics is likely attributed to an individual assessing sexual topics as extremely personal and self-revealing, even more so than sex itself (Pliskin, 1997) or viewing sexual communication as embarrassing (Hutchinson, 1998). Therefore, sexual self-disclosure is likely discussed less than general topics and avoided during face-to-face conversations.

### **2.6 Sexual Self-Esteem**

Global self-esteem is the overall value a person places on him or herself, based on personal appraisals of specific traits or abilities, that influence all aspects within one's life such as career aspirations and mental/physical health (Sules & Krizan, 2005). An important concept of global self-esteem is that the evaluation of self can vary across different aspects of the self

(Oattes & Offman, 2007). This means that an individual's educational self-esteem may be higher than their sexual self-esteem. However, findings pertaining to global self-esteem have produced mixed results related to sexual self-esteem (Ethier et al., 2006; Seal, Minichiello, & Omodei, 1997; Oattes & Offman, 2007), possibly a consequence of overgeneralizing global self-esteem as a measure of sexual self-esteem. Just as sexuality is a small part of an individual's persona, sexual self-esteem is one aspect of global self-esteem (Zeanah & Schwarz, 1996).

Sexual self-esteem, also known as sexual self-perception, is the value an individual places on their self as a sexual being, including sexual identity and their perceived sexual acceptability from others (Mayers, Heller, & Heller, 2003) or the reactions an individual has to their appraisal of their own sexual thoughts, feelings, and behaviours (Zeanah & Schwarz, 1996). A person may have an overall positive image of their self (high global self-esteem) while experiencing sexual insecurity (low sexual self-esteem). In this situation, global self-esteem would not capture the relationship between self-esteem and sexual behavior. Therefore, to assess the concept of self-esteem related to sexuality, a more focused assessment of self-esteem, specifically sexual self-esteem, is required (Mayers et al., 2003; Offman & Matheson, 2004).

Global and sexual self-esteem may relate to an individual's ability to communicate with others (Ethier et al., 2006; Ferroni & Taffe, 1997). Gender differences in levels of self-esteem and communication have been found. Men tend to report higher levels of global self-esteem (Walsh, 1991) and sexual self-esteem (Brafford-Squiers, 1998). Communication differences are not as clear. Men tend to communicate sexual needs to their partner more often than women; (Rosenthal et al., 1991) however, women report initiating communication related to sexual health and safe practices more than men (Rosenfeld, 2004; Troth & Peterson, 2000). The gender difference may result from women perceiving sex as high risk, specifically in the context of sexually transmitted infections (STIs) or pregnancy, a concern not as apparent to men (Rosenfeld et al., 2004). Overall, communication mediates sexual self-esteem in intimate relationships (Oattes & Offman, 2007). Those who communicate their sexual preferences with their partner are more likely to experience high sexual self-esteem and a more intimate relationship with their romantic partner (Oattes & Offman, 2007).

Associations between self-concepts and sexual self-esteem are readily mentioned within the literature. However, issues affecting sexual self-esteem are suggested but not explicitly stated and little discussion as to what factors contribute to low sexual self-esteem in women are ever

brought forth (Heinrichs, MacKnee, Auton-Cuff, & Domene, 2009). Dissatisfaction with sexual performance, ability, and one's own sexual body parts are associated with body satisfaction and eating disorders (Ackard, Kearney-Cooke, & Peterson 2000; Cash, 2002). A key factor in sexual self-esteem may be body satisfaction, however, the direction of the relationship (i.e., does sexual self-esteem influence body satisfaction, or vice versa) is undetermined. Those who report high frequency of masturbation and high body satisfaction are more likely to report high sexual self-esteem (Ellison, 2000; Shulman & Horne, 2003).

Damaged or low sexual self-esteem in women have been attributed to negative life events (Mayers et al., 2003). The impact of such negative events (e.g., physical or psychological abuse) can develop into a disability (Mayers et al., 2003). However, high sexual self-esteem can decrease the impact of negative events. Women who have high sexual self-esteem appear to report less vulnerability and more resistance to negative events (Offman & Matheson, 2004), suggesting that a woman's sexual self-esteem is interconnected with global self-esteem. Therefore, building or creating high sexual self-esteem in women is important because it fosters an overall sense of self-esteem throughout their lives. Positive experiences, for example positive sexual communication and support from a partner, will not only facilitate the growth of sexual self-esteem in women, but also help create an overall sense of self-esteem and self-worth for women. Therefore, it is important for partners to openly discuss and support one another's sexual perceptions without judgment. Sexting, a form of communication that can decrease the level of perceived judgment, can be used as a potential tool to increase sexual self-esteem in women.

## **2.7 Attachment, Sexual Communication, and Relationship/Sexual Satisfaction**

Attachment theory is a psychological model that attempts to explain specific facets of individuals' long and short-term relationships with others (Waters, Corcoran, & Anafarta, 2005). Specifically, this theory is used to understand individuals' interactions as well as the formation of relationships (Fraley & Shaver, 2000). Although attachment theory was developed to examine and explain attachment styles of infants to their primary caregivers (Ainsworth, Blehar, Waters, & Wall, 1978), it is currently recognized as an appropriate theory to examine individuals' attachment styles within their adult romantic relationships (Drouin & Landgraff, 2012; Mikulincer & Shaver, 2007). This is due to the similarity in bonds found between mother and infant and two individuals in a romantic relationship (Hazen & Shaver, 1987). These similarities

are suggested to result from the formation of attachment from infancy, forming the basis of attachment in later years (Fraley & Shaver, 2000).

The model of adult attachment within romantic relationships initially began with the belief that individuals fall within one of three categories: secure, avoidant, or anxious (Hazan & Shaver, 1987). Secure attached individuals were reported to find it easy to be close to others, depend on others, and not worry about abandonment, while avoidant attached individuals were reported to be uncomfortable around others, find it difficult to trust/depend on others, and be nervous of intimacy. Lastly, anxious attached individuals were reported to be reluctant to form intimate relationships, yet still desired close relationships with a partner (Hazan & Shaver, 1987). Each of the three attachment styles were found to consistently correlate with characteristics related to experiences of love between dyadic couples (Feeney & Noller, 1991). For example, secure attachment correlated with relationship satisfaction and intimacy, avoidant attachment correlated with decreased relationship satisfaction and intimacy, and anxious attachment correlated with decreased intimacy and commitment (Feeney & Noller, 1991). Although the three-category model was used as the primary conceptualization of attachment, recent attachment literature suggests that a two-dimensional model of attachment is more appropriate for examining attachment styles within romantic relationships (Fraley & Shaver, 2000).

The currently accepted model includes the two dimensions of attachment: avoidance and anxiety. The avoidance dimension reflects the degree to which individuals feel comfortable experiencing and expressing intimacy with others, while the anxiety dimension reflects the degree to which individuals ruminate and/or worry about rejection from their partner (Hazan & Shaver, 1994). Individuals' attachment style is dependent on the degree to which they fall along the continuum. For example, individuals who have a secure attachment style are low on attachment anxiety and on attachment avoidance, while securely attached individuals (i.e., low on avoidance and on anxious attachment dimensions) report positive sexual experiences and high sexual satisfaction (Mikulincer & Shaver, 2007), and tend to enjoy a variety of sexual activities (Feeney & Noller, 2004). Conversely high degrees of anxiety and avoidance are associated with low levels of sexual satisfaction (Butzer & Campbell, 2008). Specifically, anxiously attached individuals report taking part in sexual behaviours in order to reduce insecurity, increase intimacy (Birnbaum, 2007; Feeney & Noller, 2004), and increase self-esteem (Cooper et al., 2006), whereas avoidant attachment individuals are found to engage in sexual behaviours that are



less intimate (e.g., casual sex, having sex to impress others rather than romantic goals; Gentzler & Kerns, 2004; Schachner & Shaver, 2004). Therefore, the discomfort experienced during intimacy by individuals who score high on either anxious or avoidant attachment dimensions extends to romantic relationships (Butzer & Campbell, 2008).

Thus, anxious or avoidant individuals may experience discomfort and lack of reward during sexual relationships (Shaver & Hazan, 1988), which may translate to a lack of perceived rewards and a lack of self-disclosure during sexting. In addition, anxiously attached individuals are found to report difficulties in expressing sexual self-disclosure, specifically sexual satisfaction, desires, and enjoyment to their partner (Butzer & Campbell, 2008), which may extend to sexting communication. To date, little research pertaining to sexting and attachment has been conducted. However, one study has found that attachment anxiety significantly predicts sending sext messages offering sexual activity (Weisskirch & Delevi, 2011).

### **2.8 Application of SET to the Current Study**

The current study will examine the relationship between sexual self-disclosure during sexting and sexual satisfaction in a sample of young adults. More specifically, do individuals who report greater levels of self-disclosure during sexting report higher levels of sexual satisfaction? The relationship between sexual self-esteem and sexual self-disclosure during sexting will also be examined. To determine if there is a possible connection between sexting and sexual satisfaction, two aspects of sexual relationships and sexual experiences will be examined: sexual self-disclosure and perceived rewards minus costs of sexting.

Sexual self-disclosure appears to be an important aspect of sexuality. Associations between sexual self-disclosure and sexual self-esteem (Oattes & Offman, 2007), as well as sexual self-disclosure and sexual satisfaction (MacNeil & Byers, 1997) have been found. Although research pertaining to sexual self-disclosure has utilized SET to explain its association with sexual satisfaction, no research has examined the relationship with specific forms of sexual communication (e.g., sexting). The distinction between sexting and other forms of sexual communication is important because of the current negative perceptions of sexting presented within media (Zhang, 2010). However, although some view sexting as a negative sexual behaviour, it also provides a safe alternative for sexual self-disclosure (Knox, Daniels, Sturdivant, & Zusman, 2001; Lippman & Campbell, 2012; Renfrow & Rollo, 2014). Sexting, a method of communication that may decrease levels of anxiety due to its ability to eliminate face-

to-face rejection/judgment from a romantic partner, could be used as a tool for sexual self-disclosure. The current study will examine perceptions of rewards and costs associated with sexting and its association with sexual self-disclosure. If an individual views sexting as too costly, it is unlikely that the individual will utilize sexting within their current romantic relationship. Those who view sexting as a reward may be more likely self-disclose their sexual preferences, receive positive responses from their current partner, and increase their sexual self-esteem.

## **2.9 Research Questions and Hypotheses**

### **2.9.1 Attitudes Toward Sexting**

#### **a) Men will view sexting as more rewarding, while women will view sexting as more costly**

Sexting is likely to be perceived as a reward by those who receive a sext and a cost by those who send a sext (Weisskirch & Delevi, 2011). Sexting roles tend to be gendered: women are more likely to send sexts while men are more likely to receive sexts (Mitchell et al., 2012; Wysocki & Childers, 2011). Therefore, sexting is often viewed as a cost for women rather than an expression of sexual freedom (Weisskirch & Delevi, 2011). However, as a receiver of a sext, men are more likely to view sexting as a reward because they do not incur costs from receiving sexually explicit material (Weisskirch & Delevi, 2011). Therefore, it is hypothesized that the same pattern of rewards and costs by gender found in previous studies will be found in the current study.

#### **b) Women will report more negative attitudes toward sexting than men**

It is hypothesized that, due to the gender differences found in sexting, women will be more likely to report negative attitudes toward sexting than men as a result of pressure from a romantic partner (Walker, Sanci, & Temple-Smith, 2013; Weisskirch & Delevi, 2011). Men are not expected to hold as significantly negative attitudes because they do not experience the same level of pressure to send sexts as women (Mitchell et al., 2012; Wysocki & Childers, 2011). In addition, information related to the negative consequences of sexting (e.g., psychological and emotional consequences) may increase negative attitudes towards sexting (Weisskirch & Delevi, 2011). Women, more often than men, perceive their self as more vulnerable to such consequences because women tend to send sexts while men tend to receive (Weisskirch &

Delevi, 2011). Therefore, it is hypothesized that women will report more negative attitudes towards sexting than men.

**c) Women's motivations to sext will be more oriented to relationship management while men's motivations to sext will be more oriented to relationship enhancement**

Women report utilizing sexting as a method of repayment to their romantic partner (Emmers-Sommer et al., 2010). It has been suggested that women who perceive imbalance in their relationship will incur sexting costs in order to reinstate balance in the relationship (Emmers-Sommer et al., 2010; Weisskirch & Delevi, 2011). This presents the possibility that women choose to sext for partner-oriented reasons (i.e., relationship management). Men, however, are significantly more likely to receive sexts, therefore receiving a reward. This means that men may be more likely to choose to sext for more self-oriented reasons (i.e., relationship enhancement) – to receive a positive reward.

**d) Positive attitudes toward sexting will predict more engagement in sexting activity**

Those who sext as means of sexual expression are likely to view sexting as a reward (Weisskirch & Delevi, 2011). Receiving benefits (i.e., rewards) from sexting, such as sexual arousal, will increase an individual's positive attitude towards sexting, which may result in the increased likelihood of engaging in sexting. Thus, it is hypothesized that the more rewarding an individual views sexting, the more likely they are to sext, which will likely increase their engagement in sexting.

### **2.9.2 Sexting and Sexual Self-disclosure**

**a) Individuals will report more sexual self-disclosure during sexting than face-to-face**

People strive to increase positive and decrease negative encounters with an intimate romantic partner (Ruppel, 2015). Sexual self-disclosure is perceived as highly threatening (Wilson et al. 2009) and may be avoided in order to decrease the chances of negative encounters. Communicating through text messages, however, may increase self-disclosure by decreasing anxiety (Knox et al., 2001). Therefore, those who experience angst during face-to-face communication may be more comfortable during text-based communication due to the elimination of social cues from an intimate romantic partner, resulting in higher sexual self-disclosure when discussing sexual topics via text-based messages.

**b) Sexting frequency, sexual self-esteem, and the balance of rewards and costs associated with sexting will predict levels of sexual self-disclosure during sexting**

A partner's reaction mediates the effects of self-disclosure on intimacy (Laurenceau, Barrett, & Pietromonaco, 1998). Individuals who may experience fear of face-to-face rejection may feel more comfortable self-disclosing through online methods, such as sexting. Individuals are more likely to take part in a behaviour if they perceive the behaviour as rewarding (Lawrence & Byers, 1992; Lawrence & Byers, 1995). Thus, if an individual experiences positive reactions with a partner during sexting, there is an increased likelihood that additional sexting activity will occur, therefore increasing the breadth and depth of topics and sexual self-disclosure.

Sexual self-disclosure allows an individual to inform their partner of their sexual needs, preferences, and desires (Cupach & Cornstock, 1990). However, individuals may experience anxiety related to sexual self-disclosure due to a fear of rejection (Lee et al., 2013; Shafron-Perez, 2009), a feeling that is decreased through online communication (Knox et al., 2001). By disclosing sexual preferences and desires to a partner, one can increase relationship closeness and intimacy (Metts & Cupach, 1989; Rehman et al., 2011), increase the likelihood of a positive reaction to their expressed sexual preference, and thereby positively influence their sexual self-esteem.

Lastly, based on SET, the perception of sexting as more rewarding than costly will be associated with sexual self-disclosure during sexting. Individuals who perceive a social exchange as rewarding will tend to take part in the behaviour more than individuals who perceive the exchange as costly (Lawrence & Byers, 1992; Lawrence & Byers, 1995). Previous research has found that general perceptions of rewards and costs of communication with a romantic partner are associated with increased sexual self-disclosure (Byers & Demmons, 1999). Therefore, a similar association is expected with sexting, a more novel form of communication between sexual partners.

### **2.9.3 Sexual and Relationship Satisfaction**

**a) Sexual self-disclosure during sexting will be associated with relationship satisfaction**

Increased breadth and depth of conversations between romantic partners increases the formation of a close relationship (Utz, 2015; Wheelless, 1976). Self-disclosing topics, such as sexual preferences, increases the breadth and depth of topics between partners and is positively

related to closeness in romantic relationships and romantic satisfaction (Wheeless, 1976). The more a couple reciprocally discloses personal information, for example their sexual desires and preferences, the more satisfying the intimate relationship will feel for both partners (Caldwell & Peplau, 1984). Therefore, those who eliminate the apprehension of self-disclosing sexual preferences with a partner through the use of sexting are more likely to increase intimacy with their romantic partner as well as increase their romantic satisfaction.

**b) Sexual self-disclosure during sexting will be associated with sexual satisfaction**

In order to experience high intimacy, couples require high self-disclosure (MacNeil & Byers, 2009). Positive relationships between sexual satisfaction and sexual self-disclosure have been found (MacNeil & Byers, 1997; Rehman et al., 2011). Providing sexual preferences with a partner increases the likelihood that said preferences would be attended to during sexual experiences with that partner (Cupach & Comstock, 1990; Rehman et al., 2011). Therefore, it is hypothesized that those who report high levels of sexual self-disclosure will also report high sexual satisfaction.

## CHAPTER 3

### METHOD

#### 3.1 Participants

Individuals between the ages of 18-29, who self-identified as currently in an intimate romantic relationship (i.e., a relationship that is perceived by the participant as committed as well as feeling a positive affective, cognitive, and physical closeness with the partner in a reciprocal, although not necessarily symmetrical, relationship; Moss & Schwebel, 1993), were sought for the current study. This age group was chosen because developmentally young adults in this age group are forming their sexual identity, are concerned with maximizing positive and minimizing negative encounters with their committed partner (Ruppel, 2015), and report using sexting more frequently than all other age groups (Dir et al., 2013).

Three hundred sixty-one ( $N = 361$ ) participants (266 women and 95 men) between the ages of 18 – 29 ( $M = 21.02$ ;  $SD = 2.29$ ) took part in the study. Participants were recruited from the University of Saskatchewan through the Introductory Psychology Participant Pool and from the broader student body using the student log in portal (PAWS). Participants from the Introductory Participant Pool were required to sign up via the SONA website where several other studies are posted (Appendix O), and were compensated one (1) bonus point towards their Introductory Psychology course for their time, in line with Department of Psychology policies. PAWS participants were recruited through an advertisement placed on the PAWS portal (Appendix O). The study was advertised as addressing “Sexting in Intimate Romantic Relationships.” The vast majority of participants identified as White/Caucasian, had been in their current relationship for less than three years, and were heterosexual (see Table 3-1 for participant demographic characteristics). A total of 688 participants were excluded from the potential 1050 participants because of incomplete data ( $n = 521$ ), failing to meet study requirements ( $n = 192$ ), and/or completing the survey more than one time ( $n = 7$ ).

#### 3.2 Procedures

Ethical approval was sought and granted (REB 15-373) from the Research Ethics Board of the University of Saskatchewan. The study followed the ethical standards set out by the

Research Ethics Board. Data were collected via an on-line survey, hosted on the Fluid Survey® platform. Participants were asked to click the web-link provided within the advertisement, which directed the participant to the survey. Participants first viewed a consent form (Appendix A) explaining the purpose and procedure of the current study. The consent form reminded participants that they may withdraw their participation at any time during the study without penalty and that they were not required to answer any questions that made them feel uncomfortable. Participants were then asked to read and click the appropriate response button if they wished to participate. Subsequent to providing consent, participants were asked to complete a self-administered questionnaire. All participants received the same questionnaire (Appendices B-M), which required 15 to 20 minutes to complete.

Participants were asked to complete survey measures related to their current relationship. The survey contained measures tapping into the constructs of sexting attitudes and behaviours, sexual and relationship satisfaction, sexual self-esteem, and patterns of sexual self-disclosure (Appendices B-M). These scales are not copyrighted and are available in the public domain. Participants were also asked a series of basic demographic questions in order to determine the parameters of the sample and assist in determining whether the sample included opinions and attitudes of a wide variety of people. Upon completion of the questionnaire, participants were thanked for their participation and provided a debriefing form (Appendix N) along with the researcher's contact information, which the participants were encouraged to read and print off for their records.

Table 3-1  
*Participant Characteristics*

Variable	<i>N</i>	%
Sex		
Women	266	73.5
Men	95	26.2
Ethnicity		
White/Caucasian/European Canadian	292	80.7
Asian	39	10.8
Aboriginal (First Nations, Metis, or Inuit)	7	1.9
Black/African Canadian	4	1.1
Hispanic or Latino	1	0.3
Other	14	3.9
Prefer not to respond	5	1.4
Sexual Orientation		
Heterosexual	314	86.7
Not Heterosexual	48	13.3
Bisexual	28	7.7
Gay/Lesbian	6	1.7
Unsure	5	1.4
Other	9	2.5

### 3.3 Measures

#### 3.3.1 Sexual Self-Disclosure

The *Sexual Self-Disclosure Questionnaire* (SSDQ; Byers & Demmons, 1999) was used to assess the level of sexual self-disclosure participants perceived between themselves and their partner in both face-to-face interactions (i.e., all types of sexual self-disclosure) and during sexting (i.e., sexual self-disclosure during sexting; modified version of the SSDQ). The measure consists of 12 items. Six of the items target disclosure regarding enjoyable sexual activities while the remaining six items assess disclosure regarding unenjoyable sexual activities they have experienced as a couple. Participants indicated, using a seven-point scale, ranging from 1 = *nothing at all* to 7 = *everything*, the extent of their sexual self-disclosure with their current romantic partner. Missing data were replaced with a prorated score of the other items in the corresponding sub-set. A composite score for disclosing sexual likes and sexual dislikes was created by averaging the item scores within each sub-set, where no self-disclosure equals one (1) and full sexual self-disclosure equals seven (7). Past research conducted with dating couples found the SSDQ internal consistency to be high, with Cronbach's  $\alpha$  values of .86 (MacNeil & Byers, 1999) to .94 (MacNeil & Byers, 2003). The internal consistency for the SSDQ was high



for the current study, with an overall Cronbach's  $\alpha$  value of .94 for the original measure and .94 for the modified sexting measure.

### 3.3.2 Measurement of Exchange

The *Interpersonal Exchange Model of Sexual Satisfaction Questionnaire* (IEMSS; Lawrence & Byers, 1995) model proposes that sexual satisfaction is influenced by the balance of sexual rewards and costs, how the rewards and costs compare to expected rewards and costs, and the perceived equality of rewards and costs between romantic partners (Lawrence & Byers, 1995). However, for the current study, examination of a balance of rewards and costs will be the sole focus. This aspect is most important for the current study because it may best explain past research findings where young adults express that sexting is costly, yet continue to take part in sexting. The IEMSS Questionnaire is comprised of the following three individual self-report rating scale measures and a self-report sexual rewards and costs checklist.

**Sexual satisfaction.** The *Global Measure of Sexual Satisfaction* (GMSEX) measures general sexual satisfaction for individuals in a sexual relationship. Participants were provided the question, "Overall, how would you describe your sexual relationship with your partner?" and were asked to rate their sexual relationship on five seven-point bipolar scales: *good-bad*; *pleasant-unpleasant*; *positive-negative*; *satisfying-unsatisfying*; and *valuable-worthless*. Scores on the GMSEX range from 5 to 35, where higher scores reflect higher sexual satisfaction. Past research conducted with dating couples found internal consistency for the *GMSEX* to be high, with Cronbach's  $\alpha$  values of .95 or greater (Lawrence & Byers, 1999; MacNeil & Byers, 2003). The current study reported a Cronbach's  $\alpha$  value of .92.

**Relationship satisfaction.** The *Global Measure of Relationship Satisfaction* (GMREL) is identical to the GMSEX, however, the respondents rated their overall relationship satisfaction with their current romantic partner. Participants were provided the question, "Overall, how would you describe your overall relationship with your partner?" and were asked to rate their sexual relationship on the same five seven-point bipolar scales. The GMSEX was scored from 5 to 35, where higher scores reflect higher relationship satisfaction. Past research conducted with dating couples found internal consistency for the *GMREL* to be high, with Cronbach's  $\alpha$  values of .94 or higher (Lawrence & Byers, 1999; MacNeil & Byers, 2003). The current study reported a Cronbach's  $\alpha$  value of .95.

**Levels of rewards and costs.** The *level of sexual rewards and level of sexual costs* scale examines perceptions of sexual rewards and costs within a current romantic relationship. Respondents were asked to report their perceived level of rewards and costs, on a scale ranging from 1 = *not at all rewarding* to 8 = *extremely rewarding* (8), by the following two questions: (1) “Think about the rewards that you have experienced in your sexual relationship with your partner in the last 3 months. How rewarding is your sexual relationship with your partner?”, and (2) “Think about the costs that you have experienced in your sexual relationship with your partner in the last 3 months. How costly is your sexual relationship with your partner?” Each of the scores has the possible range of minus (-) 8 to 8. A score above zero indicates the participant perceives the relationship with their current romantic partner as rewarding, while a score below zero indicates the participant perceived the relationship with their current romantic partner as costly. The higher the value (above or below zero) the more rewarding/costly the participant perceives the relationship experience with a current romantic partner. The balance of sexual exchanges (rewards minus costs) is calculated by subtracting the level of perceived costs score from the level of perceived rewards score. This measure has been found to correlate with sexual satisfaction and is reported to have a test-retest reliability of .67 (over three months; Lawrance & Byers, 1995).

For the purpose of the current study, I also incorporated a modified version that examined the level of sexual rewards and the level of sexual costs participants perceived during sexting. For this modified measure, participants were asked: (1) “Think about the rewards that you have experienced while sexting with your partner in the last 3 months. How rewarding is sexting with your partner?”, and (2) “Think about the costs that you have experienced while sexting with your partner in the last 3 months. How costly is sexting with your partner?” The response scale and the scoring scheme was the same as described for the original.

**Rewards and costs checklist.** The last portion of IEMSS was the Rewards/Costs Checklist (RCC), which was modified in order to examine rewards and costs related to sexting. The measure was comprised of 46 items, each of which are a component (e.g., “The frequency of sexting” and “The degree of privacy my partner and I have for sexting”) of sexual exchange that an individual may experience as a reward, a cost, both a reward and cost, or neither a reward or cost to their sexual relationship. Participants checked off which items, in their opinion, are rewards or costs. The total number of rewards and costs were determined by summing the

number of rewards and costs endorsed by the individual. The higher the overall value for rewards or costs then the higher the perceived number of rewards or costs for that individual.

### **3.3.3 Sexual Self-Esteem**

The *Sexual Self-Esteem Inventory for Women* (SSEI-W; Zeanah & Schwarz, 1996) is an 81-item self-report measure that assesses self-perceptions of sexuality. Although the current measure was created primarily for women, the SSEI-W has been validated with men, demonstrating comparable psychometric properties as those found in women studies (Brafford-Squiers, 1998). The SSEI-W scale is the most appropriate measure of sexual self-esteem due to its specific definition of sexual self-esteem, an “individual’s affective reactions to their subjective appraisals of their sexual thoughts, feelings, and behaviours” (Zeanah & Schwarz, 1996). This specific definition allows for a homogenous set of items that will directly measure the construct. Other scales vaguely define sexual self-esteem, even equating the term with sexual self-concept (Zeanah & Schwarz, 1996). Therefore, the measure was deemed appropriate.

All items were rated on a six-point Likert-style scale, with 1 = *strongly disagree* and 6 = *strongly agree*. Examples of items include “I wish I were better at sex” and “I feel emotionally vulnerable in a sexual encounter”. Composite sexual self-esteem scores were calculated by summing all items. The higher the overall score, the higher an individual’s sexual self-esteem (Zeanah & Schwarz, 1996). Past Cronbach’s  $\alpha$  values for overall sexual self-esteem are found to be excellent at .96 (James, 2011), while the subscales were found to be good to excellent: .85 (moral judgment), .93 (skill/experience), .88 (control), .90 (adaptiveness), and .94 (attractiveness) (Zeanah & Schwarz, 1996). Cronbach’s  $\alpha$  values for the current study’s overall sexual self-esteem was .87, while the Cronbach’s  $\alpha$  values for the subscales were as follows: .89 (moral judgment), .94 (skill/experience), .88 (control), .91 (adaptiveness), and .92 (attractiveness).

### **3.3.4 Sexting Behaviours**

The current study used a modified version of a sexting behaviours questionnaire developed by Weisskirch and Delevi (2011). Originally the questionnaire included five yes or no statements: *sent a sexually suggestive photo or video of myself*, *sent a sexual photo or video of myself in underwear or in lingerie*, *sent a nude photo or video*, *sent a sexually suggestive text*, and *sent a text message propositioning sexual activity*. The current study modified the questions to appear when participants answered *yes* to any of the four qualifier questions related to sexting

“I have sent my current romantic partner a nude or semi-nude picture through electronic means”, “I have sent my current romantic partner a sexually suggestive text message”, “My current romantic partner has sent me a nude or semi-nude picture through electronic means”, and “My current romantic partner has sent me a sexually suggestive text message”). All eight items were rated on a five-point scale, with 1 = *never*, 2 = *rarely*, 3 = *sometimes (e.g., monthly)*, 4 = *very often (weekly)*, and 5 = *frequently (e.g., daily)*. Weisskirch and Delevi’s (2011) questionnaire was previously used in sexting research as a quick assessment of sexting behaviours in adolescents and young adults (Manuel, 2012).

The current study examined sent/received photos and videos by all electronic means, while examining only textual based sexting behaviours that occur during text message. Therefore, text-based sexting behaviours that occurred through email could not be assessed, thereby posing a threat to the comparability of reported behaviours during text-based messages and photo/video messages, and a possible distortion of true sexting behaviours. However, previous examination of methods of sexting in young adults suggests that 50% of young adults in committed relationships report using text messaging as their primary method of sexting, with only 5% of young adults reporting that they have sexted through email (Drouin et al., 2013). Items related to photos/videos examined all forms of electronic means in order to examine young adults use of Skype video calls and Snapchat, two methods of sexting that are utilized primarily for photo/video messages (Abraham, 2015).

All questions related to sexting behaviours are analyzed separately, therefore, no score was created with the current measure. Composite means were created for both sent/received photos or videos in order to examine overall reports of sexting behaviours related to visual media. This value was not included in the analyses, but provides a deeper understanding of sexting behaviours among young adults.

### **3.3.5 Sexting Goals Measure**

The current measure was modified version of the Sexual Goals Measure (Impett, Gordon, & Strachman, 2008). Participants were asked whether they have sent a sext. If participants reported yes, 10-items appeared, each of which represented a motivation for sending the sext. All questions were rated on a seven-point scale, ranging from 1 = *not at all important* to 7 = *extremely important*. Five questions contain pleasure motives to send a sext (e.g., “To feel good about myself”), while the remaining five include conflict avoidance motives (e.g., “To avoid

conflict in my relationship”). For the current study, the first five items were categorized as Enhancement Goals, while the last five items were categorized as Management Goals. Both subscales are scored from 5 to 35, where 5 indicated low endorsement for that category and 35 indicated high endorsement for that category. Cronbach’s  $\alpha$  values for Enhancement Goals was .76 and for Management Goals was .92.

### **3.3.6 Attitudes Towards Sexting**

The sexting attitudes survey (Weisskirch & Delevi, 2011) is a 19-item survey designed to assess attitudes and beliefs about sexting. All items were rated on a seven-point scale, with 1 = *frequently true* to 7 = *not at all true*. Examples of items are “Sexting is just a part of flirting” and “I share the sexts I receive with my friends.” An exploratory factor analysis conducted by Weisskirch and Delevi (2011) indicated that the items loaded onto three factors, fun and carefree (7-items), perceived risk (7-items), and relational expectations (5-items). Prior to analysis, all items were reversed, where the higher the score for each sub-scale, the stronger the endorsement of that attitude toward sexting. For each of the subscales, past research found the Cronhach's  $\alpha$  estimates for reliability to be high: .89 (fun and carefree), .82 (perceived risk), and .78 (relational expectations; Weisskirch & Delevi, 2011). The current study’s Cronbach’s  $\alpha$  values for the subscales were as follows: .82 (fun and carefree), .77 (perceived risk), and .57 (relational expectations).

The low Cronbach’s  $\alpha$  value for relational expectations may be a result of the limited number of questions within the sub-scale as well as the lack of focus regarding examined relationships. The relational expectations sub-scale examines individuals’ perceptions of expectations from romantic and non-romantic partners. Therefore, items may not correlate because of a potential lack of similarity between the two relationships. If items were to be excluded, the sub-scale would not include enough items. Thus, the sub-scale is not included within analyses that predict relationship or sexual satisfaction. This decision is not a concern because many of the questions within the relational expectations sub-scale assess relationships outside of a dyadic romantic couple and is not related to the current study’s area of interest. A composite score of all items was created to determine participants’ global attitude toward sexting. A Cronhach's  $\alpha$  estimate for reliability of .67 was found for global attitude toward sexting.

### 3.3.7 Attachment

The *Experiences in Close Relationships Revised* measure (ECR-R; Fraley, Waller, & Brennan, 2000) is a 36-item, two-factor scale that assesses individuals' anxiety and avoidance dimensions in romantic relationships. Items were answered on a seven-point scale, with 1 = *strongly disagree* to 7 = *strongly agree*. Examples of items include "I often worry that my partner doesn't really love me" and "It helps to turn to my romantic partner in times of need." The ECR-R was chosen to examine attachment in the current target sample because it is the most frequently used and deemed the most valid self-report measures of adult romantic attachment (Sibley, Fischer, & Liu, 2005). High scores on either dimension equates to high anxiety/avoidance, dependent on the dimension examined (and vice versa). High internal consistency reliability values have been found for both dimensions, with a Cronbach's  $\alpha$  value of .94 for the avoidance dimension and .95 for the anxiety dimension (Sibley & Liu, 2004). For the current study, the Cronbach's  $\alpha$  values were .90 for the avoidance dimension and .75 for the anxiety dimension.

## CHAPTER 4

### RESULTS

The results of the current study are examined within two sections. The first section includes a descriptive overview of the main study variables. The descriptive statistics for each variable as evident within the entire sample are presented, as well as delineated for women and men. Gender differences were examined via exploratory analyses for the main variables. As gender differences were, for the most part, not a focus of the present study, the results of these analyses are presented in the summary tables, but not elaborated upon in the text except where relevant to the hypotheses. The second section specifically reports on the statistical testing of the hypothesis.

#### **4.1 Descriptive Summary of the Study Variables**

Although experts argue that non-parametric assessments should be used in place of parametric tests for rating scale data analyses, with some leniency given to acknowledge that examination of the median may be conducted if parametric tests are necessary (Jamieson, 2004), the current study examined means and standard deviations of rating scale items. The first issue for many researchers is the inability to meet the assumption of normality. Recent literature suggests that parametric tests are more robust than nonparametric tests, even when assumptions such as normal distribution of data or skewness are not met (Norman, 2010). It is even suggested that parametric tests are robust enough to provide unbiased results during rating scale data analyses (Norman, 2010; Jamieson, 2004). The second issue is whether equal intervals exist between each category along a rating scale (Jamieson, 2004). It is believed that means and standard deviations cannot be examined for ordinal scales due to the lack of interval consistency. However, one argument within statistical methods literature suggests that means and standard deviations can be examined, as long as the researcher is examining the descriptions of participants' behaviour, for example, their behaviour of reporting sexting frequency (Knapp, 1990). More specifically, it is appropriate to create means for ordinal data, but it is not

appropriate to compare these means or make specific statements with the means (Knapp, 1990; Marcus-Roberts & Roberts, 1987; Suppes, 1959).

What is essential to consider when examining the following analyses is the use of parametric tests for analysis of scales, rather than specific items. Although means and standard deviations are presented for specific items, only scale or created sub-scale means will be examined in-depth. This practice is recommended specifically because rating scales, which consist of the sum of multiple items within a scale, are interval and, therefore, appropriate for parametric tests (Norman, 2010). Although each item is originally ordinal, the summation of the items creates scores that are now interval (Norman, 2010).

However, one item, sent a sexual text message, is used as a predictor variable (sexting frequency). This item alone is used as an indicator of sexting frequency because I am specifically examining sexting as a form of sexual self-disclosure, which would primarily occur through voice or text speech. In addition, text message sexting is the more common version of sexting (Weisskirch & Delevi, 2011). Though this item is not a scale or sub-scale score, I am examining the descriptions of participants' sexting behaviour (i.e., providing the mean for participants' reports of sexting frequency), and not comparing the means between items and/or making specific statements with the item's mean.

#### **4.1.1 Sexting Activity**

##### **4.1.1.1 Sexting behaviours**

Sexting behaviours were assessed by two methods, yes/no questions, which provided the percentage of individuals who report taking part in the behaviour, and 5-point scale style questions (1 = *never*, 2 = *rarely*, 3 = *sometimes (e.g., monthly)*, 4 = *very often (e.g. weekly)*, and 5 = *frequently (e.g., daily)*), which provided how often participants' have taken part in each behaviour. When asked about their sext sending behaviours, the majority of participants reported that they had either sent or received a sext (68%; see Table 4-1), with 64% of individuals who have sent or received a sext reporting that they have sexted in the last six months. The slightly more than half of participants reported that they had sent a nude or semi-nude photo/video to their current romantic partner (54.1%), with participants reporting that they sent a nude or semi-nude photo/video to their current romantic partner almost monthly ( $M = 2.73$ ,  $SD = .79$ ). Greater than half of responding participants reported that they had sent a sexually suggestive text message to their current romantic partner (64.6%). An examination of the mean for participants'



reports sending a sexually suggestive text message to their romantic partner found that, on average, participants sent such sexts almost weekly ( $M = 3.60, SD = .83$ ). Nearly half of participants reported that they had received a nude or semi-nude photo/video from their current romantic partner (49.7%). When examining participants' reports of the frequency with which they received nude or semi-nude photo/video from their current romantic partner, the average report of receiving such sexts was found to be "monthly" ( $M = 2.72, SD = .84$ ). Lastly, the majority of participants reported that they had received a sexually suggestive text message from their current romantic partner (64.9%). An examination of participants' reports of received sexually suggestive text messages from their romantic partner revealed that participants received such sexts almost weekly ( $M = 3.60, SD = .87$ ).

#### **4.1.1.2 Sexting goals measure**

Motivations for sexting was assessed by two sub-variables, enhancement goals and management goals, created for the current study. Participants exhibited relatively high scores of relationship enhancement goals for sexting ( $M = 26.64, SD = 5.75$ ; see Table 4-2). In contrast, relationship management goals for sexting were found to be low ( $M = 12.02, SD = 8.35$ ).

#### **4.1.1.3 Attitudes toward sexting**

Participants' attitudes toward sexting were assessed by three sub-variables: fun and carefree, perceived risk, and relational expectation. A global attitude toward sexting was created for the current study. Participants' global attitude toward sexting was low to moderate ( $M = 63.70, SD = 8.53$ ; see Table 4-3). Within each subscale, participants reported sexting as moderately fun and carefree ( $M = 33.29, SD = 5.73$ ), perceived sexting as a high risk sexual activity ( $M = 42.22, SD = 4.09$ ), and perceived a low to moderate relational expectation to sext with their current romantic partner ( $M = 23.15, SD = 4.39$ ). These findings suggest that participants do not have extreme attitudes toward sexting.

#### **4.1.1.4 Rewards/costs of sexting**

Participants' perceived costs and rewards of sexting were collected by two measures. For the first measure, participants were asked to report their global level of perceived rewards and perceived costs of sexting with their current romantic partner. In general, participants perceived high levels of rewards for sexting with their current romantic partner ( $M = 6.63, SD = 1.93$ ; see Table 4-4), and low levels of costs for sexting with their current romantic partner ( $M = 2.53, SD = 1.77$ ). Participants' balance of exchanges was found to be more rewarding than costly ( $M =$

4.09,  $SD = 2.95$ ). A similar pattern was found for the second measure of perceived rewards and costs of sexting. Participants were asked to categorize sexting outcomes as rewards, costs, both rewards/costs, or neither rewards/costs. Participants classified a high number of these outcomes of sexting as rewards ( $M = 28.10$ ,  $SD = 9.10$ ), while categorizing a low number as sexting costs ( $M = 11.07$ ,  $SD = 8.10$ ).

#### **4.1.1.5 Sexual self-disclosure during sexting (with face-to-face for comparison)**

Two methods of sexual self-disclosure were assessed during the current study: during face-to-face communication and during sexting. Participants reported that they self-disclosed their sexual desires a moderate amount during face-to-face communication with their partner ( $M = 4.42$ ,  $SD = 1.61$ ) (see Table 4-5). Participants also reported moderate sexual self-disclosure during sexting ( $M = 4.09$ ,  $SD = 1.67$ ).

Table 4-1  
*Sexting Behaviours*

Variable	Overall <i>N</i> = 354		Men <i>n</i> = 95		Women <i>n</i> = 259		<i>p</i>
	<i>N</i> (%)	<i>M</i> ( <i>SD</i> )	<i>N</i> (%)	<i>M</i> ( <i>SD</i> )	<i>N</i> (%)	<i>M</i> ( <i>SD</i> )	
Sent/received sext (Y/N)	247 (68.2%)		60 (63.2%)		186 (69.9%)		.120
Sent sext in last 6 months (Y/N)	231 (63.6%)		55 (57.9%)		174 (65.4%)		.790
*Sent nude/semi-nude photo/video	196 (54.1%)	2.73 (.79)	42 (44.2%)	2.78 (.76)	153 (57.5%)	2.72 (.80)	
Sent sexually suggestive text message	234 (64.6%)	3.60 (.83)	56 (58.9%)	3.64 (.75)	177 (66.5%)	3.59 (.86)	
*Received nude/semi-nude photo/video	180 (49.7%)	2.72 (.84)	50 (52.6%)	3.13 (.92)	129 (48.5%)	2.56 (.75)	
Received sexually suggestive text message	235 (64.9%)	3.60 (.87)	56 (58.9%)	3.73 (.86)	178 (66.9%)	3.56 (.88)	

*Note.* Items are rated on a 5-point scale, with 1 = *never*, 2 = *rarely*, 3 = *sometimes* (e.g., *monthly*), 4 = *very often* (e.g. *weekly*), and 5 = *frequently* (e.g., *daily*). Variables marked with an “\*” are composite scores.

Table 4-2  
*Sexting Goals*

Variable	$\alpha$ Values	Overall <i>M</i> ( <i>SD</i> ) <i>N</i> = 250	Men <i>M</i> ( <i>SD</i> ) <i>n</i> = 59	Women <i>M</i> ( <i>SD</i> ) <i>n</i> = 191	<i>p</i>
Enhancement Goals	.78	26.64 (5.75)	26.07 (5.43)	26.70 (5.76)	.449
Pursue my own sexual pleasure		5.03 (1.58)	5.10 (1.49)	5.03 (1.59)	
Please my own partner		5.88 (1.27)	5.70 (1.44)	5.93 (1.21)	
Feel good about myself		4.46 (1.84)	4.20 (1.89)	4.54 (1.82)	
Enhance intimacy in my relationship		5.47 (1.84)	5.50 (1.51)	5.45 (1.67)	
Express love for my partner		5.74 (1.55)	5.57 (1.64)	5.79 (1.52)	
Management Goals	.92	12.02 (8.35)	14.88 (8.81)	11.31 (8.18)	.004
Avoid conflict in my relationship		2.77 (2.08)	3.47 (2.14)	2.56 (2.02)	
Prevent my partner from being upset		2.54 (2.06)	3.30 (2.17)	2.31 (1.98)	
Prevent my partner from getting angry at me		2.01 (1.91)	2.95 (2.09)	1.98 (1.80)	
Prevent my partner from losing interest in me		2.66 (2.03)	2.95 (2.10)	2.58 (2.01)	
I felt obligated to engage in sexting		1.98 (1.63)	2.27 (1.76)	1.88 (1.58)	

*Note.* Items rated on a 7-point scale, with 1 = *not at all important* to 7 = *extremely important*. A high score indicates high motivation to sext related to the particular goal (minimum score of 7, maximum score of 35).

Table 4-3  
*Attitudes Toward Sexting*

Variable	$\alpha$ Values	Overall <i>M (SD)</i> <i>N = 361</i>	Men <i>M (SD)</i> <i>n = 94</i>	Women <i>M (SD)</i> <i>n = 266</i>	p
Global	.67	63.70 (8.53)	62.77 (9.43)	63.97 (8.12)	.238
Fun and Carefree	.82	33.29 (5.73)	32.18 (5.52)	33.75 (5.66)	.021
Perceived Risk	.77	42.22 (4.09)	41.36 (4.57)	42.56 (3.84)	.014
Relational Expectation	.57	23.15 (4.39)	23.28 (4.48)	23.13 (4.34)	.783

*Note.* Only those reporting engaging in sexting are included in the analysis of means (SDs). All items were rated on a 7-point scale items reversed in current study), with 1 = *not at all true* to 7 = *frequently true*. A low score on any of the three variables (minimum of 7 for fun and carefree/perceived risk; minimum of 5 for relational expectation) indicates low agreement with that attitude variable and a high score (maximum of 49 for fun and carefree/perceived risk; maximum of 35 for relational expectation) indicates high agreement with that attitude variable. In terms of global attitudes toward sexting, low score indicates negative attitudes toward sexting and a high score indicates positive attitudes toward sexting (minimum score of 19, maximum score of 133).

Table 4-4  
*Sexual Exchange Face-to-Face and Sexting*

Variable	Overall <i>M (SD)</i> <i>N = 361</i>	Men <i>M (SD)</i> <i>n = 95</i>	Woman <i>M (SD)</i> <i>n = 266</i>	p
a. Level of Rewards/Costs – Sexual Relationship				
Balance of Sexual Exchange	3.78 (2.96)	3.39 (3.23)	3.94 (2.85)	.067
Rewarding	6.90 (1.80)	6.74 (1.90)	6.95 (1.76)	.311
Costly	3.12 (2.01)	3.35 (2.28)	3.02 (1.88)	.163
b. Level of Rewards/Costs – Sexting				
Balance of Sexual Exchange	4.09 (2.94)	3.95 (2.88)	4.12 (2.97)	.711
Rewarding	6.63 (1.93)	6.70 (1.74)	6.59 (1.99)	.708
Costly	2.53 (1.77)	2.75 (1.92)	2.46 (1.72)	.266
c. Rewards/Costs Checklist				
Rewards	28.10 (9.10)	28.17 (8.23)	28.01 (9.39)	.908
Costs	11.07 (8.10)	13.58 (8.57)	10.25 (7.83)	.006

*Note.* Items a and b are scored on an 8-point bipolar scale, with 1 = *not at all rewarding/costly* to 8 = *extremely rewarding/costly*. A high score represents perceptions of sexual relationship/sexting as highly rewarding/costly, while a low score represents perceptions of sexual relationship/sexting as not rewarding/costly.

Item c included 46 items. A high score represents a high number of perceived rewards/costs associated with sexting, while a low score represents a low number of perceived rewards/costs associated with sexting.

Table 4-5

*Sexual Self-Disclosure, Face-to-Face and During Sexting*

Variable	Overall <i>M (SD)</i> <i>N = 361</i>	Men <i>M (SD)</i> <i>n = 95</i>	Women <i>M (SD)</i> <i>n = 266</i>
<i>Face-to-Face</i>	4.42 (1.61)	4.03 (1.62)	4.56 (1.59)
Like to be kissed	3.85 (2.18)	3.47(2.14)	3.98 (2.18)
Don't like to be kissed	5.19 (1.67)	5.00 (1.64)	5.26 (1.67)
Like to be touched	4.40 (2.09)	3.80 (2.06)	4.60 (2.06)
Don't like to be touched	5.17 (1.78)	4.87 (1.81)	5.27 (1.76)
Like to have intercourse	4.32 (2.12)	3.62 (2.10)	4.56 (2.07)
Don't like to have intercourse	4.70 (2.05)	4.66 (2.15)	4.71 (2.02)
Like to receive oral sex	3.82 (2.25)	3.42 (2.27)	3.95 (2.22)
Don't like to receive oral sex	4.81 (2.10)	4.45 (2.21)	4.93 (2.04)
Like to give oral sex	4.20 (2.26)	3.67 (2.26)	4.38 (2.23)
Don't like to give oral sex	4.83 (1.90)	4.52 (1.96)	4.93 (1.87)
Like the amount of variety in sex life	3.90 (2.10)	3.42 (2.02)	4.05 (2.10)
Don't like the amount of variety in sex life	3.90 (2.10)	3.42 (2.02)	4.05 (2.10)
<i>Sexting</i>	4.09 (1.67)	4.00 (1.55)	4.11 (1.71)
Like to be kissed	4.50 (2.16)	4.33 (2.04)	4.58 (2.19)
Don't like to be kissed	3.15 (2.26)	2.97 (2.07)	3.22 (2.31)
Like to be touched	5.29 (1.75)	5.27 (1.77)	5.28 (1.74)
Don't like to be touched	3.30 (2.29)	2.98 (2.07)	3.38 (2.35)
Like to have intercourse	5.29 (1.84)	5.20 (1.74)	5.31 (1.87)
Don't like to have intercourse	3.23 (2.26)	2.88 (2.08)	3.31 (2.29)
Like to receive oral sex	4.89 (2.13)	5.00 (2.12)	4.84 (2.14)
Don't like to receive oral sex	3.13 (2.30)	2.90 (2.22)	3.19 (2.32)
Like to give oral sex	5.03 (2.04)	4.92 (2.06)	5.06 (2.04)
Don't like to give oral sex	3.26 (2.34)	3.53 (2.41)	3.17 (2.32)
Like the amount of variety in sex life	4.84 (2.06)	4.82 (1.89)	4.84 (2.11)
Don't like the amount of variety in sex life	3.21 (2.22)	3.17 (2.12)	3.20 (2.25)

*Note.* Items scored on a seven-point scale, with 1 = *nothing at all* to 7 = *everything*. High scores represent higher perceived sexual self-disclosure, while a low scores represent low perceived sexual self-disclosure.

## 4.1.2 Relationship Variables

### 4.1.2.1 Attachment

The ECR scale assessed two dimensions of attachment (see Table 4-6). Examination of the ECR avoidance dimension revealed that participants reported slightly low scores (i.e., a score of 4.5 or lower) on the avoidance dimension of relationship attachment ( $M = 4.39$ ,  $SD = .247$ ). Examination of the anxiety dimension revealed that participants reported low scores on the anxiety dimension of relationship attachment ( $M = 3.01$ ,  $SD = .537$ ).

Table 4-6  
*Experiences with Close Relationships*

Variable	$\alpha$ Values	Overall $M$ ( $SD$ ) $N = 360$	Men $M$ ( $SD$ ) $n = 94$	Women $M$ ( $SD$ ) $n = 266$	p
Avoidance	.485	4.39 (.247)	4.38 (.230)	4.39 (.253)	.650
Anxiety	.718	3.01 (.537)	3.02 (.530)	3.01 (.541)	.893

*Note.* All items were rated on a 7-point scale (items reversed in current study), with 1 = *not at all true* to 7 = *frequently true*.

### 4.1.2.2 Relationship and sexual satisfaction

Participants were asked to report their perceived sexual and relationship satisfaction with their current romantic partner. When examining reports of sexual satisfaction, participants reported that they were extremely sexually satisfied in their current romantic relationship ( $M = 28.97$ ,  $SD = 5.38$ ; see Table 4-7). Similarly, participants also reported that they were extremely satisfied with their romantic relationship with their current romantic partner ( $M = 29.77$ ,  $SD = 5.69$ ).

### 4.1.2.3 Rewards/costs of sexting within current relationship

Participants were asked to report their current level of perceived costs/rewards with their current romantic sexual relationship. An examination of participants' reports of their level of relationship rewards indicated that participants perceived their current relationship was moderately rewarding ( $M = 6.90$ ,  $SD = 1.80$ ; see Table 4-4). Participants also reported that their relationship was moderately "not costly" ( $M = 3.12$ ,  $SD = 2.01$ ). Participants' balance of exchanges was found to be more rewarding than costly ( $M = 3.78$ ,  $SD = 2.96$ ).

#### **4.1.2.4 Sexual self-esteem**

Sexual self-esteem was examined by assessing five aspects of sexual self-esteem and summing the five aspects to create an overall score of sexual self-esteem. Participants reported moderate overall sexual self-esteem ( $M = 352.89$ ,  $SD = 59.19$ ; see Table 4-7).



Table 4-7

*Descriptive Statistics for Sexual Satisfaction, Relationship Satisfaction, and Sexual Self-Esteem*

Variable	$\alpha$ Values	Overall <i>M (SD)</i> <i>N = 361</i>	Men <i>M (SD)</i> <i>n = 95</i>	Woman <i>M (SD)</i> <i>n = 266</i>	p
a. Sexual Satisfaction	.92	28.97 (5.38)	28.28 (5.67)	29.19 (5.26)	.158
Bad/Good		5.70 (1.22)	5.60 (1.31)	5.73 (1.18)	
Unpleasant/Pleasant		5.90 (1.20)	5.71 (1.34)	5.96 (1.14)	
Negative/Positive		5.94 (1.20)	5.77 (1.33)	6.00 (1.15)	
Unsatisfying/Satisfying		5.62 (1.28)	5.56 (1.37)	5.64 (1.25)	
Worthless/Valuable		5.92 (1.25)	5.72 (1.26)	5.99 (1.24)	
Relationship satisfaction	.95	29.77 (5.69)	28.87 (5.67)	30.07 (5.65)	.078
Bad/Good		5.97 (1.21)	5.83 (1.23)	6.02 (1.21)	
Unpleasant/Pleasant		5.96 (1.24)	5.68 (1.32)	6.05 (1.19)	
Negative/Positive		5.85 (1.26)	5.68 (1.25)	5.91 (1.26)	
Unsatisfying/Satisfying		5.89 (1.29)	5.80 (1.35)	5.91 (1.26)	
Worthless/Valuable		6.17 (1.24)	5.87 (1.25)	6.27 (1.22)	
b. Overall Sexual Self-Esteem	.87	352.89 (59.19)	350.01 (60.01)	353.60 (58.86)	.612
Skill and Experience	.94	78.99 (16.35)	77.62 (16.48)	79.39 (15.27)	.366
Attractiveness	.92	62.75 (16.46)	68.02 (17.06)	60.76 (15.75)	.000
Control	.88	72.83 (13.08)	71.80 (13.40)	73.14 (12.93)	.392
Moral Judgment	.89	69.96 (13.28)	65.00 (13.11)	70.81 (13.30)	.041
Adaptiveness	.91	68.33 (13.42)	67.57 (13.06)	70.81 (13.30)	.005

*Note.* a. Items scored on a 7-point bipolar scales: good-bad; pleasant-unpleasant; positive-negative; satisfying-unsatisfying; and valuable-worthless (1 = negative perceptions 7 = positive perceptions). Scores ranged from 5 to 35, with 35 indicating high satisfaction.

b. Items are rated on a 6-point Likert-style scale, with 1 = *strongly disagree* and 6 = *strongly agree*. Each individual item on the subscale is summed to create an overall subscale score. Scores ranged from 81 to 486, with 486 indicating high sexual self-esteem.

## 4.2 Hypothesis Testing

The current study examines gender differences using independent sample t-tests and ANOVAs. Unequal sample sizes, as evidenced in the current study, may be a concern during such analyses because it can inflate Type 1 error, resulting in false significant differences between groups. Independent sample t-tests are not influenced by unequal sample sizes; however, results from ANOVAs can be inflated (Tabachnick & Fidell, 2013). This inflation can occur if the variance of the smaller sample (e.g., men) is larger than the variance of the larger sample (e.g., women; Tabachnick & Fidell, 2013). However, Type 1 error is not a major concern within the current study because limited gender differences were found, while those that were significant occurred within results where the variance was found to be lower for men (smaller sample) than the variance for women. This means that Type 1 error was not likely to be an issue (Tabachnick & Fidell, 2013). However, caution should always be taken when examining results from unequal sample sizes.

### 4.2.1 Attitudes Toward Sexting

#### a) Men will view sexting as more rewarding, while women will view sexting as more costly

Due to the high number of statistical analyses comparing men and women, the current study will use a Bonferroni adjusted p-value of .01 to examine whether significance is found within the t-test analyses. This value was determined by the number by dividing .05 by the number (five) of statistical analyses conducted.

In order to examine the current hypothesis, participants' perceptions of the level of rewards and costs while sexting with their current romantic partner were examined. No gender differences were found for the global ratings of either perceived level of rewards,  $t(247) = -.375$ ,  $p = .708$ , or perceived level of costs,  $t(250) = -1.116$ ,  $p = .266$ .

A paired samples t-test was used to examine the rewards and costs checklist. The findings suggested that participants perceived that there are significantly more rewards ( $M = 28.10$ ,  $SD = 9.10$ ) than costs ( $M = 11.07$ ,  $SD = 8.10$ ) when sexting with their current romantic partner (see Table 4-4),  $t(234) = 20.071$ ,  $p < .001$ ,  $d = 1.98$ . Independent samples t-tests were conducted to determine gender differences in the number of perceived rewards and costs associated with sexting. No gender differences were found for reports of perceived rewards of sexting,  $t(249) = -.116$ ,  $p = .908$ . However, men ( $M = 13.58$ ,  $SD = 8.57$ ) reported significantly more perceived costs

of sexting than women ( $M = 10.25$ ,  $SD = 7.83$ ),  $t(234) = -2.756$ ,  $p = .006$ ,  $d = .449$ . Therefore, not only was hypothesis 1.a not supported, but also the findings contradicted the prediction.

**b) Women will report more negative attitudes toward sexting than men**

In order to test the current hypothesis, a MANOVA was conducted with the three sexting attitude sub-variables (fun and carefree, perceived risk, and relational expectation), as dependent variables and gender as the independent variable. Due to the unequal sample sizes and non-significant Box's M, Wilks' Lambda was assessed. Overall, there was an association between gender and sexting attitudes,  $\Lambda = .977$ ,  $F(3, 356) = 2.794$ ,  $p = .040$ ,  $\eta_p^2 = .023$ .

Univariate analyses were conducted to fully interpret the significant main effect for gender evident in the MANOVA. Significant gender differences were found for the subscales fun and carefree,  $F(1, 358) = 5.399$ ,  $p = .021$ ,  $\eta_p^2 = .015$ , and perceived risks,  $F(1, 358) = 6.104$ ,  $p = .014$ ,  $\eta_p^2 = .017$ . From an examination of gender means for both sub-scales, these results would indicate that women perceived sexting as more fun and carefree ( $M = 33.75$ ,  $SD = 5.66$ ), but also more risky ( $M = 42.56$ ,  $SD = 3.84$ ), than men (fun and carefree,  $M = 32.18$ ,  $SD = 5.52$ ; perceived risk,  $M = 41.36$ ,  $SD = 4.57$ ). No association was found between gender and relational expectations to sext,  $F(1, 358) = .076$ ,  $p = .783$ .

**c) Women's motivations to sext will be more oriented to relationship management while men's motivations to sext will be more oriented to relationship enhancement**

A mixed measure ANOVA was conducted to test whether gender differences could be found between the motivations to sext. More specifically, a 2 (gender) X 2 (motivation) ANOVA was conducted to allow for an examination of gender differences. The analysis determined that there was a significant main effect for motivation type,  $F(1, 250) = 381.11$ ,  $p < .001$ ,  $\eta_p^2 = .604$ . There was no significant effect for gender,  $F(1,251) = 3.30$ ,  $p = .070$ . However there was a significant interaction between gender and motivation to sext,  $F(1, 250) = 9.613$ ,  $p = .002$ ,  $\eta_p^2 = .037$ . Specifically, men ( $M = 14.88$ ,  $SD = 8.81$ ) reported significantly higher levels of relationship management as a motivation for sexting than did women ( $M = 11.31$ ,  $SD = 8.18$ ),  $t(250) = -2.903$ ,  $p = .004$ , but the genders did not report differences in relationship enhancement as motivation for sexting,  $t(251) = .759$ ,  $p = .449$ .

**d) Positive attitudes towards sexting will predict more engagement in sexting activity**

I hypothesized that attitudes towards sexting will be a significant predictor of the frequency of sexting in the past six months. The more global construct of attitudes was operationalized in a number of ways within the current study. Specifically, participants provided indices of their basic attitudes towards sexting, the levels of costs and rewards they associated with sexting, and their motivations or goals with respect to sexting. Prior to conducting a regression analysis to examine this hypothesis, Pearson's  $r$  correlations among the relevant attitudinal variables and the outcome variable of interest (sexting frequency) were calculated prior in order to determine whether the potential predictor variables were correlated with sexting frequency. As seen in Table 4-8, a number of the potential predictor variables did not evidence significant zero-order correlations with sexting frequency. Specifically, relationship management goals, perceived risks of sexting, relational expectations regarding sexting, and level of rewards associated with sexting were not correlated with sexting frequency and thus were not included in the subsequent regression model. Additionally, participant gender, which was included as a potential control variable, was not significantly correlated with sexting frequency, so it was also not included in the regression model. The following attitudinally-related variables were significantly correlated with the criterion variable of sexting frequency and were included in the model: relationship enhancement goals, perceptions of sexting as fun/carefree, risky, and rewards associated with sexting.

Table 4-9 provides a summary of the linear regression results for sexting frequency. A linear regression is a statistical technique that assesses the association between a dependent variable and multiple independent variables (Tabachnick & Fidell, 2013). More specifically, it examines the amount of variance of a dependent variable accounted for by the independent variables by fitting a model to the observed data (i.e., creating a linear equation; Tabachnick & Fidell, 2013). The best-fitting coefficients produce a linear equation where the squared differences between the predicted value (based on the predictive equation) and the actual values are at a minimum, a solution that is called a least squared solution. The proportion of variance in the dependent variable ( $R^2$ ) is predicted by the linear combination of the independent variables, a value that partitions out the variance accounted for by the independent variables. This value is calculated by dividing the sum of squares for the regression (the sum of the predicted value

minus the mean squared) by the sum of squares for the dependent variable (the sum of the dependent variable minus the mean squared).

With all predictor variables (relationship enhancement goals, fun/carefree, perceived risk, and rewards) entered in the equation on one step,  $R^2 = .222$ ,  $F(4, 226) = 16.118$ ,  $p < .001$ . Therefore, the current model accounted for approximately 22% of the variance in sexting frequency scores. Within this model, only perceptions of sexting as fun/carefree ( $p = .001$ ) and perceived sexting rewards ( $p < .001$ ) emerged as significant predictors of sexting frequency, accounting for 3.8% and 4.7% of the unique variance, respectively. To summarize, those who perceived sexting as more fun/carefree and those who associated more rewards with sexting reported more frequent sexting activity within the last 6 months. Thus, this hypothesis was supported in that viewing sexting as fun/carefree and rewarding were the most significant predictors of sexting frequency.

Table 4-8  
*Correlations Among Sexting Frequency and Predictor Variables*

Variable	SF
Sexting Frequency (SF)	-
Gender (G)	-.032
Enhancement Goals (E)	.318**
Management Goals (M)	.090
Fun and Carefree (F)	.322**
Perceived Risk (PR)	.237**
Sexting Costs (SC)	-.070
Sexting Rewards (SR)	.339**

Note. \*\* $p < .01$ .

Table 4-9  
*Linear Regression: Predictors of Sexting Frequency*

	$R^2$	$R^2_{\text{adjusted}}$	$B$	$\beta$	$sr^2$
Predictor Variables	.222	.208			
Enhancement Goals			.013	.090	<i>ns</i>
Fun and Carefree			.040**	.228	.038
Perceived Risk			.022	.099	<i>ns</i>
Sexting Reward			.023**	.247	.047

Note. \*\* $p < .001$ .

#### 4.2.2 Sexting and Sexual Self-Disclosure

##### **a) Individuals will report more sexual self-disclosure during sexting than face-to-face**

A 2 (gender) X 2 (communication method) mixed measures ANOVA was conducted to test whether individuals reported more sexual self-disclosure during sexting or during face-to-face communication, and whether gender was a moderating factor. This analysis revealed a significant main effect for communication method,  $F(1, 251) = 12.974, p < .001, \eta_p^2 = .049$ , a significant main effect for gender,  $F(1,251) = 4.706, p = .031, \eta_p^2 = .018$ , and a significant interaction term between gender and method of sexual self-disclosure,  $F(1, 251) = 6.609, p = .011, \eta_p^2 = .026$ . Specifically, women ( $M = 4.56, SD = 1.59$ ) reported significantly higher levels of sexual self-disclosure face-to-face than did men ( $M = 4.03, SD = 1.62$ ),  $t(359) = 2.760, p = .006$ , but the genders did not report differences in sexual self-disclosure during sexting,  $t(251) = .471, p = .638$ .

##### **b) Sexting frequency, sexual self-esteem, and the balance of rewards and costs associated with sexting will predict levels of sexual-disclosure during sexting**

A second linear regression was conducted to examine variables that may predict the level of sexual self-disclosure during sexting. Although the hypothesis specifies sexting frequency and sexual self-esteem as the main predictor variables, I wanted to examine their predictive ability after controlling for gender and other salient relationship variables, including sexual self-disclosure with partner in face-to-face interactions, the adult attachment variables of avoidance and anxiety, and the perceived rewards minus costs associated with sexting. The Pearson's  $r$  correlations (see Table 4-10) revealed that only face-to-face sexual self-disclosure, sexting frequency, and the perceived rewards minus costs associated with sexting were significantly correlated with sexual self-disclosure during sexting, and thus only these three variables were entered into the regression equation.

Table 4-11 provides a summary of the linear regression results for sexual self-disclosure during sexting. With the three variables entered in the equation,  $R^2 = .272, F(3, 227) = 28.228, p < .001$ . Approximately 27% of the variance in sexual self-disclosure during sexting scores was accounted for by the three predictor variables. All predictor variables emerged as significant predictors of sexual self-disclosure during sexting; face-to-face sexual self-disclosure ( $p < .001$ ) accounting for 17.7% of the unique variance, sexting frequency ( $p < .001$ ) accounting for 2.5%,

and perceived rewards minus costs associated with sexting ( $p = .025$ ) accounting for 1.6%. Those who sexually self-disclosed more to their partner in face-to-face communication tended to disclose more while sexting. As well, those who sexted more frequently and perceived sexting as more rewarding than costly tended to disclose more. Thus, sexting frequency and perceived rewards minus costs associated with sexting were significant predictors of sexual self-disclosure.

Table 4-10  
*Correlations Among Sexual Self-Disclosure During Sexting and Predictor Variables*

Variable	SDS
Self-Disclosure Sexting (SDS)	-
Gender (G)	-.030
Sexting Frequency (SF)	.208**
Self-Disclosure F-F (SDF)	.459**
Sexual Self-Esteem (SE)	.120
Relationship Avoidance (AV)	.025
Relationship Anxiety (AN)	-.113
Perceived rewards minus costs (PRC)	.301**

Note. \*\* $p < .01$ .

Table 4-11  
*Linear Regression: Predictors of Sexual Self-Disclosure During Sexting*

	$R^2$	$R^2_{\text{adjusted}}$	$B$	$\beta$	$sr^2$
Predictor Variables	.272	.262			
Self-Disclosure F-F			.498*	.431	.177
Sexting Frequency			.338*	.167	.025
Perceived rewards minus costs			.084*	.137	.016

Note. \* $p < .05$ .

### 4.2.3 Relationship and Sexual Satisfaction

#### a) Sexual self-disclosure during sexting will be associated with relationship satisfaction

A linear regression was conducted to examine variables that may predict the relationship satisfaction. Although the hypothesis specifies sexual self-disclosure during sexting as the main predictor variable, I also wanted to examine its predictive ability after controlling for gender, sexual self-esteem, sexting frequency, sexting motivations (enhancement and management goals), global attitudes of sexting, and the adult attachment variables of avoidance and anxiety. The Pearson's  $r$  correlations (see Table 4-12) revealed that participant gender, which was included as a potential control variable, was not significantly correlated with relationship

satisfaction, and it was, therefore, excluded from the regression model. The following predictor variables were significantly correlated with the criterion variable of relationship satisfaction and were included in the model: sexual self-disclosure during sexting, sexual self-esteem, avoidance attachment, anxiety attachment, relationship enhancement goals, relationship management goals, and global sexting attitudes.

Table 4-13 provides a summary of the linear regression results for relationship satisfaction. With all predictor variables (sexual self-disclosure during sexting, sexual self-esteem, avoidance attachment, anxiety attachment, relationship enhancement goals, relationship management goals, and global sexting attitudes) entered in the equation on one step,  $R^2 = .226$ ,  $F(7, 244) = 10.161$ ,  $p < .001$ . Therefore, approximately 23% of the variance in relationship satisfaction scores was accounted for by the current model. Within this model, only reports of anxiety attachment emerged as a significant unique predictor of relationship satisfaction ( $p < .001$ ), accounting for 9.7% of the unique variance. Engaging in sexting as a means of relationship enhancement did not emerge as a significant predictor of sexting frequency. To summarize, those who report high anxious attachment with their current romantic partner perceived their current romantic relationship as unsatisfying. Sexual self-disclosure during sexting was not found to be a significant predictor of relationship satisfaction, thus, this hypotheses was not supported.

Table 4-12  
*Correlations Among Relationship Satisfaction and Predictor Variables*

Variable	RS
Relationship Satisfaction (RS)	-
Gender (G)	-.093
Self-Disclosure Sexting (SDS)	.148*
Sexual Self-Esteem (SE)	.412**
Sexting Frequency (SF)	.766
Relationship Anxiety (AN)	-.429**
Relationship Avoidance (AV)	.146**
Enhancement Goals (E)	.145*
Management Goals (M)	-.201**
Global Attitudes (SGA)	-.166**

Note. \* $p < .05$ . \*\* $p < .01$ .



Table 4-13

*Linear Regression: Predictors of Relationship Satisfaction*

Predictor Variables	$R^2$	$R^2_{\text{adjusted}}$	$B$	$\beta$	$sr^2$
Predictor Variables	.226	.203			
Self-Disclosure - Sexting			.225	.082	<i>ns</i>
Sexual Self-Esteem			.012	.133	<i>ns</i>
Relationship Anxiety			-.183*	-.318	.097
Relationship Avoidance			-.003	-.003	<i>ns</i>
Relationship Enhancement			.093	.101	<i>ns</i>
Relationship Management			-.055	-.090	<i>ns</i>
Global Sexting Attitudes			.026	.040	<i>ns</i>

Note. \* $p < .05$ .

**b) Sexual self-disclosure during sexting will be associated with sexual satisfaction**

A linear regression was conducted to examine variables that may predict sexual satisfaction. In addition to examining the current hypothesis that sexual self-disclosure during sexting is a main predictor variable of sexual satisfaction, while controlling for gender, I also sought to examine sexual self-esteem, sexting frequency, sexting motivations (enhancement and management goals), global attitudes of sexting, and the adult attachment variables of avoidance and anxiety as predictors of sexual satisfaction. The Pearson's  $r$  correlations (see Table 4-14) revealed that participant gender, a potential control variable, was not significantly correlated with sexting sexual satisfaction and was excluded from the regression model. The following predictor variables were significantly correlated with, and included in the model, of relationship satisfaction: sexual self-disclosure during sexting, sexual self-esteem, sexting frequency, avoidance attachment, anxiety attachment, relationship enhancement goals, relationship management goals, and global sexting attitudes. Due to both relationship satisfaction and sexual satisfaction having the same predictor variables, this allowed for a comparison among the variables that may predict the two related, yet separate, aspects of romantic sexual satisfaction constructs.

Table 4-15 provides a summary of the linear regression results for sexual satisfaction. With all predictor variables (sexual self-disclosure during sexting, sexual self-esteem, sexting frequency, avoidance attachment, anxiety attachment, relationship enhancement goals, relationship management goals, and global sexting attitudes) entered in the equation on one step,  $R^2 = .335$ ,  $F(8, 224) = 14.094$ ,  $p < .001$ . Therefore, the current model accounted for approximately 33% of the variance in the sexual satisfaction scores. Within this model, four

variables were found to predict unique variance in sexual satisfaction: reports of sexual self-disclosure during sexting ( $p = .010$ ) accounting for 2.0% of the unique variance, sexual self-esteem ( $p < .001$ ) accounting for 7.0% of the unique variance, sexting as a means of relationship enhancement ( $p = .041$ ) accounting for 1.3% of the unique variance, and sexting as a means of relationship management ( $p = .017$ ) accounting for 1.7% of the unique variance. Engaging in sexting as a means of relationship management, avoidance attachment, and global sexting attitudes did not emerge as significant predictors of sexual satisfaction. Those who self-disclose more to their partner in during sexting, have higher sexual self-esteem, sext as a means of relationship enhancement, and sext less as a means of relationship management tend to perceive their romantic relationship as sexually satisfying. Thus, as hypothesized, sexual self-disclosure during sexting is associated with sexual satisfaction.

Table 4-14  
*Correlations Among Sexual Satisfaction and Predictor Variables*

Variable	SS
Sexual Satisfaction (SS)	-
Gender (G)	-.074
Self-Disclosure Sexting (SDS)	.225**
Sexual Self-Esteem (SE)	.566**
Sexting Frequency (SF)	.131*
Relationship Anxiety (AN)	-.386**
Relationship Avoidance (AV)	.122*
Enhancement Goals (E)	.258**
Management Goals (M)	-.228**
Global Attitudes (SGA)	-.293**

Note. \* $p < .05$ . \*\* $p < .01$ .

Table 4-15  
*Linear Regression: Predictors of Sexual Satisfaction*

Predictor Variables	$R^2$	$R^2_{\text{adjusted}}$	$B$	$\beta$	$sr^2$
Predictor Variables	.335	.311			
Self-Disclosure - Sexting			.426*	.149	.020
Sexual Self-Esteem			.031*	.361	.070
Sexting Frequency			-.005	-.001	<i>ns</i>
Relationship Anxiety			-.034	-.064	<i>ns</i>
Relationship Avoidance			-.006	-.006	<i>ns</i>
Relationship Enhancement			.107*	.126	.013
Relationship Management			-.085*	-.147	.017
Global Sexting Attitudes			-.047	-.078	<i>ns</i>

Note. \* $p < .05$ .

## CHAPTER 5 DISCUSSION

The main purpose of the current study was to apply SET to reports of sexting behaviours of young adults in ongoing relationships in order to broaden our understanding of the connection among relationship and sexual satisfaction and alternative forms of communication, as well as to understand why young adults may continue to take part in sexting activities in spite of the recognized risks. The association between young adults' sexual self-disclosure during sexting and their reports of sexual satisfaction was partially explained by SET. Although SET did assist in understanding the use of sexting as a means of communication, some unexpected results emerged. These findings, highlighted in the following discussion, demonstrate the complexity of sexual communication, specifically through sexting practices of romantic partners. A practical application and directions for future research will also be discussed.

### **5.1 Sexting and Relationship Satisfaction within Social Exchange Framework**

The current study assessed whether SET could explain the association among sexual self-disclosure during sexting and individuals' perceptions of sexual and relationship satisfaction in their current romantic relationship. Rewards and costs of sexual self-disclosure are associated with face to face sexual self-disclosure, a form of deep communication that is related to young adults' sexual satisfaction (Byers & Demmons, 1999). Examining this relationship within the context of sexting may further an understanding of the applicability of SET within sexual communication research, as well as provide additional information as to how perceptions of particular forms of communication between partners may relate to perceptions of satisfaction between partners.

In order to examine whether SET is an appropriate theory for the relationship between sexting and sexual satisfaction, the current study explored the ability of the perceived rewards minus costs of sexting to predict sexual self-disclosure. Aligning with SET, sexual self-disclosure during sexting was associated with the perceived rewards minus costs of sexting with a romantic partner. This finding lends support to the first portion of SET, in which perceiving a social exchange as more rewarding than negative will lead to increased self-disclosure. The

current finding suggests that individuals' perceptions of sexting relates to whether individuals utilize sexting as a form of sexual self-disclosure. Therefore, individuals who report sexting with their partner as rewarding will also self-disclose during sexting. This means that individuals who perceive their sexting relationship with their partner as highly rewarding are more likely to self-disclose during sexting or those who self-disclose frequently through sexting are more likely to perceive their sexting relationship with their partner as highly rewarding. To date, research pertaining to perceptions of rewards and costs that are associated with sexual communication have not focused on specific forms of sexual communication, but have instead examined the broader verbal forms that may occur face-to-face or by telephone (Lawrence & Byers, 1992; Lawrence & Byers, 1995). This finding is important because it supports the proposal that positive perceptions of sexting may not result in exclusively negative consequences, but are associated with aspects of communication that support healthy interactions within romantic relationships.

Within the same analysis, face-to-face sexual self-disclosure and sexting frequency were included as predictors of sexual self-disclosure during sexting. Face-to-face sexual self-disclosure was also found to predict sexting sexual self-disclosure. This suggests that individuals who self-disclose through other methods of communication (e.g., face-to-face) may utilize other forms of sexual self-disclosure. This outcome recognizes that sexting is one of many methods of sexual self-disclosure utilized by individuals who perceive sexual self-disclosure as rewarding. Lastly, sexting frequency was identified as a positive predictor of sexual self-disclosure during sexting. Thus, individuals' reports of sexting are associated with self-disclose during sexting. This finding, along with the ability of rewards-costs to predict sexual self-disclosure, indicates that those who perceive sexting as rewarding and sext frequently, also report higher perceived sexual self-disclosure with their partner. This finding supports SET, and aligns with prior findings in that the level of rewards associated with perceived self-disclosure is related to additional sexual self-disclosure with a partner (Byers & Demmons, 1999).

In accordance with the last aspect of SET, the current findings also revealed evidence to support a positive relationship between sexual self-disclosure and sexual satisfaction as well as a positive relationship between sexual self-esteem and sexting with the goal of relationship enhancement. Conversely this study identified a negative relationship between sexual satisfaction and sexting with the goal of relationship management. Therefore, the results suggest

that individuals in committed relationships may report higher sexual satisfaction and sexual self-esteem when using sexting as a form of sexual self-disclosure. Future research is needed in order to determine whether either or both scenarios can account for the current study's findings.

The current study lends support for using SET as a framework for investigating sexual self-disclosure during sexting. This finding lends support to the second portion of SET, in which expressing sexual desires through sexual self-disclosure may potentially increase sexual satisfaction (Byers & Demmons, 1999). The current finding suggests that the more an individual self-discloses through sexting, the more sexually satisfied they will feel within their current romantic relationship, or the more an individual is sexually satisfied, the more they report self-disclosing during sexting. To date, research has focused on global sexual communication, without examining specific methods of sexual self-disclosure. Distinguishing whether particular forms of communication may relate to increased sexual satisfaction is important, especially due to the belief that sexting may lead to negative social and psychological consequences (Mitchell et al., 2012). The results indicate that discussing desires, likes, and dislikes with a partner does not only occur through verbal discussions, and that employing novel forms of sexual communication can be associated with higher perceptions of sexual satisfaction.

As expected, sexual self-esteem was a significant predictor of sexual satisfaction. Due to the positive relationship between sexual self-esteem and perceptions of sexual performance, sexual ability (Ackard et al., 2000; Cash, 2002), and sexual communication (Oattes & Offman, 2007), the current relationship found between sexual self-esteem and sexual satisfaction may suggest that positive experiences with a romantic partner may increase one's sexual self-esteem and, therefore, one's sexual satisfaction. Sexting as a form of relationship enhancement was found to predict sexual satisfaction; a finding that was expected given the questions included within the sub-variable (e.g., To pursue my own sexual pleasure). This means that individuals may take part in sexting as a way to experience sexual pleasure (leading to sexual satisfaction) or individuals who are highly sexually satisfied may take part in sexting as another form of sexual pleasure. Further examination of this relationship is needed in order to determine whether individuals who are sexually satisfied are more likely to sext for pleasure or if sexting aids in increasing sexual satisfaction.

The negative relationship found between sexting as a form of relationship management and sexual satisfaction suggests that individuals who use sexting as a means of relationship

management do not appear to perceive their sexual relationship as sexually satisfying. In the current study, relationship management items focused on preventing conflict or discomfort with a current partner, which supports previous findings of a negative relationship between sexual partner conflict and sexual satisfaction (Haning, O’Keefe, Randall, Kommor, Baker, & Wilson, 2007). This suggests that those who experience high levels of conflict with their partner may also report low sexual satisfaction and therefore they do not perceive their sexual relationship as sexually satisfying (Haning et al., 2007). Applying past findings to the current study suggests that individuals who reported taking part in sexting as a means of decreasing/avoiding conflict or discomfort may not consider the sexual behaviour as enjoyable, but rather a task (Impett, Poplau, & Gable, 2005). It is possible that individuals who sext as a means of relationship management may also perceive the interaction as less pleasurable, therefore decreasing their level of sexual satisfaction within the relationship.

Individuals who use sexting as a means of enhancing their relationship are more likely to feel more sexually satisfied, which might be a result of attending to the needs of their self and partner (Sanchez, Moss-Racusin, Phelan, & Crocker, 2011), as opposed to sexting as a means of decreasing future conflict (i.e., relationship management). This finding follows the theoretical tenets of SET, where individuals are more likely to engage in an activity if they perceive it as rewarding (Thibaut & Kelley, 1965), or in the current case enhancing to their relationship. In addition, individuals who utilize sexting as a means of relationship management were less likely to report their relationship as sexually satisfying. Therefore, attending to the needs of the relationship as opposed to focusing on sexual pleasure may decrease the level of rewards perceived during sexting and, therefore, limit the perceived sexual satisfaction that could be gained from such behaviour.

Although sexting frequency was hypothesized to predict sexual satisfaction, because it was thought that more frequent sexting would result in more frequent sexual self-disclosure during sexting, the findings from the current study did not support this relationship. However, sexual self-disclosure was found to significantly predict sexual satisfaction. Therefore, it is perhaps the quality and not the quantity of sexual self-disclosure during sexting that is more important. Global attitudes toward sexting did not emerge as a predictor of either relationship or sexual satisfaction. Attachment dimensions, specifically anxiety, were related to relationship satisfaction, but not sexual satisfaction in the present study. Other researchers have found

attachment styles to predict sexual satisfaction, however, these relationships were mediated by sexual communication within a relationship, which is a predictor of relationship satisfaction (Davis, Shaver, Widaman, Vernon, Follette, & Beitz, 2006). Therefore, individuals' attachment styles may relate more to relationship satisfaction than sexual satisfaction per se.

Lastly, sexual self-disclosure during sexting was hypothesized to significantly predict relationship satisfaction due to the association between relationship and sexual satisfaction as well as the proposed link between sexual communication and relationship satisfaction (Meeks, Hendrick, & Hendrick, 1998). Unexpectedly, only anxious attachment was a significant, predictor of relationship satisfaction (a negative association), a finding that is supported by past attachment literature (Birnbaum, 2007). The lack of relationship between sexual self-disclosure during sexting and relationship satisfaction was not anticipated because, based on past SET and sexual satisfaction research, individuals who self-disclose more typically experience greater relationship satisfaction through perceiving the interaction as rewarding and reciprocating (Byers & Demmons, 1999; Meeks, Hendrick, & Hendrick, 1998). Individuals' relationship satisfaction may be related to more relationship or emotional factors, for example attachment factors or general communication, rather than sexual factors such as sexting or sexual self-esteem. More emotional factors, such as the quality of communication (Cupach & Comstock, 1990), perceived intimacy, trust (Anderson & Emmers-Sommer, 2006), and attachment dimensions (Butzer & Campbell, 2008; Birnbaum, 2007), are found to be significant predictors of relationship satisfaction in face-to-face and online relationships. Therefore, sexual self-esteem and sexual self-disclosure during sexting may influence other aspects of the sexual romantic relationship, while attachment, specifically the level of anxious attachment, may influence how satisfied an individual is with their relationship.

The current study has provided support for the application of SET to the domain of sexting within romantic relationships. Uniting the findings that support SET (i.e., relationship between perceptions of rewards minus costs and sexual self-disclosure during sexting, and sexual self-disclosure during sexting and sexual satisfaction) provides an indication that SET is an appropriate theory to employ in order to further understand the relationship between sexting and sexual satisfaction. It suggests that individuals' perceptions of their current reward/cost level of sexting with their current partner may indirectly relate to sexual satisfaction. Although sexting behaviours and attitudes were found to be associated with sexual satisfaction, they were not

found to predict relationship satisfaction signifying that sexual satisfaction is just a portion of overall relationship satisfaction. These findings are important as they support the premise that positive perceptions of sexting may not result in only negative consequences, but are associated with aspects of communication that support healthy interactions within romantic relationships.

## **5.2 Gender Differences**

A second aim of the current study was to explore gender differences in attitudes toward sexting and rewards/costs associated with sexting. To date, limited research has focused on gender differences, possibly due to the emphasis on the effects of sexting towards women's mental and social wellbeing and/or the inadequate recruitment of men for sexuality research. Thus, I believed that examining gender differences would provide a richer understanding of young adults' rationales for sexting.

Contrary to our hypothesis, women reported sexting as simultaneously both significantly more fun/carefree and risky than did the men in the sample. Although these attitudes may appear to contradict each other (e.g., positive versus negative attitudes), these results suggest that women may recognize that sexting can be risky and enjoyable more than men. Although past consequences of sexting were not examined, the gender difference for both attitudes (i.e., fun/carefree and risky) may relate to women continuing to sext even when identifying that sexting is risky (Drouin & Landgraff, 2012). Current media portray women as sexting victims (Mitchell et al., 2012), yet women continue to sext (Drouin & Landgraff, 2012). The fact that women are aware of the potential risks associated with sexting (e.g., I think that sexting may cause me problems in the future), yet continue to anticipate positive outcomes regardless of this knowledge, suggests that attitudes toward sexting are complex. Determining that women perceive sexting as risky, but also a behaviour that is fun and carefree, provides insight as to why women may continue to sext while reporting acknowledgement that sexting is risky (Weisskirch & Delevi, 2011). Although women realize there are risks associated with sexting, they recognize that sexting may also be beneficial, an attitude that may override their assessment of whether to take part in sexting with their current partner. In summary, women identified less specific costs associated with sexting than men, but perceived sexting as generally more risky than did men. Therefore, although a limited number of hypothetical costs were identified, women perceived sexting as potentially more detrimental to their future. This means that it may not be the number



of potential negative consequences but their assessment of severity of a few costs that are perceived as more risky by women than men.

Contrary to expectations, men identified more abstract or hypothetical costs associated with sexting than women, while no gender differences were found in perceived rewards minus costs associated with sexting with a current romantic partner. This means that although men and women may perceive similar levels of rewards and costs while sexting with a current partner, men tend to identify significantly more hypothetical costs associated with sexting than do women. This finding does not align with previous research (Mitchell et al., 2012; Wysocki & Childers, 2011) regarding sexting and sexual gender roles where men have been found to predominantly perceive sexting as rewarding while women are thought to experience more costs (Mitchell et al., 2012; Weisskirch & Delevi, 2011; Wysocki & Childers, 2011). However, the current finding may suggest that young men may perceive more hypothetical costs of sexting than young women, yet personally perceive similar levels of costs of sexting within their current relationship as young women. This gender difference may be related to differential sexting motivations. Specifically, men in the current study also reported using sexting as a means of relationship management significantly more than women. Therefore, men who take part in sexting in order to decrease conflict within a sexual relationship may also recognize more hypothetical costs that may result from sexting with their current partner.

Others have posited that men take part in sexual experiences for rewards while women take part as a means of pleasing their partner (Emmers-Sommer et al., 2010). Therefore, it was predicted that women's motivations to sext would be oriented towards relationship management and men's motivations to sext would be oriented to relationship enhancement. However, the current study did not find evidence to support this hypothesis. Rather, men reported sexting as a means of relationship management significantly more than women, with no gender differences for relationship enhancement. This finding suggests that, women may not take part in sexting in order to appease their partner (Weisskirch & Delevi, 2011; Emmers-Sommer et al., 2010), but instead may sext for personal means such as personal sexual pleasure or for fun (i.e., to experience sexual rewards).

Sexual double standards may explain why the men in this study report utilizing sexting as a means of relationship management significantly more than women. It has been posited that men have a stronger desire for sexual intercourse and generally agree to take part in sexual

behaviours when approached by women (Crawford & Popp, 2003). Just as many women report reluctance to express sexual desire (Crawford & Popp, 2003), many men report reluctance to express a lack of sexual desire (Conley, Ziegler, & Moors, 2013). Specifically, some men report that if they reject sexual intercourse then they expect to be perceived as less attractive, socially inappropriate, and less masculine than they sense their self to be (Conley et al., 2013).

Consequently, men may experience instances of taking part in sexual behaviours with a partner while feeling low sexual desire (Conley et al., 2013). The identified consequences of rejecting the sexual advances of a partner align with the current study's measure of sexting goals (e.g., To prevent my partner from losing interest in me). Sexting, a form of sexual exploration and expression, is likely to generate similar feelings associated with sexual activities, such as sexual intercourse. Men within the current study may experience internal pressure (a result of societal expectations) to sext, and therefore engage in sexting due to their belief that a partner may not perceive them as attractive, sexually appropriate, or masculine. Therefore, men might sext in order to ensure their partner continues to perceive them as a suitable partner. Young men may believe that they will be perceived as less masculine or attractive (leading to their partner losing interest) if they reject their partners' sexting advances. Thus, men may report that they sext as a means of relationship management significantly more than women due to sexual double standards.

It should be recognized that the high reports of sexting rewards and the association between sexual self-disclosure during sexting and sexual satisfaction might be a result of cognitive dissonance resulting in behaviour justification. Cognitive dissonance is the discomfort experienced when an individual possesses two contradictory beliefs or values at the same time (Festinger, 1962). Experiencing such discomfort is not ideal, resulting in an attempt to eliminate such uneasiness by one of four methods: changing a behaviour or cognition, justifying a behaviour or cognition by altering the incompatible cognition, justifying a behaviour or cognition by adding supplementary cognitions, or ignoring the confliction present in one's beliefs (Festinger, 1962).

Due to the nature of the current study, where individuals were asked about past sexting behaviours, it is likely that individuals who may have adverse attitudes regarding past sexting behaviours may alter their perception of sexting in order to feel confident of their past actions. This change in cognition may be evident in attitudes toward sexting, perceptions of sexting

rewards and costs, as well as individuals perceptions of sexual and relationship satisfaction. This explanation is relevant to the current study because of the high reports of sexual and relationship satisfaction, as well as the high reports of sexting rewards (compared to costs). Participants may feel the need to perceive sexting as beneficial and perceive their relationship (both romantically and sexually) as highly satisfying in order to decrease possible discomfort resulting from past sexting behaviours. However, it is possible that participants genuinely enjoy sexting, perceive sexting as rewarding, and are both sexually and romantically satisfied with their current partner.

The current study has provided a broader understanding of gender differences for attitudes toward sexting, perceived rewards and costs, and motivations to sext. Although it was assumed that women would report more costs associated with sexting than men, this pattern was not identified. Rather, the women in this study indicated perceiving sexting as more fun and carefree, albeit also more risky, than did the men. It appears that women may take part in sexting even when acknowledging their risks because the benefits and the ‘fun’ outweigh the risks. In addition, men may perceive more costs associated with sexting, possibly a result of utilizing sexting as a method of relationship management. These findings provide evidence that young adults acknowledge that costs are associated with sexting, however they do not hold strictly negative attitudes toward sexting, but instead understand and/or perceive sexting as potentially providing more rewards than costs.

### **5.3 Theoretical Implications**

Results of the current study offered partial support for applying SET to the prediction of reports of sexting behaviours in young adults’ romantic relationships. Specifically, it was found that overall, 1.6% of the variance in reports of sexually self-disclosing by sexting was accounted for by the perceived rewards minus costs of sexting variable. The variance accounted for by the perceived rewards minus costs of sexting variable is lower than previous findings related to the amount of variance accounted for by previous SET research. For example, Byers and Demmons (1999) reported that perceived rewards minus costs within a long-term sexual relationship accounted for 3.0% of the variance in the prediction of sexual self-disclosure. As well, studies examining IMESS as a theoretical model for SET found that perceived rewards minus costs of a relationship accounted for 28% of the variance in reports of sexual satisfaction (Lawrance & Byers, 1995).

Although the amount of variance accounted for in the study is lower than previous findings related to sexual self-disclosure, this difference may be due to two explanations: sexting is one method of sexual communication, and the additional costs that are discussed around sexting. First, it should be recognized that sexting is one of many forms of sexual communication between romantic partners. Therefore, the lower variance observed may be a result of sexting as portion of the relationship between sexual communication and sexual satisfaction. It is unlikely that individuals within the current study exclusively communicate with their partner in a sexual manner during sexting. Sexual communication is complex and can occur through multiple mediums, all of which will likely associate with sexual satisfaction.

According to SET, those who perceive their interactions as more rewarding will be more likely to continue such activities (such as sexually disclosing during sexting) and to perceive the interactions as satisfying (Byers, Demmons, & Lawrence, 1998; Lawrence & Byers, 1995). However, young adults are constantly reminded that sexting is costly to their psychological wellbeing, social interactions, and may pose a threat to their future careers. Therefore, individuals may report that they perceive sexting as more costly in order to align with public messages that they deem socially acceptable. Participants tend to underreport perceptions and experiences related to sexuality in order to respond in way that is socially acceptable (Alexander & Fisher, 2003; Biddlecom, 2004). For example, reports of frequency of masturbation, exposure to erotica, and sexual intercourse are found to fluctuate, dependent on response conditions, in order to mimic socially acceptable standards (Alexander & Fisher, 2003). Due to the controversy related to sexting, with media presenting sexting as a risky sexual activity that may lead to suicide, hypersexualization, cyber-bullying, and legal issues (Chalfen, 2010; Mitchell et al., 2012), it is likely that participants in the current study responded in fashion that mirrored such messages.

In summary, SET partially explained young adults' use of sexting as a means of sexual self-disclosure to increase sexual satisfaction. However, this relationship is weaker than past findings regarding sexual self-disclosure and sexual satisfaction, possibly a result of sexting as just one approach to sexual communication. Additionally, young adults may perceive there to be the costs of sexting, but attitudes of sexting as enjoyable may override such perceptions and result in more frequent sexting behaviour.

#### **5.4 Practical Applications of the Findings**

To date, sexting has been perceived as a negative behaviour that poses a threat to the wellbeing of young adults (Judge, 2012), while positive effects of sexting toward individuals' sexuality have yet to be examined in detail. The small body of research that does exist, along with the results from the current study, suggests that perceiving sexual experiences with a romantic partner as rewarding or costly is related to sexual satisfaction (Byers & Demmons, 1998). Specifically, it was found that reports of sexting with a current romantic partner as rewarding were positively related to sexual self-disclosure during sexting, a variable that was found to predict sexual satisfaction within their current romantic relationship.

In light of previous research that has demonstrated that levels of perceived sexual satisfaction with a current partner may influence relationship dissolution (Sprecher, 2002), it is important that young adults become more aware of the relationship between sexual self-disclosure and sexual satisfaction. Results from the current study suggest that individuals who have a high sexual self-esteem and who utilize sexting as a means of both sexual self-disclosure and relationship enhancement, and who limit the use of sexting as a means of relationship management, may also experience high sexual satisfaction. Providing findings from the current study to adolescents during sexual education classes, as well as to the public through media, may change the perception of sexting within society, possibly increasing the use of sexting as a form of sexual self-disclosure. For example, discussions pertaining to sexting must provide both potential consequences and benefits of sexting within romantic relationships, specifically the relationship between sexual self-disclosure during sexting and sexual satisfaction. Sexting may have the potential of improving perceptions of sexual satisfaction of individuals in romantic committed relationships. Although the findings are correlational, acknowledging the potential benefits of sexting may provide individuals with a deeper understanding of how a romantic relationship may benefit from the use of sexting. However, this information must be presented with safe sex guidelines in order to increase the use of precautions while sexting. In addition, an examination of the applicability of sexting as a method of increasing sexual satisfaction would be beneficial in order to provide individuals with additional methods of incorporating sexual behaviours within their romantic relationships.

## **5.5 Limitations**

The results from the current study have demonstrated support for the applicability of SET with sexting as the main behavioural construct in predicting sexual satisfaction in young adults. However, limitations of the current study have been recognized that suggest the results should be taken with caution when generalizing the findings.

### **5.5.1 Sample Homogeneity**

The majority of participants were Caucasian women living within Canada who self-identified as heterosexual, with a mean age of 21.02 years. Specifically, of 356 participants, 260 were Caucasian, and 80% were women. It would have been beneficial to include individuals from other geographic locations to examine whether individuals who reside within non-Western nations portray sexting in relationships differently. For example, North American Caucasian women report significantly higher levels of sexual desire, and significantly lower levels of sexual guilt and conservatism than women who have immigrated from East Asia (Woo, Brotto, & Gorzalka, 2011). However, this lack of diversity comes with a university sample (Jones, 2010).

While much of the research related to sexting examines sexting behaviours of young women, and limited significant differences were found between men and women, the current study would have benefited from equal proportions of both genders to provide a more comprehensive view of sexting in young adults relationships'. For example, gender differences were found in costs of sexting and attitudes toward sexting. Including equal samples of men and women would allow for a stronger confidence that gender differences/similarities found are representative of the sample rather than a product of volunteer bias (i.e., individuals with specific attitudes toward sexting volunteering to participate). Due to the limited participation from men, the current study may have included like-minded men who wanted to express particular extreme attitudes towards sexting. Therefore, the perceptions, attitudes, and experiences reported may be a subset of similar cases. In addition, a larger sample of men within a study regarding sexting would further the understanding of sexting within young adults because of the lack of representation of men within the current literature (Dake et al., 2012). However, the current study provides a glimpse into sexting behaviours of young men, an area currently lacking within social psychology literature.

### **5.5.2 Reliance on Self-Report**

Although the current study aimed to assess perceptions of sexual behaviours and experiences with a current partner, the reliance on self-report data creates an issue of misrepresentation due to social desirability related to the sensitivity of the subject, as well as an issue of retrospective experience recall. Issues related to recall and social desirability are especially important in the area of attachment, attitudes toward sexting, and perceptions of sexting as rewarding or costly due to self-presentation concerns (Krumpal, 2013) and the lack of attention to one's attachment style (Feeney & Noller, 1991). Specifically, individuals may not routinely assess components of their attachment styles or perceptions of rewards and costs unless prompted, typically within research settings (Feeney & Noller, 1991), suggesting that reporting self-perceptions may be novel for individuals participating in psychological research. Therefore, it cannot be assumed that all responses were unbiased, specifically reports of past sexting activity and attitudes toward sexting. Although an attempt to control social desirability did occur within the current study by ensuring participants that the online survey was anonymous, retrospective recall was not addressed. Future research may benefit from collecting data from two time points to increase the likelihood of true reports of past experiences.

### **5.5.3 Examination of One Aspect of SET**

The current study examined only one specific aspect of SET, the perceptions of rewards and costs associated with sexting with their current romantic partner. This aspect of SET was the focus because it may best explain past research findings where young adults express that sexting is costly, yet continue to take part in sexting. In addition, the weighing of costs and rewards has been found to be the main predictor of sexual self-disclosure and sexual satisfaction in prior SET research (Byers & Demmons, 1999). However, further examination of sexting and sexual satisfaction with all aspects of SET (perceived rewards minus costs, comparison level of rewards minus the comparison level of costs, and equality) would extend the understanding of the relationship of rewards and costs of sexting and sexual satisfaction. It is possible that the comparison of one's own rewards and costs to a partner's rewards and costs related to sexting as well as equity of sexting may account for a significant portion of sexual satisfaction and romantic satisfaction. Future research that incorporates additional aspects of SET may provide a deeper understanding of sexting and sexual satisfaction.

#### **5.5.4 Data were Correlational**

The current study included measures that focus on past experiences and current perceptions/beliefs of sexting and satisfaction, and as a result the findings are exclusively correlational. Although the findings provide evidence of a relationship among sexting and relationship/sexual satisfaction, the results cannot be interpreted as causal and the direction of the relationship among variables cannot be determined. Therefore, the influence of sexting toward any aspect of an individual's well-being cannot be made.

#### **5.5.5 Selection Bias**

Due to the title and description of the current study during recruitment, participants may include individuals who possess extreme perceptions of sexting (i.e., perceive sexting as a beneficial form of sexual communication) or are more sexually adventurous. Volunteers of sex research studies are generally more sexually experienced, report less traditional sexual attitudes, and report higher sexual self-esteem (Dunne, 2002; Wiederman, 1999). This limitation may affect the rates of sexting found within the current study, as well as participants' reports of sexting attitudes, goals, and perceptions of rewards and costs associated with sexting.

In addition, individuals who are unhappy in their current relationship or take part in sexting due to pressure from a partner may not take part in a sexting and relationship study as a means of topic avoidance. Potential participants may avoid research topics in which they feel a sense of guilt. For example, individuals who experience sexual guilt tend to dismiss volunteer opportunities related to sex research, with individuals who perceive sexuality and past sexual experiences in a negative manner avoiding research that measures such topics (Plaud, Gaither, Hegstad, Rowan, & Devitt, 1999). This means that individuals who feel guilty about their sexting behaviours or feel guilty about their perceptions of their current relationship may avoid participation in sexting and relationship research. Therefore, the findings may not truly represent the target population, but rather individuals who are willing to openly discuss or report their sexual behaviours.

### **5.6 Directions for Future Research**

#### **5.6.1 Further Examination of SET**

Results from the current study revealed that greater sexual self-disclosure during sexting were found to be predictor of greater sexual satisfaction. Based on the findings from the current study, examination of sexting with all aspects of SET (perceived rewards minus costs,



comparison to a partner's rewards/costs with sexting and equity of sexting between partners) may further the understanding of the role of sexting in sexual satisfaction.

Replicating the current study with all aspects of SET (perceived rewards minus costs, comparison level of rewards minus the comparison level of costs, and equality) would further the understanding of the association between sexting and sexual satisfaction. Ideally the study would include questions related to: positive and negative experiences of self-disclosure during sexting; feelings during sexting; influence of sexting on future sexual experiences; why and when sexting is preferred; conversations that have influenced sexual self-esteem; and the influence of sexting on overall sexual abilities. It is also suggested that a more in-depth study of the relationship be conducted through the use of a qualitative analysis. By conducting such a study and providing young adults an opportunity to express their sexting experiences without forcing individuals to define their experiences through a structured list, a deeper understanding of where perceived rewards and costs related to sexting may emerge. This may allow for additional consideration of the positive or negative outcomes that sexting may have on the wellbeing of an individual and, therefore, dyadic romantic couples.

### **5.6.2 Closer Examination of Gender Differences found with Rewards and Costs**

Although men and women did not differ in their perceptions of rewards and costs of sexting with their current partner, men were found to report significantly more sexting costs than women when provided a rewards/costs checklist. This finding does not coincide with past sexual research related to men's and women's perceptions of rewards and costs in a sexual relationship. For example, Sedikides and colleagues (2005) found women identified significantly more sexual behaviours as costly than men. Future research would benefit from examining, through qualitative analyses, why men perceive more costs, yet both genders report similar accounts of rewards associated with sexting. Due to the limited research pertaining to sexting and the development of perceptions of rewards and costs associated with sexting, a qualitative analysis that allows for the semi-structured identification (rather than structured questionnaires) of cost and reward development would be valuable. Results from the proposed study would identify why gender differences exist in the perceptions of overall costs and rewards, as well as further our understanding of sexting and the influence of past experiences or social desirability toward young adults' reported perceptions of sexting.

## 5.7 Conclusion

Results of the current study demonstrated partial support for the application of SET in understanding how sexting may be related to relationship and sexual satisfaction in young adults. Although perceptions of rewards and costs associated with sexting did not correlate with relationship satisfaction, these perceptions predicted a form of sexual self-disclosure during sexting, which is linked to sexual satisfaction. This highlights the complexity of satisfaction within a romantic relationship.

Along with the important theoretical findings, results also emerged that help expand upon the knowledge base of attitudes toward sexting and goals of sexting. Specifically, it was revealed that women report significantly more positive and negative attitudes toward sexting than men. Although women believe that sexting is fun and carefree, they also perceive sexting to be risky. These findings emphasize the complexity of understanding why young women report experiences of sexting while acknowledging sexting as costly/risky, and suggest that attitudes toward sexting are not unidirectional, but young adults may understand sexting to be both enjoyable and risky.

Lastly, the current findings suggest that, unlike past research concluding that women utilize sexual behaviours as a means of pleasing their partner, the women in this sample do not report sexting as a means of relationship management, or to make their partner happy. Rather, they were more likely to report sexting as a means of enriching their relationship. This suggests that sexting should not be viewed as a strictly negative behaviour that presents only harmful consequences to young adults, but rather another form of sexual expression that is associated with positive sexual development.

Overall, the results indicate that SET is a promising theory to examine the relationship between sexting and sexual satisfaction. Young adults do not perceive sexting as a strictly negative behaviour, but instead associate both positive and negative aspects with sexting. In fact, for both men and women the associated benefits or rewards of sexting appeared to outweigh the associated costs. This highlights the complexity of young adults' perceptions of sexual communication. In addition, the study's outcomes reveal that sexting is not used solely with negative intentions, but rather is utilized as one form of sexual self-disclosure to a romantic partner and is associated with sexual satisfaction. Therefore, contrary to popular societal opinion,

sexting may not be an entirely a negative behaviour with only negative consequences, but instead may be a positive tool for sexual communication.

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**Appendix A: Consent Forms**  
**Consent Form for Participant Pool Subjects**



**Sexting in Intimate Romantic Relationships**

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You are invited to participate in a research study entitled *Sexting in Sexual/Romantic Relationships*. Please read this form carefully, and feel free to ask any questions you might have about the study by contacting the researchers using the information below. Please print off a copy of this form for your records.

**Student-Researcher:** Kirstian Gibson, Department of Psychology, 306-966-6159, [kig579@mail.usask.ca](mailto:kig579@mail.usask.ca).

**Supervisor:** Karen Lawson, Department of Psychology, 306-966-2524, [karen.lawson@usask.ca](mailto:karen.lawson@usask.ca).

**Purpose and Objectives:** The proposed study is designed to examine the use of cell phones as a means of communicating with sexual partners.

**Procedures:** If you decide to participate, you will be asked to complete a web-based survey that includes a number of measures asking you about your experiences, attitudes, and beliefs in relation to your current relationship, specifically related to using technology as a form of sexual communication with your current partner. Please note: this survey includes some very explicit questions that deal with very personal issues, such as sexual behaviours and experiences with sexting that may make some people feel uncomfortable. Rest assured that the survey is completely anonymous and no one, not even the researchers, will be able to identify you or your answers. However, please feel free to leave unanswered any questions that make you feel uncomfortable. The estimated time of completion for this study is 20 minutes.

**Risks:** There are no known risks associated with participation in this study. Furthermore, you may receive no personal benefits from participation in the study. At the end of the study you will be directed to a debriefing form that better explains the nature of the study. You may print off this form for your records and you may contact the researchers by email should you have any questions or concerns. You may also contact the University of Saskatchewan's Student Health and Counselling Services (966-5768) should you have any questions about the subject material or have become upset as a result of participating in this study.

**Compensation:** If you decide to participate, you will be awarded 1 credit towards your Psychology 110 bonus marks for research study participation. Your NSID cannot be linked to your survey data; we will only know that you have participated by reviewing who has accessed the link through the Psychology 110 Participant Pool.

**Confidentiality:** Your information is completely anonymous, and we will not ask you for any identifying information. Your responses will only be used as part of a larger dataset. All the data from the survey will be securely stored for five years and then it will be destroyed beyond recovery through the use of Eraser, a free file eraser programs that overwrites the deleted files on personal computers/laptops and portable media. Eraser is an advanced security tool for Windows

which allows you to completely remove sensitive data from your hard drive by overwriting it several times with carefully selected patterns. . The data may be published in an academic journal and/or presented at a professional conference. This survey is hosted by Fluid Survey a company located in the USA and subject to US laws and whose servers are located outside of Canada. The privacy of the information you provide is subject to the laws of those other jurisdictions. By participating in this survey you acknowledge and agree that your [answers/information] will be stored and accessed outside of Canada and may or may not receive the same level of privacy protection.

**Right to withdraw:** You may withdraw from the study for any reason, at any time prior to submitting the data, without penalty of any sort and/or without loss of a research credit. If you wish to withdraw from the study simply close your web-browser without submitting your data. However, due to the anonymous nature of the database, you will not be able to withdraw after you have submitted your data because of the inability to identify the data of any specific individual.

**Questions:** If you have any questions concerning the study, please feel free to ask at any point by contacting the researchers by email. You are also free to contact the researchers at the numbers provided above if you have questions at a later time. The proposed research was reviewed on ethical grounds by the Behavioural Research Ethics Board. Any questions regarding your rights as a participant may be addressed to the Research Ethics Office ([ethics.office@usask.ca](mailto:ethics.office@usask.ca); toll free at 1-888-966-2975). You may obtain a copy of the results of the study by contacting the student-researcher or the supervisor.

At the end of our study (April, 2016), we will make a summary of the results available on our reproductive psychology research team website: [www.reproductivepsy.usask.ca](http://www.reproductivepsy.usask.ca). You may also choose to contact the researchers by email for a summary of the results.

**Consent to Participate:** I have read and understand the description of the research study provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I agree to participate in the study described above, understanding that I may withdraw my consent to participate at any time prior to submitting my data. PLEASE PRINT OFF A COPY OF THIS PAGE FOR YOUR RECORDS. YOU MAY ALSO EMAIL THE RESEARCHERS TO OBTAIN A COPY OF THIS PAGE ([kig579@mail.usask.ca](mailto:kig579@mail.usask.ca); [karen.lawson@usask.ca](mailto:karen.lawson@usask.ca)).

- YES (Participants will be directed to study)
- No (Participants will be directed to end of study)

## Consent Form for PAWS Pool Subjects



### Sexting in Intimate Romantic Relationships

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You are invited to participate in a research study entitled *Sexting in Sexual/Romantic Relationships*. Please read this form carefully, and feel free to ask any questions you might have about the study by contacting the researchers using the information below. Please print off a copy of this form for your records.

**Student-Researcher:** Kirstian Gibson, Department of Psychology, 306-966-6159, kig579@mail.usask.ca.

**Supervisor:** Karen Lawson, Department of Psychology, 306-966-2524, karen.lawson@usask.ca.

**Purpose and Objectives:** The proposed study is designed to examine the use of technology as a means of communicating with sexual partners.

**Procedures:** If you decide to participate, you will be asked to complete a web-based survey that includes a number of measures asking you about your experiences, attitudes, and beliefs in relation to your current relationship, specifically related to using technology as a form of sexual communication with your current partner. Please note: this survey includes some very explicit questions that deal with very personal issues, such as sexual behaviours and experiences with sexting that may make some people feel uncomfortable. Rest assured that the survey is completely anonymous and no one, not even the researchers, will be able to identify you or your answers. However, please feel free to leave unanswered any questions that make you feel uncomfortable. The estimated time of completion for this study is 20 minutes.

**Risks:** There are no known risks associated with participation in this study. Furthermore, you may receive no personal benefits from participation in the study. At the end of the study you will be directed to a debriefing form that better explains the nature of the study. You may print off this form for your records and you may contact the researchers by email should you have any questions or concerns. You may also contact the University of Saskatchewan's Student Health and Counselling Services (966-5768) should you have any questions about the subject material or have become upset as a result of participating in this study.

**Compensation:** You will not receive any official compensation for completing this survey. However, we hope that you will enjoy providing your opinions and providing the ability to further research knowledge.

**Confidentiality:** Your information is completely anonymous, and we will not ask you for any identifying information. Your responses will only be used as part of a larger dataset. All the data from the survey will be securely stored for five years and then it will be destroyed beyond recovery through the use of Eraser, a free file eraser programs that overwrites the deleted files on personal computers/laptops and portable media. Eraser is an advanced security tool for Windows which allows you to completely remove sensitive data from your hard drive by overwriting it several times with carefully selected patterns. . The data may be published in an academic

journal and/or presented at a professional conference. This survey is hosted by Fluid Survey a company located in the USA and subject to US laws and whose servers are located outside of Canada. The privacy of the information you provide is subject to the laws of those other jurisdictions. By participating in this survey you acknowledge and agree that your [answers/information] will be stored and accessed outside of Canada and may or may not receive the same level of privacy protection.

**Right to withdraw:** You may withdraw from the study for any reason, and without loss of research credit, at any time prior to submitting the data. If you wish to withdraw from the study simply close your web-browser without submitting your data. However, due to the anonymous nature of the database, you will not be able to withdraw after you have submitted your data because of the inability to identify the data of any specific individual.

**Questions:** If you have any questions concerning the study, please feel free to ask at any point by contacting the researchers by email. You are also free to contact the researchers at the numbers provided above if you have questions at a later time. The proposed research was reviewed on ethical grounds by the Behavioural Research Ethics Board. Any questions regarding your rights as a participant may be addressed to the Research Ethics Office ([ethics.office@usask.ca](mailto:ethics.office@usask.ca); toll free at 1-888-966-2975). You may obtain a copy of the results of the study by contacting the student-researcher or the supervisor.

At the end of our study (April, 2016), we will make a summary of the results available on our reproductive psychology research team website: [www.reproductivepsy.usask.ca](http://www.reproductivepsy.usask.ca). You may also choose to contact the researchers by email for a summary of the results.

**Consent to Participate:** I have read and understand the description of the research study provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I agree to participate in the study described above, understanding that I may withdraw my consent to participate at any time prior to submitting my data. PLEASE PRINT OFF A COPY OF THIS PAGE FOR YOUR RECORDS. YOU MAY ALSO EMAIL THE RESEARCHERS TO OBTAIN A COPY OF THIS PAGE ([kig579@mail.usask.ca](mailto:kig579@mail.usask.ca); [karen.lawson@usask.ca](mailto:karen.lawson@usask.ca)).

- YES (Participants will be directed to study)
- No (Participants will be directed to end of study)



## Appendix B: Sexual Self-Disclosure Questionnaire

In a relationship, partners may communicate with each other about what they like and dislike about their sexual interactions. Think of your sexual relationship with your partner. For each question below, select the number that best describes how much you communicated to your partner about your sexual likes and dislikes face-to-face.

How much have you told your partner about:

[All questions are rated on a 1 to 7 scale, where 1 = Not at all and 7 = Everything]

1. The way(s) you like to be kissed?
2. The way(s) you don't like being kissed?
3. The way(s) you like to be touched sexually?
4. The way(s) you don't like to be touched sexually?
5. The way(s) you like to have intercourse?
6. The way(s) you don't like having intercourse?
7. The way(s) you like receiving oral sex?
8. The way(s) you don't like receiving oral sex?
9. The way(s) you like giving oral sex?
10. The way(s) don't like giving oral sex?
11. What you like about the amount of variety in your sex life?
12. What you don't like about the amount of variety in your sex life?

## Appendix C: Interpersonal Exchange Model of Sexual Satisfaction Questionnaire

### *Global Measure of Sexual Satisfaction*

In general, how would you describe your SEXUAL relationship with your partner?

For each pair of words below, select the number which best describes your sexual relationship, as a whole.

VERY BAD							VERY GOOD
1	2	3	4	5	6	7	
	VERY						VERY
UNPLEASANT							PLEASANT
1	2	3	4	5	6	7	
	VERY						VERY
NEGATIVE							POSITIVE
1	2	3	4	5	6	7	
	VERY						VERY
UNSATISFYING							SATISFYING
1	2	3	4	5	6	7	
	VERY						VERY
WORTHLESS							VALUABLE
1	2	3	4	5	6	7	

## Appendix D: Global Measure of Relationship Satisfaction

In general, how would you describe your **overall** relationship with your partner?

For **each** pair of words below, circle the number which best describes your relationship, as a whole.

VERY BAD							VERY GOOD
1	2	3	4	5	6	7	
VERY UNPLEASANT							VERY PLEASANT
1	2	3	4	5	6	7	
VERY NEGATIVE							VERY POSITIVE
1	2	3	4	5	6	7	
VERY UNSATISFYING							VERY SATISFYING
1	2	3	4	5	6	7	
WORTHLESS							VERY VALUABLE
1	2	3	4	5	6	7	

**Appendix E: Level of Sexual Rewards and Level of Sexual Costs Items**

Think about the **rewards** that **you** have experienced in **your sexual relationship with your partner** in the last 3 months. How rewarding is your sexual relationship with your partner? (Circle a number)

**NOT AT ALL**

**EXTREMELY**

**REWARDING**

**REWARDING**

1    2    3    4    5    6    7    8    9

Think about the **costs** that **you** have experienced in **your sexual relationship with your partner** in the last 3 months. How costly is your sexual relationship with your partner? (Circle a number)

**NOT AT ALL**

**EXTREMELY**

**COSTLY**

**COSTLY**

1    2    3    4    5    6    7    8    9

## Appendix F: Sexual Rewards and Costs Checklist

**On the next few pages are some questions specifically about your SEXUAL relationship in regards to SEXTING with your partner.** Before you answer them, it is important that you carefully read the information on this page.

Think about a job.

If you're like most people, you can give concrete examples of positive, pleasing things that you like about your job. These are "**REWARDS.**"

Most people can also give concrete examples of negative, displeasing things they don't like about their job. These are "**COSTS.**"

Below is a short list of possible rewards and costs that could go with a job.

Rate of pay  
Level of responsibility  
Interactions with your boss  
The hour at which you start work  
Opportunity for advancement

For example:

"Rate of pay" would be a **reward** if you felt you were being paid well...but it would be a **cost** if you felt you were being *underpaid*.

"Level of responsibility" would be a **reward** if you had just enough responsibility at work, but it would be a **cost** if you had either *too much* or *too little* responsibility at work.

"Interactions with your boss" would be **neither** a reward nor a cost if you really didn't interact much with your boss.

"The hour you start work" would be **both** a reward and a cost if you like starting at that time, but you dislike the rush-hour traffic at that time.

Now, instead of thinking about your job, **think about rewards and costs in your sexual relationship with your partner**, and answer the question on the following pages.

Below is a list of rewards and costs that many people experience in their sexual relationships. Please indicate the rewards and costs that **you** associate with your **sexual relationship with your romantic partner** using the following guidelines:

If the item is usually a **reward** for you in your sexual relationship, **check REW.**

If the item is usually a **cost** for you in your sexual relationship, **check CST**.

If the item is **neither** a reward nor a cost for you, **leave both spaces blank**.

A few items might be both a reward and a cost at the same time. If the item is **both** a reward and a cost for you, **check REW and CST**.

Remember, things that are positive, pleasing, “just right” for you are rewards. Things that are negative, displeasing, “too little/too much” for you are costs.

For me this is a:

REW    CST

1. The level of affection expressed during sexting
2. The degree of emotional intimacy (feeling close) I feel during sexting
3. The extent to which my partner and I communicate about sex while sexting
4. The amount of variety while sexting (e.g., our sexual topics, times, etc)
5. The amount/type of sexting
6. How often I experience orgasm (climax) while sexting
7. The amount/type of our after play (after sexting)
8. The frequency of sexting
9. The degree of privacy my partner and I have for sexting
10. The physical sensations I experience from sexting
11. Feelings of physical discomfort I experience during sexting
12. Feelings of physical discomfort I experience after sexting
13. The amount of fun I experience during sexting with my partner
14. Who initiates our sexting activities
15. The level of stress/relaxation I feel during sexting
16. The level of stress/relaxation I feel after sexting
17. If I tell my partner that I enjoyed our sexting activities
18. If my partner tells me that he/she enjoyed our sexting activities
19. Chances of conceiving a child while sexting
20. How I feel about myself during our sexting activities
21. How I feel about myself after our sexting activities
22. How my partner treats me when we are sexting
23. Having to sext when I am not in the mood
24. Sexting when my partner is not in the mood
25. The extent to which I let my guard down
26. The use of sexting as a form of birth control
27. How comfortable I feel with my partner while sexting
28. How my partner influences me to engage in certain sexting discussions
29. The extent to which my partner and I argue after sexting activities
30. Being with the same partner each time we sext

31. The amount of time that my partner and I spend engaging in sexting activities
32. How easily I reach orgasm (climax) while sexting
33. How my partner responds to my sexual advances while sexting
34. My being naked/my partner seeing me naked in sexting messages
35. My partner being naked/me seeing my partner naked in sexting messages
36. The extent to which my partner discusses our sexting activities with others
37. My pleasing/trying to please my partner sexually while sexting
38. The extent to which our sexting interactions make me feel secure about our total relationship
39. The degree to which I feel sexually aroused/excited while sexting
40. The amount of spontaneity in our sexting experiences
41. The level of power/control I feel during sexting activities
42. The level of power/control I feel after sexting activities
43. Engaging in sexting activities my partner dislikes, but I enjoy
44. Engaging in sexting activities I dislike, but my partner enjoys
45. My risk of getting sexually transmitted disease from sexting
46. The degree to which our current sexting relationship interferes with other possible relationships for me
47. Other:
48. Other:
49. Other:

## Appendix G: Sexual Self-Esteem Inventory

Please read carefully:

You are asked to rate your feelings about several aspects of sexuality. You are not asked to describe your actual experiences, but to rate your reactions and feelings about your experiences, whatever they may be. In this questionnaire, “sex” and “sexual activity” refer to a variety of sexual behaviors, including hugging, kissing, caressing, and petting, as well as sexual intercourse. Current sexual activity is not necessary in order to answer the questions. There are no right or wrong answers; reactions to and feelings about sexuality are normally quite varied. What is important are your reactions to your own personal experiences, thoughts and feelings. Please answer each questions as honestly as possible. Using the rating scale at the top of each page, place the number which most closely matches the way you feel to the left of the question.

[All questions are rated on a 1 to 6 scale, where 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Mildly Disagree, 4 = Mildly Agree, 5 = Moderately Agree, and 6 = Strongly Agree]

1. I wish I were better at sex.
2. I am pleased with my physical appearance.
3. I am sure of what I want sexually.
4. I wish things were different for me sexually.
5. I feel guilty about my sexual thoughts and feelings.
6. I feel disappointed with my sex life.
7. I wish I were sexier.
8. I feel emotionally vulnerable in a sexual encounter
9. I am where I want to be sexually, at this point in my life.
10. I don't think there's anything wrong with my sexual feelings.
11. After a sexual encounter, I feel like something is missing.
12. I like my body.
13. I am afraid of losing control sexually.
14. I feel good about the place of sex in my life.
15. My sexual behaviors are in line with my moral values.
16. I am happy about my sex life.
17. If I could, I would change some parts of my body.
18. I feel I can usually judge how my partner will regard my wishes about how far to go sexually.
19. I like what I have learned about myself from my sexual experiences.
20. I worry a great deal about sexual matters.
21. I feel self-assured about my sexual abilities.
22. I am surprised when someone finds me attractive.
23. At times, I have been afraid of what I might do sexually.
24. All in all, I feel satisfied with my sex life.
25. I am sorry I lost (or would be sorry to lose) my virginity.



26. I feel pretty good at sex.
27. I hate my body.
28. I don't feel ready for some of the things I am doing sexually.
29. I wish I knew as much as my friends about pleasing a partner sexually.
30. There are parts of my body I feel embarrassed about.
31. I feel I could easily be talked into sexual activities I don't want.
32. Sometimes, I wish I could forget about sex.
33. I feel embarrassed about some of my sexual thoughts.
34. During a sexual encounter, I feel self-conscious.
35. I am less attractive than I would like to be.
36. When I am in a sexual situation, I feel confused about what I want.
37. I find my own sexuality a bit scary.
38. I never feel bad about my sexual behavior.
39. I feel that "sexual techniques" come easily to me.
40. I am happy with the way I look.
41. I feel physically vulnerable in a sexual encounter.
42. The "sexual me" is not the "real me".
43. Some of the things I do in sexual situations are morally wrong.
44. Sexually, I feel like a failure.
45. I am pleased with the way my body has developed.
46. I feel troubled about some sexual aspects of my life.
47. I feel much satisfaction from my sexual life.
48. I would like to trade bodies with someone.
49. In a sexual situation, I know what I want but don't know how to get it.
50. Sexual relationships have caused more trouble for me than they're worth.
51. I have no regrets about the things I have done sexually.
52. I do pretty well at expressing myself sexually.
53. I worry that some parts of my body would be disgusting to a sexual partner.
54. I am uncomfortable in letting my partner know what I want sexually.
55. I think I am too "easy".
56. I feel embarrassed about my lack of sexual experience.
57. I would be happier if I looked better.
58. I worry that I won't be able to stop doing something I don't want to in a sexual situation.
59. I wish sex were less a part of my life.
60. I feel good about starting sexual activity.
61. I feel okay about telling my partner what I want in a sexual situation.
62. I have punished myself for my sexual thoughts, feelings, and/or behaviors.
63. I feel good about my ability to satisfy my sexual partner.
64. I am proud of my body.
65. I am able to get what I want sexually when I want it

66. I am glad that feelings about sex have become a part of my life now.
67. I never feel bad about my sexual behaviors.
68. In a sexual situation, I am not sure what to do.
69. When I get dressed up, I feel good about the way I look.
70. I worry that things will get out of hand because I can't always tell what my partner wants in a sexual situation.
71. Other people have an easier time with their sex lives than I do.
72. I worry that some of my sexual fantasies are perverted.
73. I wish I could relax in sexual situations.
74. I am attractive enough.
75. My partner seems to get the wrong message about what I want sexually.
76. I never feel guilty about my sexual feelings.
77. In general, I feel my sexual experiences have given me a more positive view of myself.
78. I think I am good at giving sexual pleasure to my partner.
79. I would like to look a lot better.
80. I worry that I will be taken advantage of sexually.
81. From a moral point of view, my sexual feelings are acceptable to me.

## Appendix H: Sexting Behaviours

### SEXTING:

Definition: Sexting is the action of sending or receiving sexually explicit text, photograph, or video messages through cell phones or other electronic devices.

Have you ever sent or received a sext with your current romantic partner?

Yes

No

### Qualifier questions

1. I have sent my current romantic partner a nude or semi-nude picture through electronic means:  
Yes  
No
2. I have sent my current romantic partner a sexually suggestive text message:  
Yes  
No
3. My current romantic partner has sent me a nude or semi-nude picture through electronic means:  
Yes  
No
4. My current romantic partner has sent me a sexually suggestive text message:  
Yes  
No

[If participant answers yes to any of the above questions, the following drop-down questions will appear]

[Questions are rated on a 5-point scale, with 1 = Never, 2= Rarely, 3 = Sometimes (e.g., Monthly), 4= Very Often (e.g., Weekly), and 5 = Frequently (e.g., Daily); Participants will be told the following with each drop-down: Please use the rating scale next to the phrase to describe how frequently you take part in each sexting behaviour. Then select the number that corresponds to the accuracy of the statement. ]

1. a) I have sent a sexually suggestive photo or video of myself to my current romantic partner  
b) I have sent a sexual photo or video of myself in underwear or in lingerie to my current romantic partner  
c) I have sent a nude photo or video to my current romantic partner
2. I have sent a sexually suggestive text message from my current romantic partner
3. a) I have received a sexually suggestive photo or video of myself from my current romantic partner

- b) I have received a sexual photo or video from my current romantic partner in underwear or in lingerie
  - c) I have received a nude photo or video from my current romantic partner
4. I have received a sexually suggestive text message from my current romantic partner

## Appendix I: Sexual Self-Disclosure During Sexting Questionnaire

In a relationship, partners may communicate with each other about what they like and dislike about their sexual interactions. Think of your sexting experiences with your current romantic partner. For each question below, select the number that best describes how much you communicated to your partner about your sexual likes and dislikes **while sexting**.

How much have you told your partner about:

[All questions are rated on a 1 to 7 scale, where 1 = Not at all and 7 = Everything]

1. The way(s) you like to be kissed?
2. The way(s) you don't like being kissed?
3. The way(s) you like to be touched sexually?
4. The way(s) you don't like to be touched sexually?
5. The way(s) you like to have intercourse?
6. The way(s) you don't like having intercourse?
7. The way(s) you like receiving oral sex?
8. The way(s) you don't like receiving oral sex?
9. The way(s) you like giving oral sex?
10. The way(s) don't like giving oral sex?
11. What you like about the amount of variety in your sex life?
12. What you don't like about the amount of variety in your sex life?

**Appendix J: Level of Sexting Rewards and Level of Sexting Costs Items**

Think about the **rewards** that **you** have experienced **while sexting with your partner** in the last 3 months. How rewarding is sexting with your partner? (Circle a number)

**NOT AT ALL**

**EXTREMELY**

**REWARDING**

**REWARDING**

1    2    3    4    5    6    7    8    9

Think about the **costs** that **you** have experienced **while sexting with your partner** in the last 3 months. How costly is sexting with your partner? (Circle a number)

**NOT AT ALL**

**EXTREMELY**

**COSTLY**

**COSTLY**

1    2    3    4    5    6    7    8    9

## **Appendix K: Sexting Goals Measure (Modified survey of Sexual Goals Measure)**

As mentioned earlier, **sexting is the action of sending or receiving sexually explicit text, photograph, or video messages through cell phones or other electronic devices.**

Have you engaged in sexting with your current romantic partner in the past 6 months?

Yes

No

[If participants answered **yes** to the question above, they will be asked to complete the questionnaire below]

Rate the importance of the following ten reasons in influencing your decision to sext.

[Questions are rated on a 7 point scale where 7 = Extremely important, 6 = Very important, 5 = Important, 4 = Moderately Important, 3 = Somewhat important, 2 Slightly important, and 1 = Not at all important]

1. To pursue my own sexual pleasure
2. To please my own partner
3. To feel good about myself
4. To enhance intimacy in my relationship
5. To express love for my partner
6. To avoid conflict in my relationship
7. To prevent my partner from being upset
8. To prevent my partner from getting angry at me
9. To prevent my partner from losing interest in me
10. Because I felt obligated to engage in sexting

## Appendix L: Attitudes Towards Sexting

**Sexting** is the term commonly applied to sending or receiving sexually explicit text messages, sexually suggestive photos or videos (partially nude or nude photos or videos) *via cell phone or other electronic devices*.

Please answer the following statements keeping this definition in mind.

1. Sexting is just part of flirting.
2. There is no harm in sexting.
3. Sexting is fun.
4. Sexting is exciting.
5. I don't mind receiving sexts but I wouldn't send one.
6. I share the sexts I receive with my friends.
7. I share the sexts I sent with my friends.
8. Sexting is part of being in a relationship.
9. My romantic partners expect me to sex sexually racy texts.
10. I think that sexting may cause me problems in the future.
11. Sending sexually suggestive texts is risky.
12. My romantic partners expect me to send sexually racy photos or videos.
13. Sending sexually racy pictures leaves me vulnerable.
14. Sexting improves my relationship or potential relationship.
15. Sending sexually suggestive photos or videos is risky.
16. I have sent a sext and then regretted it.
17. Sexting is a regular part of romantic relationships nowadays.
18. You have to be careful about sexting.
19. Sexting is no big deal.



## Appendix M: Demographics

1. Gender Identity: Check one

Female

Male

Transgender M-F

Transgender F-M

2. Age: [Drop down]

3. Racial/Ethnic Identity: Check one

Aboriginal/First Nations

African Canadian/Black

Asian

Caucasian

Hispanic

Other

4. Sexual Orientation: Check one

Straight

Gay/Lesbian

Bisexual

Unsure

Other

5. Do you currently or have you ever owned a cell phone? Check one

Yes

No

6. Relationship status: Check one

In a relationship

Not in a relationship

7. If you are in a relationship, are you: Check one

Dating

Married

8. Current partner's gender identity: Check one

Female

Male

Transgender M-F

Transgender F-M

9. How long have you been with your current romantic partner? Check one

Less than 1 year

1-3 years

4-6 years  
7-9 years  
10 or more years

10. Are you sexually active with your current romantic partner? (By “sexually active,” we mean have you engaged in some type of sexual activity at least on occasion with your current partner.)

Check one

Yes

No

11. How close do you feel toward your current romantic partner?

Not at all

A little bit

Somewhat

A lot

12. How much do you want your current relationship to last?

Not at all

A little bit

Somewhat

A lot

13. How much do you think he or she cares about you?

Not at all

A little bit

Somewhat

A lot

14. Do you live with your romantic partner? Check one

Yes

No

15. How comfortable do you feel expressing your sexual desires, likes, and dislikes to your current romantic partner face-to-face.

Not at all

A little bit

Somewhat

A lot

16. I feel that my current romantic partner is judging me when I express my sexual desires, likes, and dislikes to my current romantic partner face-to-face.

Not at all

A little bit

Somewhat

A lot

17. How comfortable do you feel expressing your sexual desires, likes, and dislikes to your current romantic partner through technology (e.g., email, text-messages, photos, video, etc.).

Not at all

A little bit

Somewhat

A lot

Not applicable

18. I feel that my current romantic partner is judging me when I express my sexual desires, likes, and dislikes to my current romantic partner through technology (e.g., email, text-messages, photos, video, etc.).

Not at all

A little bit

Somewhat

A lot

Not applicable

19. If you do not live with your romantic partner, about how far away from your residence does your romantic partner? Numerical values only (e.g., 0.5, 1, 20, 100, etc.)

Fill in: \_\_\_\_\_ Kilometers

## Appendix N: Debriefing Form



### Sexting in Intimate Romantic Relationships

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Thank you for your participation in this study! Your participation is sincerely appreciated, and we hope that you have found your experience to be interesting. As noted in the consent form provided to you at the beginning of the survey, this study is designed to examine the use of technology as a means of communicating with intimate romantic partners. More specifically, we are examining the student population's sexual self-esteem in relation to reports of self-disclosure during sexting with a current intimate romantic partner. Our main research question is: Do individuals who report greater levels of self-disclosure during sexting report higher levels of sexual self-esteem? It is hypothesized that those who report high frequencies of sexting with their current partner will report higher levels of sexual self-disclosure and, therefore, higher levels of sexual self-esteem.

The results of this study will be posted on our reproductive psychology research team website ([www.reproductivepsy.usask.ca](http://www.reproductivepsy.usask.ca)) at the end of the study (April, 2016). You may also choose to contact the researchers by email for a summary of the results.

Any questions regarding your rights as a participant may be addressed to the Research Ethics Office ([ethics.office@usask.ca](mailto:ethics.office@usask.ca); 966-2084). Out of town participants may call collect. Should you have any questions about the subject material or have become upset as a result of participating in this study, you may contact the University of Saskatchewan's Student Health and Counselling Services (966-5768).

**Researchers:** Kirstian Gibson ([kig579@mail.usask.ca](mailto:kig579@mail.usask.ca); 306-966-6159), Applied Social Psychology Masters students, supervised by Dr. Karen Lawson ([karen.lawson@usask.ca](mailto:karen.lawson@usask.ca); 306-966-2524), Department of Psychology, University of Saskatchewan.

## **Appendix O: Participant Pool Advertisement**

**Study Title:** Sexting in Intimate Romantic Relationships

**Researchers:** Kirstian Gibson (kig579@mail.usask.ca) Applied Social Psychology Masters student, supervised by Dr. Karen Lawson (karen.lawson@usask.ca; 306-966-2524), Department of Psychology, University of Saskatchewan.

This is a research study designed to examine the use of technology as a means of communication between intimate romantic partners. If you would like to participate, you will be asked to complete a 20-minute web-based survey examining past and present use of technology you're your current romantic partner. Please note: this study includes questions of explicit sexual nature.

In exchange for participating you will receive 1 credit towards your Psychology 110 grade.

### **PAWS Portal Advertisement**

**Study Title:** Sexting in Intimate Romantic Relationships

**Researchers:** Kirstian Gibson (kig579@mail.usask.ca) Applied Social Psychology Masters student, supervised by Dr. Karen Lawson (karen.lawson@usask.ca; 306-966-2524), Department of Psychology, University of Saskatchewan.

This is a research study designed to examine the use of technology as a means of communication between intimate romantic partners. If you would like to participate, you will be asked to complete a 20-minute web-based survey examining past and present use of technology you're your current romantic partner. Please note: this study includes questions of explicit sexual nature.