

HETEROSEXUAL DATERS' SEXUAL INITIATION BEHAVIOURS: USE OF THE THEORY OF PLANNED BEHAVIOUR

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ABSTRACT

It is important to understand factors that influence men and women's sexual initiations within dating relationships because these behaviours are the starting point in a chain of behaviours which are important to relationship and sexual satisfaction (Sprecher & McKinney, 1993). However, the majority of research on sexual initiation was conducted more than 20 years ago and is not grounded within a theoretical framework. Therefore, the goals of this dissertation were to: investigate the contemporary sexual script for sexual initiations; use the Theory of Planned Behaviour (TPB) (Ajzen, 1992; Ajzen & Madden, 1986) to examine factors associated with the frequency of male and female daters' sexual initiation behaviours; and evaluate the relationship between these behaviours and sexual outcomes (i.e., sexual satisfaction). Male and female daters in short-term, heterosexual dating relationships completed an online survey that assessed aspects of their sexual and overall relationship with their current dating partner. The TPB was supported in that, as predicted, the more favourable the perceived social norms and attitudes toward initiating sexual activity, and the greater perceived behavioural control over initiating, the stronger an individuals' intention was to initiate. In turn, stronger sexual initiation intentions were associated with more frequent initiation behaviours. That is, sexual initiation intentions mediated the relationship between the predictors and sexual initiation behaviours. Furthermore, the results showed that the current sexual script for initiation behaviours continues to be characterized by the Traditional Sexual Script because, compared to the women, the men initiated more frequently, had stronger sexual initiation intentions, and perceived

more positive social norms regarding initiation. However, the men and women did not differ in their attitudes towards initiating or perceptions of their competence to initiate sexual activities with their partners. Finally, more frequent sexual initiations by an individual or by his or her partner was associated with greater sexual satisfaction for both men and women. The implications of these findings for educational purposes (e.g., normalizing daters' anxieties regarding navigating the sexual script) and clinical interventions (e.g., assessing and targeting psychosocial cognitions regarding initiating to increase strength of initiation intentions) as well as directions for future research were discussed.

CONTRIBUTIONS OF AUTHORS

This dissertation includes a manuscript co-authored by Dr. E. Sandra Byers and myself. I am the first author and Dr. Byers is the second author of this manuscript which is currently being prepared for submission. The manuscript resulted from an on-line survey that was created, conducted, analyzed, and written by me. Dr. Sandra Byers served in an advisory capacity during the formulation of research questions, the development of the questionnaires, and the statistical analysis. Furthermore, she provided editorial assistance during the writing of the final manuscript.

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CHAPTER 1

INTRODUCTION

There has been considerable research interest in the frequency of sexual intercourse within heterosexual couples (Baumeister, Catanese, & Vohs, 2001; Brody & Costa, 2009; McNulty & Fisher, 2008; Schneidewind-Skibbe, Hayes, Koochaki, Meyer & Dennerstein, 2008). However, sexual intercourse is merely the last in a long list of steps which must take place in order for sexual activity to occur. Indeed, engaging in any sexual activity must begin with an intention to initiate sexual activity, followed by an actual initiation, and a positive response from the initiator's partner. At each step along this chain of behaviours, a number of intrapersonal, interpersonal and situational factors interact to result in (or not result in) sexual activity (Byers & Heinlein, 1989). Indeed, there may be times when a partner attempts to initiate sexual activities but the desired activities do not occur. Further, not all sexual activity includes sexual intercourse. Therefore, merely examining the frequency of sexual intercourse likely underestimates sexual activities and interest among partners. For instance, O'Sullivan and Byers (1992) found that although their sample of daters reported initiating sexual activity on 68% of dates they went on, sexual activity occurred on 80% of these occasions, and 4% of these did not include intercourse. These findings underscore the importance of examining the frequency of sexual initiations of a range of sexual activities to fully understand sexual interactions.

Sexual initiations are expressions from either partner of an interest or desire for sexual activity (Gossmann, Julien, Mathieu, & Chartrand, 2003; O'Sullivan & Byers, 1992). It is important to note that an initiation is independent of the outcome behaviour;

that is, whether sexual behaviour results from the initiation. Sexual initiations are linked to partnered sexual activities and partnered sexual activities are fundamental to partners' sexual and relationship satisfaction and relationship stability (Blumstein & Schwartz, 1983; Brody & Costa, 2009; McNulty & Fisher, 2008; Purnine & Carey, 1997).

However, they are also meaningful units of behaviour in and of themselves. For example, more frequent sexual initiations have been shown to be related to higher sexual and relationship satisfaction (Blumstein & Schwartz, 1983; Byers & Heinlein, 1989). However, these studies used married and cohabitating partners whose sexual scripts differ from those of dating partners (Metts & Spitzberg, 1996). Thus, it is not clear whether these results are generalizable to dating partners.

It is particularly important to understand sexual initiations in dating relationships. Dating couples are working to establish an idiosyncratic sexual script; thus, these relationships are characterized by greater fluctuation and exploration of sexual behaviours than are long-term relationships (Gagnon & Simon, 1987; Metts & Spitzberg, 1996). That is, the initiation of sexual activity may be particularly important to daters as they begin to formulate their sex scripts and learn about each other's likes and dislikes. Unfortunately, there has been little empirical research that has specifically examined sexual initiations within dating relationships and no studies that have assessed intentions to initiate sexual activities among short or long-term couples. Despite these omissions, a few studies have examined the frequency of initiations in long-term relationships (Blumstein & Schwartz, 1983; Byers & Heinlein, 1989; Gossmann et al., 2003; Sacomori & Cardoso, 2010); one study has investigated the frequency of sexual initiations among daters (O'Sullivan & Byers, 1992).

O'Sullivan and Byers (1992) had 101 university students record the frequency with which they initiated sexual activity while on dates over the course of the two-week study period (see Byers & Heinlein, 1989 for similar study of individuals in long-term relationships). The researchers found that participants reported initiating sexual activities on average 1.5 times per week. Unfortunately, the participants varied in their relationship status. That is, some of the participants went on dates with their committed romantic partner, while others went on dates with casual partners. Further, although participants were asked to indicate their relationship with their date (steady date or casual date) after the first sexual initiation during that week, they were not instructed to do so for subsequent initiations over the course of the study period. Thus, it may be that some students went on dates with multiple people over the course of the study period. Alternatively, some (12) participants did not go on any dates. Research suggests there are qualitative differences between casual versus established couples (Rosen & Beck, 1988; Zilbergeld & Zilbergeld, 2004). Thus, there are likely differences in the frequency of sexual initiations within different relationship types. For example, daters in committed relationships may have more experience, more frequent opportunity, and perhaps greater comfort initiating sexual activities with their partner than those in more casual dating relationships.

Other than the O'Sullivan and Byers (1992) study, the majority of research on sexual initiation has focused on categorizing initiation behaviours. For example, Jesser (1978) and McCormick and colleagues (LaPlante, McCormick, & Brannigan, 1980; McCormick, 1979; McCormick, Brannigan & LaPlante, 1984) had unmarried college students complete questionnaires describing the initiation tactics they themselves had

used in the past, their dating partners had used on them in the past, or that they would use in hypothetical dating situations. In a similar investigation, Perper and Weis (1987) had college women in the U.S. and Canada write essays describing tactics they would use to 'seduce' men into engaging in sexual activities with them. These studies were aimed primarily at creating taxonomies within which to place the initiation behaviours of single young adults. For example, McCormick and colleagues (1984) grouped male and female daters' reports of the initiation behaviours they had used or experienced into two distinct categories: direct initiation behaviours and indirect initiation behaviours. Direct initiation behaviours consisted of clear sexual signals that are straight forward and unambiguous, such as asking one's partner if they would like to engage in sexual activity. Indirect initiation behaviours consisted of intentionally unclear signals that allow the initiator to attempt to initiate without risking outright rejection. These included talking indirectly about sex or lowering the tone of voice and increasing eye contact. Because much of sexual communication between intimate partners is nonverbal (Cupach & Metts, 1991), Hickman and Muehlenhard (1999) combined a verbal-nonverbal continuum with the direct-indirect continuum to produce a four quadrant model that allowed for complex analysis of the sexual initiation signals sent by partners (e.g., non-verbal indirect messages, verbal direct messages etc.). Perper and Weis (1987) classified participants' initiation behaviours as 'proceptive' and described 22 separate themes as an escalating set of verbal and nonverbal signals that women reported using to communicate sexual interest to a man. Finally, Dworkin and O'Sullivan (2005) conducted in-depth interviews with 32 college-aged men regarding their current and desired sexual initiation patterns. The authors found that although many men reported

desiring egalitarian patterns of initiation, most men currently practiced male-dominated patterns of sexual initiation (e.g., sexual initiations within the couple were described as mostly or solely self-initiated by the male partner).

Unfortunately, these studies included a number of methodological flaws. First, many of these studies relied on hypothetical situations in which participants were asked to indicate the probable gender of a person who would use various initiation tactics, or how they would express sexual interest with a fictitious date by imagining themselves in sexual initiation situations (LaPlante et al., 1980; McCormick, 1979; McCormick et al., 1984; Perper & Weis, 1987). Thus, these results confound self and other reports as well as real-life and fantasy or hypothetical initiation strategies. This makes generalization of these findings to real-life initiation behaviours uncertain.

Second, many of the studies failed to contextualize their research questions (Greer & Buss, 1994; LaPlante et al., 1980; McCormick et al., 1984; O'Sullivan & Byers, 1992). That is, researchers did not situate questions within specific types of sexual encounters, such as those occurring with current dating partners, past dating partners, casual sexual partners, one night stands or other potential contexts. As a result, participants may have differed with respect to the type of relationship they had in mind or the way in which they interpreted the questions. This is problematic because there are differences in the manner, frequency and willingness to initiate new sexual acts with a partner depending on the type of relationship (Schnarch, 1997). Third, many of these researchers failed to include information about participants' current relationship status or simply referred to participants as 'unmarried' (e.g., Greer & Buss, 1994; Jesser, 1978; LaPlante et al., 1980; McCormick, 1979; McCormick et al., 1984). Yet participants who

were in relationships at the time of their participation may have had more recent opportunity and experience with initiating sexual encounters compared to those who were single or in a non-committed sexual relationship at the time of testing.

Fourth, many studies only investigated initiations of sexual intercourse and not initiations of a range of sexual behaviours (Byers & Heinlein, 1989; Jessor, 1978; LaPlante et al., 1980; McCormick, 1979; McCormick et al., 1984; Perper & Weis, 1987). However, intercourse is just one of many ways in which daters are sexually active and intimate with their partners. Further, engaging in a range of sexual behaviours, not just sexual intercourse, contributes to partners' sexual and relationship satisfaction (Pedersen & Blekesaune, 2003; Purnine & Carey, 1997).

Fifth, some of these studies used participants who had no coital experience even though they were investigating initiation of sexual intercourse (e.g., Greer & Buss, 1994; McCormick, 1979; McCormick et al., 1984; Perper & Weis, 1987). Research suggests that the initiation of new sexual behaviours into ongoing heterosexual dating relationships can be a difficult, delicate matter that may take much time, patience and effort (Humphreys & Newby, 2007). Furthermore, intentions for behaviours that people do not have considerable experience enacting are weaker than are intentions for behaviours that they are experienced in performing (Sheeran & Abraham, 2003).

Additionally, many of these studies did not clearly define their target behaviours. For example, Greer and Buss (1994) asked participants to respond regarding their self-reported tactics to promote "sexual encounters" without operationally defining either "tactics" or "sexual encounters". Similarly, Perper and Weis (1987) asked participants how they would influence a person to have sex with them when up to this point in the

hypothetical relationship there had not been “any kind of sex between the two of you”. However, they did not define sex and research has shown that there is great variability in the activities and behaviours that people consider to constitute ‘sex’ (Byers, Henderson & Hobson, 2009; Randall & Byers, 2003; Sanders & Reinisch, 1999).

Finally, and perhaps most importantly, the majority of these initiation studies were conducted more than 20 years ago. Research suggests that sexual scripts—that is the scripted sexual behaviours that couples engage in during sexual interactions—have changed in the recent past. Sexual scripts describe expectations about how individuals are supposed to interpret and behave in sexual situations. That is, they dictate the who, what, when, where, and how of sexual interactions (Simon & Gagnon, 1973). These scripts may have shifted to include more instrumental, active, sexual pleasure-seeking roles for women (Anderson & Aymami, 1993; Hogben, Byrne, & Hamburger, 1995).

In addition to these methodological flaws, the majority of the research on sexual initiations has not been grounded within a theoretical framework. Christopher and Sprecher (2000) called for researchers to conduct more theoretically-driven research that examines the impact of social, individual and relationship factors on various aspects of the sexual relationship. In the absence of a theoretical framework, past studies have failed to provide a comprehensive understanding of factors underlying sexual initiation behaviours in dating relationships. Therefore, the present investigation used the Theory of Planned Behaviour (TPB) (Ajzen, 1991; Ajzen & Madden, 1986) to examine factors associated with the frequency of male and female daters’ sexual initiation behaviours. In the following sections, the Theory of Planned Behaviour will be reviewed.

Theoretical Framework

Theories of behavioural prediction provide a framework through which to identify and explain the determinants of observed behaviours (Fishbein, 2007). Although there are a number of different theories of behavioural prediction, they all include social, interpersonal, and intrapersonal factors. Thus, these models are particularly useful for the explanation of interdyadic behaviours (i.e., those that occur within dyads) such as sexual initiation behaviours.

Theory of Planned Behaviour. The Theory of Planned Behavior (TPB) is one such behavioural prediction theory. According to the TPB (Ajzen, 1991), a *behaviour* is most likely to occur when a person has a strong *intention* to engage in the behaviour. However, intentions and behaviours are not perfectly correlated. For instance, in some situations intentions do not lead to behaviours and, in others, intentions do not precede behaviours. *Intentions* are indications of a person's preparedness to perform a given behaviour and are considered to be an immediate antecedent of behaviour. Intentions may vary in strength: those that are stronger are more predictive of future behaviour than those that are weaker (Ajzen, 1991). According to the TPB, intentions are a result of perceived social norms, attitudes, and perceived behavioural control. Perceived social norms refer to perceived social pressure to engage in or refrain from engaging in the target behaviour. These norms are based on perceptions of whether important others would support enacting the target behaviour. Attitudes are conceived of as the summative evaluations of the potential outcomes (positive and negative) of performing a behaviour (i.e., evaluations of the expected outcomes of the behaviour). Perceived behavioural control refers to a person's perceptions of their ability to perform a given

behaviour; that is, in Bandura's (1982; 1986) terms, self-efficacy. Perceived behavioural control is based on one's beliefs about the presence of personal characteristics that may facilitate or impede performance of the behaviour (i.e., confidence in one's ability to perform the behaviour). The TPB posits that the more favourable the subjective norms and attitudes towards a behaviour, and the greater the perceived behavioural control over a behaviour, the stronger an individual's intention to perform that behaviour will be. In turn, stronger intentions are more likely to lead to behavioural enactment. That is, intentions are perceived to mediate the relationship between perceived social norms, attitudes and perceived behavioural control and behaviours (see Figure 1).

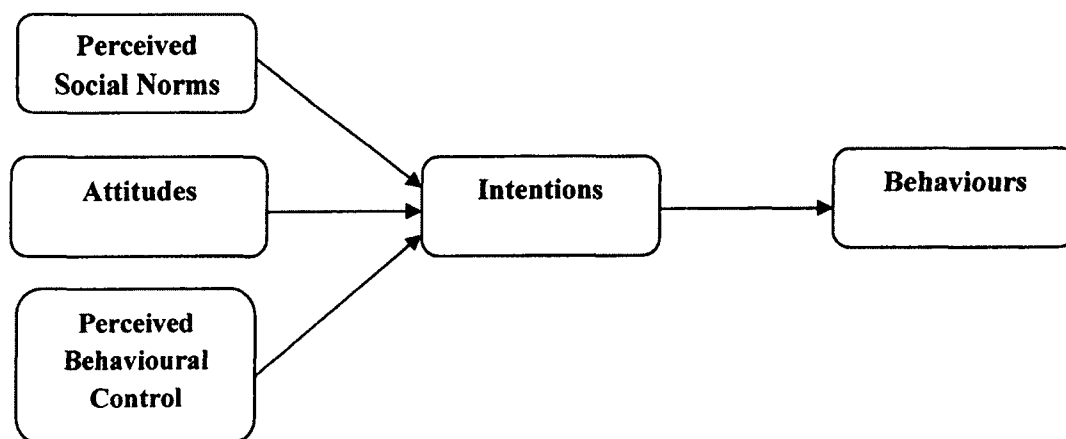


Figure 1. The Theory of Planned Behaviour.

Other behavioural prediction theories. Two other leading theories of prediction of social behaviours are the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980), and the Integrated Model of Behavioural Intervention (IMBI) (Fishbein, 2000). The Theory of Reasoned Action is a precursor to the TPB. It contains two of the components of the TPB, perceived social norms and attitudes, but not perceived

behavioural control. Thus, the TRA posits that behavioural enactment is determined by the strength of behavioural intention which is a function of an individual's attitudes toward, and perceived social norms regarding, the target behaviour (Ajzen & Fishbein, 1980). Although there is considerable empirical evidence for the role of attitude and perceived social norms in determining the strength of behavioural intentions and behavioural enactment (Armitage & Conner, 2001), evidence suggests the TPB is superior to the TRA in the prediction of behaviours that are not completely under volitional control (Hunt & Gross, 2009; Scott, Eves, Hoppe & French, 2010). As sexual initiations occur within interactions between partners and are therefore not completely under volitional control, the TPB was deemed to be a more appropriate theoretical framework through which to analyze these behaviours.

Another model of behavioural prediction is the Integrative Model of Behaviour Prediction (IMBP). The IMBP is an elaborate model that contains the relationships proposed by the TPB but also includes a number of other factors that may affect behaviour, intentions, and the determinants of intentions. According to the IMBP, a behaviour is likely to occur if an individual has a strong intention to perform the behaviour, has the necessary skills and abilities to perform the behaviour, and there are no environmental constraints to prevent the performance of the behaviour. Similar to the TPB, the model posits that the strength of intentions are functions of perceived social norms, attitudes, and perceived behavioural control (i.e., self-efficacy). The model also recognizes that these determinants of intentions are functions of underlying beliefs about the outcomes of performing the target behaviour, the normative proscriptions of specific referents, and specific barriers to behavioural performance. Finally, the model posits that

traditional demographic, personality, attitudinal and other individual difference variables (e.g., sensation seeking) play an indirect role in influencing behaviour in that they affect the belief structures regarding enactment of target behaviours (Fishbein, 2003). Given that there was not previous research using any model of behavioural prediction to investigate sexual initiation behaviours, a more parsimonious test of the proposed relationships between factors associated with sexual initiation behaviours was deemed a more appropriate means of investigation. Further, there exist no clear guidelines regarding how to appropriately construct a measure for some of the components of the IMPB. However, Ajzen (2002) has written extensively regarding the manner in which to devise an appropriate measure to test the theoretical propositions of the TPB.

The utility of the TPB. For the most part, the TPB has been used to examine a range of non-sexual health-related behaviours such as food consumption on a low fat diet (Armitage & Conner, 2002), registration in physical activity programs (Atsalakis & Sleaf, 1996), smoking cessation (Babrow, Black, & Tiffany, 1990), and dieting behaviour (Connor, Martin, Silverdale & Grogan, 1996). That is, as predicted, these studies found for all of these behaviours that the determinants of intentions significantly predicted the strength of behavioural intention. In turn, the strength of behavioural intentions significantly predicted behavioural enactment. Several meta-analytic reviews have also concluded that there is strong support for the predictive utility of the theory (e.g., Armitage & Conner, 2001; Blue, 1995; Conner & Armitage, 1998; Conner & Sparks, 1996; Godin, 1993; Godin & Kok, 1996; Sparks, 1994). Indeed, these reviews have found the TPB accounted for up to 39% of the variance in intentions and 27% of the variance in behaviours. Because of its well established validity, clearly-defined

constructs and its theoretical underpinnings (Armitage & Conner, 2001), the TPB is an appropriate theory with which to evaluate sexual behaviours.

A number of studies have applied the TPB to sexual behaviours. There is evidence for the utility and validity of the model with regard to the prediction of sexual intentions and behaviours in young adults for acts such as using condoms and contraceptives during sex, engaging in intercourse, and engaging in risky sexual behaviours (Basen-Enquist & Parcel, 1992; Beadnell, Wilsdon, Wells, Gillmore, Hoppe & Morison, 2007; Bryan, Fisher & Fisher, 2002; Cha, Doswell, Kim, Patrick & Charron-Prochownik, 2007; Chen & Fishbein, 1993; Molla, Åstrøm & Brehane, 2007; Munoz-Silva, Sanchez-Garcia, Nunes & Martins, 2007; Myklestad & Rise, 2008; Rannie & Craig, 1997; Villarruel, Jemmott, Jemmott & Ronis, 2004; Wang, Cheng, & Chou, 2007). Within these studies, perceived social norms, attitudes and perceived behavioural control explained between 17% and 38% of the variance in young adults' intentions; the strength of intentions accounted for between 5% and 25% of the variance in their behaviours. Unfortunately, the samples within each study varied in dating status in that they included single individuals, short-term daters, and long-term daters. This makes it impossible to determine whether these results apply specifically to short-term dating relationships. Further, a review of the literature revealed no studies that have utilized the TPB to explain sexual initiation behaviours.

The Present Study

The current dissertation greatly extends the limited research on sexual initiation behaviours in that it provides a contemporary, theory-driven investigation of factors that underlie the frequency of sexual initiation behaviours. Guided by the TPB, the present

study explored the sexual initiation behaviours of men and women in short-term heterosexual dating relationships. The study improved upon past research in a number of ways. First, to improve ecological validity, the study utilized research questions that pertained to the real-life sexual interactions of participants with their current heterosexual dating partner. Second, all participants were in short-term dating relationships of between 3 to 18 months in duration. Three months was chosen as the lower limit to ensure that participants had had an opportunity to engage in a number of genitally-focused sexual behaviours with their current partners. Eighteen months was chosen as the upper limit to ensure that participants would still be within the 'passionate love' phase of their relationships and would not have transitioned to the 'companionate love' phase which typically characterizes relationships longer than 18 months in duration (Hatfield & Walster, 1978). Third, the study assessed initiation of a range of genitally-focused sexual behaviours (e.g., genital fondling, oral-genital sex) --- not just penile-vaginal intercourse. Fourth, only participants who had engaged in one or more of the target behaviours (i.e., genitally-focused behaviours) with their current partner were included in the study. Finally, all terms were clearly defined for participants to ensure that responses truly referred to target behaviours and situations.

Specifically, an online survey (see Appendix B) was completed by heterosexual daters to examine factors associated with the frequency of male and female daters' sexual initiation behaviours. One manuscript was generated from this study. This manuscript, *Heterosexual Daters' Sexual Initiation Behaviours: A Test of the Theory of Planned Behaviour*, is presented in Chapter 2. This study evaluated the utility of the TPB in explaining the frequency with which men and women daters initiate sexual

activities with their partners. Further, it examined the contemporary sexual script for sexual initiation behaviours, as well as the relationship between these behaviours and sexual satisfaction. Finally, the manuscript explored gender differences in each of the components of the model and relationships between the components of the model.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behaviour and Human Decision Processes*, 50(2), 179-211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22(5), 453-474. doi:10.1016/0022-1031(86)90045-4
- Anderson, P. B., & Aymami, R. (1993). Reports of female initiation of sexual contact: Male and female differences. *Archives of Sexual Behavior*, 22(4), 335-343. doi:10.1007/BF01542122
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499. doi:10.1348/014466601164939
- Armitage, C. J., & Conner, M. (2002). Reducing fat intake: Interventions based on the theory of planned behaviour. In D. Rutter, L. Quine, D. Rutter & L. Quine (Eds.), *Changing health behaviour: Intervention and research with social cognition models*. (pp. 87-104). Maidenhead, BRK England: Open University Press.
- Armitage, C. J., & Conner, M. (2010). Test of a brief theory of planned behavior-based intervention to promote adolescent safe sex intentions. *British Journal of Psychology*, 101(1), 155-172. doi:10.1348/000712609X431728
- Atsalakis, M., & Sleep, M. (1996). Registration of children in a physical activity program: An application of the theory of planned behavior. *Pediatric Exercise Science*, 8, 166-176. Retrieved from <http://hk.humankinetics.com/eJournalMedia/pdfs/12342.pdf>

- Babrow, A. S., Black, D. R., & Tiffany, S. T. (1990). Beliefs, attitudes, intentions, and a smoking-cessation program: A planned behavior analysis of communication campaign development. *Health Communication, 2*(3), 145-163.
doi:10.1207/s15327027hc0203_2
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122-147. doi:10.1037/0003-066X.37.2.122
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social & Clinical Psychology, 4*(3), 359-373. Retrieved from http://www.guilford.com/cgi-bin/cartscript.cgi?page=pr/jnsc.htm&dir=periodicals/per_psych&cart_id=
- Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review, 5*(3), 242-273.
doi:10.1207/S15327957PSPR0503_5
- Basen-Engquist, K., & Parcel, G. S. (1992). Attitudes, norms, and self-efficacy: A model of adolescents' HIV-related sexual risk behavior. *Health Education Quarterly, 19*(2), 263-277. Retrieved from <http://www.uk.sagepub.com/journalsProdDesc.nav?prodId=Journal200851>
- Beadnell, B., Wilsdon, A., Wells, E. A., Gillmore, M. R., Hoppe, M., & Morison, D. M. (2007). Intrapersonal and interpersonal factors influencing adolescents' decisions about having sex: A test of sufficiency of the theory of planned behavior. *Journal of Applied Social Psychology, 37*(12), 2840-2876. doi:10.1111/j.1559-1816.2007.00285.x

- Blue, C. L. (1995). The predictive capacity of the theory of reasoned action and the theory of planned behavior in exercise research: An integrated literature review. *Research in Nursing & Health, 18*(2), 105-121. doi:10.1002/nur.4770180205
- Blumstein, P., & Schwartz, P. (1983). *American couples: Money, work, sex*. New York: William Morrow.
- Brody, S., & Costa, R. M. (2009). Satisfaction (sexual, life, relationship, and mental health) is associated directly with penile and vaginal intercourse, but inversely with other sexual behavior frequencies. *Journal of Sexual Medicine, 6*(7), 1947-1954. doi:10.1111/j.1743-6109.2009.01303.x
- Bryan, A., Fisher, J. D., & Fisher, W. A. (2002). Tests of the mediational role of preparatory safer sexual behaviour in the context of the theory of planned behaviour. *Health Psychology, 21*(1), 71-80. doi:10.1037/0278-6133.21.1.71
- Byers, E. S., & Heinlein, L. (1989). Predicting initiations and refusals of sexual activities in married and cohabiting heterosexual couples. *Journal of Sex Research, 26*(2), 210-231. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Byers, E.S., Henderson, J., & Hobson, K. (2009). University students' definitions of sexual abstinence and having sex. *Archives of Sexual Behavior, 38* (5), 665-674. doi. 10.1007/s10508-007-9289-6
- Cha, E. S., Doswell, W. M., Kim, K. H., Patrick, T. E., & Charron-Prochownik, D. (2007). Evaluating the theory of planned behavior to explain intention to engage in premarital sex amongst korean college students: A questionnaire survey.

International Journal of Nursing Studies, 44(7), 1147-1157.

doi:10.1016/j.ijnurstu.2006.04.015

Chan, D. K., & Fishbein, M. (1993). Determinants of college women's intentions to tell their partners to use condoms. *Journal of Applied Social Psychology*, 23(18), 1455-1470. doi:10.1111/j.1559-1816.1993.tb01043.x

Christopher, F. S., & Sprecher, S. (2000). Sexuality in marriage, dating, and other relationships: A decade review. *Journal of Marriage & Family*, 62(4), 999-1017. doi:10.1111/j.1741-3737.2000.00999.x

Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology*, 28(15), 1429-1464. doi:10.1111/j.1559-1816.1998.tb01685.x

Conner, M., Martin, E., Silverdale, N., & Grogan, S. (1996). Dieting in adolescence: An application of the theory of planned behaviour. *British Journal of Health Psychology*, 1(4), 315-325. Retrieved from <http://www.bpsjournals.co.uk/journals/bjhp/>

Conner, M., & Sparks, P. (1996). The theory of planned behaviour and health behaviours. In M. Conner, P. Norman, M. Conner & P. Norman (Eds.), *Predicting health behaviour: Research and practice with social cognition models*. (pp. 121-162). Maidenhead, BRK England: Open University Press.

Cupach, W. R., & Metts, S. (1991). Sexuality and communication in close relationships. In K. McKinney, S. Sprecher, K. McKinney & S. Sprecher (Eds.), *Sexuality in close relationships*. (pp. 93-110). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Dworkin, S. L., & O'Sullivan, L. (2005). Actual versus desired initiation patterns among a sample of college men: Tapping disjunctures within traditional male sexual scripts. *Journal of Sex Research, 42*(2), 150-158.
doi: 10.1080/00224490509552268
- Gagnon, J. H., & Simon, W. (1987). The sexual scripting of oral genital contacts. *Archives of Sexual Behavior, 16*(1), 1-25. doi:10.1007/BF01541838
- Godin, G. (1993). The theories of reasoned action and planned behavior: Overview of findings, emerging research problems and usefulness for exercise promotion. *Journal of Applied Sport Psychology, 5*(2), 141-157.
doi:10.1080/10413209308411311
- Godin, G., & Kok, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviours. *American Journal of Health Promotion, 11*(2), 87-98. Retrieved from <http://www.healthpromotionjournal.com/>
- Gross, A. M., & Hunt, H.R. (2009). Prediction of exercise in patients across various stages of bariatric surgery: a comparison of the merits of the theory of reasoned action versus the theory of planned behaviour. *Behavior Modification, 33*(6), 795-817,
- Gossmann, I., Julien, D., Mathieu, M., & Chartrand, E. (2003). Determinants of sex initiation frequencies and sexual satisfaction in long-term couples' relationships. *Canadian Journal of Human Sexuality, 12*(3), 169-181. Retrieved from <http://www.sieccan.org/cjhs.html>

- Greer, A. E., & Buss, D. M. (1994). Tactics for promoting sexual encounters. *Journal of Sex Research*, 31(3), 185-201. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Hatfield, E., & Walster, G.W. (1978). *A new look at love*. Reading, MA: Addison-Wesley.
- Hickman, S. E., & Muehlenhard, C. L. (1999). 'By the semi-mystical appearance of a condom': How young women and men communicate sexual consent in heterosexual situations. *Journal of Sex Research*, 36(3), 258-272. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Hogben, M., Byrne, D., & Hamburger, M. E. (1995). Coercive heterosexual sexuality in dating relationships of college students: Implications of differential male-female experiences. *Journal of Psychology & Human Sexuality*, 8(1), 69-78.
doi:10.1300/J056v08n01_05
- Humphreys, T., & Newby, J. (2007). Initiating new sexual behaviours in heterosexual relationships. *Canadian Journal of Human Sexuality*, 16(3), 77-88. Retrieved from <http://www.sieccan.org/cjhs.html>
- Hunt, H.R., & Gross, A.M. (2009). Prediction of exercise in patients across various stages of bariatric surgery: A comparison of the merits of the theory of reasoned action versus the theory of planned behaviour. *Behavior Modification*, 33, 795-817. doi: 10.1177/0145445509348055
- Jesser, C. J. (1978). Male responses to direct verbal sexual initiatives of females. *Journal of Sex Research*, 14(2), 118-128. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439

- LaPlante, M. N., McCormick, N., & Brannigan, G. G. (1980). Living the sexual script: College students' views of influence in sexual encounters. *Journal of Sex Research, 16*(4), 338-355. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- McCormick, N. B. (1979). Come-ons and put-offs: Unmarried students' strategies for having and avoiding sexual intercourse. *Psychology of Women Quarterly, 4*(2), 194-211. doi:10.1111/j.1471-6402.1979.tb00708.x
- McCormick, N. B., Brannigan, G. G., & LaPlante, M. N. (1984). Social desirability in the bedroom: Role of approval motivation in sexual relationships. *Sex Roles, 11*(3), 303-314. doi:10.1007/BF00287522
- McNulty, J. K., & Fisher, T. D. (2008). Gender differences in response to sexual expectancies and changes in sexual frequency: A short-term longitudinal study of sexual satisfaction in newly married couples. *Archives of Sexual Behavior, 37*(2), 229-240. doi:10.1007/s10508-007-9176-1
- Metts, S., & Spitzberg, B. H. (1996). Sexual communication in interpersonal contexts: A script-based approach. In B. R. Burleson, & B. R. Burleson (Eds.), *Communication yearbook 19*. (pp. 49-91). Thousand Oaks, CA US: Sage Publications, Inc.
- Molla, M., Åström, A. N., & Brehane, Y. (2007). Applicability of the theory of planned behavior to intended and self-reported condom use in a rural ethiopian population. *AIDS Care, 19*(3), 425-431. doi:10.1080/09540120600722692
- Muñoz-Silva, A., Sánchez-García, M., Nunes, C., & Martins, A. (2007). Gender differences in condom use prediction with theory of reasoned action and planned

- behaviour: The role of self-efficacy and control. *AIDS Care*, 19(9), 1177-1181.
doi:10.1080/09540120701402772
- Myklestad, I., & Rise, J. (2008). Predicting intentions to perform protective sexual behaviours among norwegian adolescents. *Sex Education*, 8(1), 107-124.
doi:10.1080/14681810701811886
- O'Sullivan, L. F., & Byers, E. S. (1992). College students' incorporation of initiator and restrictor roles in sexual dating interactions. *Journal of Sex Research*, 29(3), 435-446. doi:10.1111/j.1471-6402.1998.tb00149.x
- Pedersen W., & Blekesaune, M. (2003). Sexual satisfaction in young adulthood: Cohabitation, committed dating, or unattached life? *Acta Sociologica*, 46, 179.
DOI: 10.1177/00016993 030463001
- Perper, T., & Weis, D. L. (1987). Proceptive and rejective strategies of U.S. and Canadian college women. *Journal of Sex Research*, 23(4), 455-480. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Purnine, D. M., & Carey, M. P. (1997). Interpersonal communication and sexual adjustment: The roles of understanding and agreement. *Journal of Consulting and Clinical Psychology*, 65(6), 1017-1025. doi:10.1037/0022-006X.65.6.1017
- Randall, H. E., & Byers, E. S. (2003). What is sex? students' definitions of having sex, sexual partner, and unfaithful sexual behaviour. *Canadian Journal of Human Sexuality*, 12(2), 87-96. Retrieved from <http://www.sieccan.org/cjhs.html>
- Rannie, K., & Craig, D. M. (1997). Adolescent females' attitudes, subjective norms, perceived behavioral control and intentions to use latex condoms. *Public Health Nursing*, 14(1), 51-57. doi:10.1111/j.1525-1446.1997.tb00410.x

- Rosen, R. C., & Beck, J.C. (1988). *Patterns of sexual arousal: Psychophysiological processes and clinical applications*. New York, NY: Guilford Press.
- Sacomori, C., & Cardoso, F. L. (2010). Sexual initiative and intercourse behaviour during pregnancy among Brazilian women: A retrospective study. *Journal of Sex and Marital Therapy*, 36, 124-136. doi: 10.1080/00926230903554503
- Sanders, S. A., & Reinisch, J. M. (1999). Would you say you 'had sex' if ...? *JAMA: Journal of the American Medical Association*, 281(3), 275-277.
doi:10.1001/jama.281.3.275
- Schnarch, D. M. (1997). *Passionate marriage: Keeping love and intimacy alive in committed relationships*. New York, NY: Henry Holt & Co.
- Schneidewind-Skibbe, A., Hayes, R. D., Koochaki, P. E., Meyer, J., & Dennerstein, L. (2008). The frequency of sexual intercourse reported by women: A review of community-based studies and factors limiting their conclusions. *Journal of Sexual Medicine*, 5(2), 301-335. Retrieved from <http://www.wiley.com/bw/journal.asp?ref=1743-6095&site=1>
- Scott, E.J., Eves, F.F., Hoppe, R., & French, D.P. (2010). Dancing to a different tune: the predictive utility of the theory of planned behaviour when the behaviour is constrained. *Psychology of Sport and Exercise*, 11, 250-257.
doi:10.1016/j.psychsport.2009.09.007
- Sheeran, P., & Abraham, C. (2003). Mediator of moderators: Temporal stability of intention and the intention-behavior relation. *Personality and Social Psychology Bulletin*, 29(2), 205-215. doi:10.1177/0146167202239046

- Sparks, P. (1994). Food choice and health: Applying, assessing, and extending the theory of planned behaviour. In D. R. Rutter, L. Quine, D. R. Rutter & L. Quine (Eds.), *Social psychology and health: European perspectives*. (pp. 25-45). Brookfield, VT US: Avebury/Ashgate Publishing Co.
- Villarruel, A. M., Jemmott, J. B. I.,II, Jemmott, L. S., & Ronis, D. L. (2004). Predictors of sexual intercourse and condom use intentions among spanish-dominant latino youth: A test of the planned behavior theory. *Nursing Research*, 53(3), 172-181. doi:10.1097/00006199-200405000-00004
- Wang, R-H., Cheng, C-P., & Chou, F-H. (2007). A causal model of contraceptive intention and its gender comparison among Taiwanese sexually inexperienced adolescents. *Journal of Clinical Nursing*, 17 (7), 930-939. doi: 10.1111/j.1365-2702.2007.02088.x
- Zilbergeld, B., & Zilbergeld, G. (2004). *Better than ever; Love and sex at midlife*. Norwalk, CT US: Crown House Publishing Limited.

CHAPTER 2

HETEROSEXUAL DATERS' SEXUAL INITIATION BEHAVIOURS: USE OF THE THEORY OF PLANNED BEHAVIOUR

Sexual initiation has been defined as the first step by either partner to convey (verbally or non-verbally) an interest or desire for sexual activity when no such behaviours are currently in progress (Gossmann, Julien, Mathieu, & Chartrand, 2003; O'Sullivan & Byers, 1992). Initiation behaviours are of fundamental importance to couples' sexual interactions (Gossmann et al., 2003). They are linked to partnered sexual activities and partnered sexual activities are important to partners' sexual and relationship satisfaction (Blumstein & Schwartz, 1983; Purnine & Carey, 1997). Unfortunately, there has been little research examining sexual initiation behaviours and/or their contribution to sexual satisfaction. Indeed, a review of the literature revealed only four studies which have investigated the frequency of sexual initiations in daters (O'Sullivan & Byers, 1992) and/or in long-term couples (Blumstein & Schwartz, 1983; Byers & Heinlein, 1989; Gossmann et al., 2003).

One difficulty with the research that has been conducted is that the majority of these studies were conducted more than 20 years ago. Research has shown that sexual scripts, that is the scripted sexual behaviours couples engage in during sexual interactions, have changed on a number of dimensions over the past two decades (Anderson & Aymami, 1993; Hogben, Byrne, & Hamburger, 1995; Ortiz-Torres, Williams & Ehrhardt, 2003). Moreover, past initiation research has not been grounded within a theoretical framework and, thus, has failed to provide a comprehensive framework for understanding factors affecting sexual initiation behaviours. Thus, the

present study examined the current sexual script for sexual initiation behaviours by evaluating the frequency with which heterosexual daters initiate sexual activities with their partners and its relationship to sexual satisfaction. Additionally, we utilized the Theory of Planned Behaviour (TPB) (Ajzen, 1991; Ajzen & Madden, 1986) to examine factors associated with the frequency of male and female daters' sexual initiation behaviours. Finally, because there are gender differences in a number of sexual behaviours (Baumeister, Catanese, & Vohs, 2001), we also examined gender differences in the components of the TPB.

The Importance of Sexual Initiations to Sexual Satisfaction

Sexual initiations lead to sexual activity, and more frequent sexual activity is associated with greater sexual satisfaction (Brody & Costa, 2009; McNulty & Fisher, 2008; Santilla et al., 2008). Thus, it is likely that more frequent sexual initiations are also related to greater sexual satisfaction. Research has not examined this association directly within dating partners, although there has been some research with individuals in long-term relationships. Indeed, married and cohabitating individuals who report more frequent sexual initiations also report greater sexual satisfaction (Byers & Heinlein, 1989). However, a review of the literature revealed no research on the relationship between the frequency of sexual initiations and sexual satisfaction among daters. Moreover, the sexual scripts of long-term partners differ from those of short-term dating partners (Metts & Spitzberg, 1996). Thus, it is not clear whether these results are generalizable to dating partners who are just beginning to learn about each others' likes and dislikes. Further, some findings suggest differential relationships between sexual satisfaction and self- or partner-initiated sexual activities (Dworkin & O'Sullivan,

2005). Thus, it is important to determine the relationships between sexual satisfaction and the frequency of sexual initiations made by both the individual and his or her partner. We predicted that:

H1. More frequent sexual initiation behaviours by self and partner would be associated with greater sexual satisfaction for men and women.

The Theory of Planned Behaviour

The TPB grew out of the Theory of Reasoned Action (Ajzen & Fishbein, 1980). As described by Ajzen (1991), the TPB posits that there are three determinants of intention (perceived social norms, attitudes, perceived behavioural control) that result in the formation of behavioural intentions which, in turn, lead to the performance of target behaviours. That is, perceived social norms, attitudes, and perceived behavioural control affect behaviour through their influence on behavioural intentions, and behavioural intentions mediate the relationship between the three determinants of intentions and actual behaviours. Perceived social norms refer to an individual's perception of social pressure to perform or not to perform a target behaviour. This perception is derived from normative beliefs about what important others think about performance of a behaviour. Attitudes are an individual's overall evaluation of performing a target behaviour; that is, their summative evaluation of all of the outcomes of enacting the behaviour. Perceived behavioural control is the degree to which an individual believes that he or she has the resources and opportunities to perform a behaviour and is sometimes referred to as self-efficacy (Bandura, 1997). Behavioural intentions are future-oriented cognitions that combine various attitudes and appraisals with motivation to result in a course of action an individual proposes to follow. In the case of sexual

initiation behaviours (see Figure 2), the TPB model would predict that the more an individual perceives that important others will approve of them initiating, the more positive their evaluation of the outcomes of initiating, and the more confident they are in their ability to initiate, the stronger their intention to initiate sexual activities with their partner will be. Furthermore, the stronger an individual's intention to initiate, the more frequently they will initiate sexual activities with their partner.

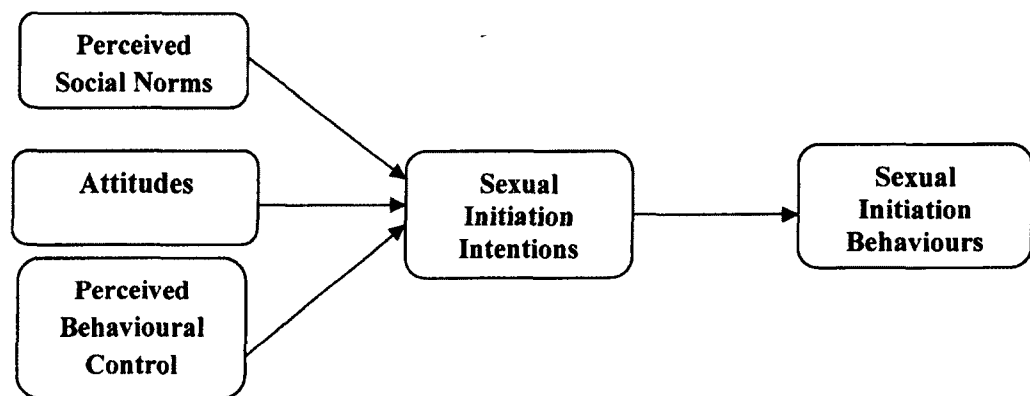


Figure 2. The Theory of Planned Behaviour Applied to Sexual Initiation Behaviours.

There is extensive support for the TPB in predicting a wide-range of non-sexual behaviour (e.g., Armitage & Conner, 2001; Blue, 1995; Conner & Armitage, 1998; Conner & Sparks, 1996). There is also evidence for the utility and validity of the model in predicting sexual intentions and behaviours in young adults. For example, the determinants of intentions have been shown to predict the strength of intentions to: use condoms and contraceptives during intercourse; take contraceptive pills; engage in intercourse and premarital sex; lose one's virginity; and engage in risky sexual behaviours (Basen-Enquest & Parcel, 1992; Beadnell, Wilsdon, Wells, Gillmore, Hoppe

& Morison, 2007; Molla, Åström & Brehane, 2007; Munoz-Silva, Sanchez-Garcia, Nunes & Martins, 2007; Villarruel, Jemmott, Jemmott & Ronis, 2004). Furthermore, behavioural intentions are associated with these and other sexual behaviours. Finally, research has demonstrated that the determinants of intention affect sexual behaviours through their influence on behavioural intentions (Basen-Engquist & Parcel, 1992). However, a review of the literature revealed no studies that have utilized the TPB to explain sexual initiation behaviours specifically. Nonetheless, based on past literature, it was predicted that:

H2. Individuals who perceive more positive social norms toward, have more positive attitudes toward, and perceive greater behavioural control over initiating sexual activities would have stronger intentions to engage in sexual initiation behaviours.

H3. Individuals with stronger intentions to initiate sexual activities with their partner would report engaging in more frequent sexual initiation behaviours over and above the contribution of perceived social norms, attitudes and perceived behavioural control.

H4. Intentions to engage in sexual initiation behaviours would mediate the relationship between perceived social norms, attitudes, and perceived behavioural control and actual sexual initiation behaviours.

Gender and Sexual Initiation Behaviours

An important consideration in the examination of sexual initiation behaviours and predictors of these behaviours is the influence of gender-discrepant sociosexual

norms. The Traditional Sexual Script (TSS) is the normative, gender-based sequence of events that are expected to take place during sexual interactions (Littleton, Axsom, & Yoder, 2006; Simon & Gagnon, 1986). According to the TSS, in sexual situations, men are expected to be instrumental whereas women are expected to be receptive and passive (Byers, 1995). Sexual initiations are instrumental behaviours in that they are active and inherently agentic. Thus, it is likely that men and women differ in their perceptions of social norms, attitudes, perceived behavioural control, intentions, and behaviours related to sexual initiations. Also, it is likely that gender affects the relationship between these factors. However, there has been little past research on gender differences within these aspects of the sexual script.

Gender differences in TPB components. A number of studies have demonstrated that men initiate sexual behaviours more frequently than do women (Byers and Heinlein, 1989; Blumstein & Schwartz, 1983; Dworkin & O'Sullivan, 2005; Gossman, et al., 2003; O'Sullivan & Byers, 1992). No studies were found that have examined gender differences in the other components of the TPB directly. However, compared to women, men have been shown to talk and think about sex more, assign greater importance to engaging in sexual behaviours, and have more frequent sexual thoughts and intentions to engage in casual sex (Baumeister et al., 2001; Fischtein, Herold, & Desmarais, 2007). This suggests that men likely have stronger intentions to initiate sexual activities in heterosexual sexual interactions. In addition, compared to young women, young men receive more permissive messages about engaging in sexual activities from parents, peers, and partners (Milhausen & Herold, 1999; Treboux & Busch-Rossnagel, 1990) and have more positive attitudes towards engaging in a number

of sexual behaviours (Baumeister et al., 2001; Fischetin et al., 2007). These results suggest that men likely perceive more positive social norms and have more positive attitudes towards sexual initiations than do women. Further, men gain more information about how to initiate sexual activity (e.g., from media depictions which predominantly depict male-dominant initiation; see Hust, Brown & L'Engle, 2008; Zilbergeld & Zilbergeld, 2004), and gain more competence in their ability to initiate (e.g., through their more frequent initiations) than do women. These findings suggest that men may perceive greater competence in their ability to initiate sexual activities than do women.

Therefore we predicted that:

H5a. Men would perceive more positive social norms, have more positive attitudes towards, perceive greater behavioural control over, and have stronger intentions to initiate sexual activity than would women.

H5b. Men would report initiating sexual activities more frequently than would women.

Gender as a moderator of the relationship between the TPB predictors and sexual initiation intentions and behaviours. The TPB is expected to predict the sexual initiation intentions and actual behaviours of both male and female daters. However, it is likely that the determinants of intentions are more strongly related to initiation intentions, and that initiation intentions are more strongly related to initiation behaviours for men than for women. There are three main reasons for this. First, women likely (correctly) anticipate that, in keeping with the TSS, their male partner will initiate sexual activity. Thus, women may anticipate that sexual activity will occur regardless of whether they initiate it. Therefore, they would be less likely to form intentions to initiate

themselves regardless of their perceptions of social norms, attitudes, and perceived behavioural control for sexual initiations. Second, an intention can only be expressed in behaviour if the behaviour is under volitional control (i.e., if an individual can decide to perform or not perform the behaviour at will). However, partnered sexual behaviours occur between two people rather than within the individual as is the case for other behaviours that have been the focus of past TPB research (Armitage & Conner, 2001). That is, partner interactions that adhere to the TSS may result in fewer opportunities for women to initiate sexual activities with their (male) partner even if they intend to do so because their partner is likely to initiate before they themselves get the opportunity to do so. Finally, past reviews have found the TPB accounted for between 27% and 39% of the variance in behaviour and intention, respectively (Armitage and Conner, 2001). Clearly, in addition to the components of the TPB, other exogenous factors also influence initiation intentions and behaviours (Fishbein & Cappella, 2007). It may be that gender is one of these factors. Indeed, past research has found the model better fits men's than women's intentions and behaviours with respect to refraining from risky drinking behaviours (Hassan & Shiu, 2007). Thus, it was proposed that:

H6a. Gender would moderate the relationships between perceived social norms, attitudes, perceived behavioural control and sexual initiation intentions such that the determinants of intentions would predict a greater percent of variance in the strength of men's than in the strength of women's initiation intentions.

H6b. Gender would moderate the relationships between perceived social norms, attitudes, perceived behavioural control, sexual initiation intentions and sexual initiation behaviours such that the determinants of behaviour would predict a

greater percent of variance in the frequency of men's than women's initiation behaviours.

H7a. The TPB variables would account for more variance in the initiation intentions of men than of women.

H7b. The TPB variables would account for more variance in the initiation behaviours of men than of women.

Method

Participants

One hundred and fifty-one individuals who met the inclusion criteria (were 18-25 years of age, in a heterosexual dating relationship between 3 and 18 months, had seen their dating partners at least 3-4 days per week over the previous month, and had engaged in genitally-focused sexual activities) participated in an online survey. An additional 178 individuals visited the survey site. However, information is not available about those who did not complete the survey because data were only stored after participants pressed the 'submit' button at the end of the survey. Thus, it is not known how many of the individuals who visited the site met the inclusion criteria or never began the survey. Participants ranged in age from 18 to 25 years ($M = 20.9$ years) and most (88%) were university or college students. Participants had been in their relationship, on average, for 8.2 months ($SD = 3.6$), saw their partners *once a day*, and reported high relationship satisfaction ($M = 31.3$, $SD = 3.9$).

There were no significant differences in the age and dating relationships of the men and women (i.e., age, length of dating relationship, relationship satisfaction, frequency of seeing their partner in the past month), $F_{mult}(4, 146) = 1.99$, $p > .05$.

Measures

Participants completed a number of measures and individual questions. Only those measures needed to test the current hypotheses are described below. The complete survey instrument can be found in Appendix B.

Background Questionnaire. A background questionnaire was used to assess age, gender, and other demographic factors (i.e., student status, sexual orientation, duration of current relationship, frequency of seeing partner over the past month, sexual activities engaged in with their current partner) and to ensure that participants met inclusion criteria.

Theory of Planned Behaviour Questionnaire. This measure was developed for the current study based on Ajzen's (2002) guidelines for construction of a TPB questionnaire. One item was used to assess the frequency of sexual initiation behaviour. Participants were asked to indicate the frequency with which they had initiated sexual activities with their partner over the past month (Initiation Behaviours). Participants were also asked to report the frequency with which their partner initiated sexual activities with them in the past month (Partner Initiation Behaviours). In keeping with Rosen, Taylor and Lieblum (1994), ratings were made on a 7-point scale ranging from *not at all* (1) to *more than once a day* (7).

Two items were used to assess the strength of participants' intentions to initiate sexual activities with their partner (Initiation Intentions). First, participants were asked how likely it was that they would initiate sexual activities with their partner on a 7-point scale ranging from *extremely unlikely* (1) to *extremely likely* (7). In addition, they were asked how strong their intentions were to initiate sexual activity with their partner in the

upcoming month on a 7-point frequency scale ranging from *no intention at all* (1) to *very strong intention* (7). Scores on these two items were summed such that Initiation Intentions scores ranged from 2 to 14 with higher scores indicating stronger intentions to initiate sexual activities with a partner. In their analyses, Jemmott, Jemmott and Villarruel (2002) found high internal consistency for similar items used to measure young adults' behavioural intentions for condom use during intercourse ($\alpha = .96$). Further, Wang and colleagues (2007) used a similar scale to measure intentions to use contraception and found that scores on this item were predicted by attitudes, self efficacy, and social influences supporting its validity. The internal consistency of the items in the current study was adequate ($\alpha = .68$).

Four items were used to assess participants' perceptions of social norms regarding sexual initiation behaviours (Perceived Social Norms). First, participants indicated the extent to which they agreed that people who are important to them think they should initiate sexual activities with their partner on a scale ranging from *strongly disagree* (1) to *strongly agree* (5). Next, participants indicated the extent to which their partner, same-sex friends, and parents would approve of them initiating sexual activities with their partner. These three items were rated on 5-point Likert scales with end points *strongly disapprove* (1) and *strongly approve* (5). Scores from the four items were summed such that scores for Perceived Social Norms ranged from 4 to 20 with higher scores indicating more positive perceptions of important others' evaluations of initiation behaviours. Past research that has used similar items to measure perceptions of social norms has demonstrated good internal consistency and reliability (Hassan & Shiu, 2008,

$\alpha = .63$; Jemmott et al., 2002, $\alpha = .83$; Munoz-Silva et al., 2007, $\alpha = .77$). The internal consistency for Perceived Social Norms in the current study was adequate ($\alpha = .67$).

Eight items were used to assess participants' attitudes towards initiating sexual activities with their partner (Attitudes). Participants indicated the extent to which they anticipated positive versus negative outcomes from initiating sexual activities with their partner on eight 7-point bipolar scales with end points: *unenjoyable/enjoyable*, *difficult/easy*, *unpleasant/pleasant*, *a turn-on/a turn-off*, *bad/good*, *valuable/worthless*, *beneficial to the relationship/harmful to the relationship*, *awful/great*. Scores on these eight items were summed such that scores for Attitudes ranged from 8 to 56 with higher scores indicating more favourable personal evaluations of sexual initiation behaviours. Van De Ven and colleagues (2007) and Hassan and Shiu reported high internal consistency using similar scales in samples of older adolescents ($\alpha = .81$ and $\alpha = .90$). The internal consistency for this measure in the current study was high ($\alpha = .92$).

Finally, three items were used to assess participants' perceived behavioural control for initiating sexual activities with their partner (Perceived Behavioural Control). First, participants rated how easy or difficult they perceived initiating sexual activity with their partner to be. Ratings were made on a 5-point scale with end points *very difficult* (1) to *very easy* (5). Next, participants reported the extent to which they agreed that initiating sexual activity is entirely up to them on a 7-point Likert scale with end points *strongly disagree* (1) to *strongly agree* (7). Finally, they indicated how sure they were that they could initiate sexual activities with their partner when they wanted to (*very unsure* (1) to *very sure* (7)). Initial examination of the internal consistency of the three items indicated that there was a low correlation between the second item and the

total score. Therefore, only scores on the first and third item were summed such that Perceived Behavioural Control scores ranged from 2 to 12 with higher scores indicating perceptions of greater control of and confidence in abilities relevant to sexual initiation behaviours. Past research demonstrates good reliability of similar measures within populations of older adolescents (Shen, McCaughtry, & Martin, 2008, $\alpha = .73$; Van De Ven et al., 2007, $\alpha = .73$). The current study found adequate internal consistency for this scale ($\alpha = .64$).

Sexual and relationship satisfaction. Participants completed the Global Measure of Sexual Satisfaction (GMSEX; Lawrance & Byers, 1998) to assess satisfaction with the sexual relationship. In response to the question ‘In general, how would you describe your sexual relationship with your partner?’, respondents rated their sexual relationship on 7-point bipolar scales with endpoints: *good/bad*, *pleasant/unpleasant*, *positive/negative*, *satisfying/unsatisfying*, *valuable/worthless*. Possible scores ranged from 5 to 35 with higher scores indicating greater sexual satisfaction. Participants also completed the Global Measure of Relationship Satisfaction (GMREL; Lawrance & Byers, 1998) to assess overall satisfaction with their relationship. This measure is identical to the GMSEX except participants rate their overall relationship in response to the following question, ‘In general, how would you describe your overall relationship with your partner?’. Lawrance and Byers (1998) provided evidence for the construct validity, test-retest reliability, and internal consistency of the GMSEX and GMREL ($\alpha = .91$). The internal consistency of these measures for the current study was also high ($\alpha = .90$).

Procedure

Participants were recruited for the study via posters in residence buildings and common areas, such as the university library on the campus of a mid-size Canadian university, and through advertisements posted on popular social networking sites (i.e., Kijiji, Craigslist, Facebook). All advertisements invited individuals between the ages of 18 and 25 who lived in Canada and were in a heterosexual dating relationship of between 3 and 18 months in duration to participate in an online questionnaire about sexual activity in their current romantic relationship and directed them to the study website. The recruitment materials can be found in Appendix A.

Once at the study website, participants were informed of the nature of the study including freedom to refuse to answer any question, freedom to withdraw, and that their answers would only be submitted once they hit the 'submit' button at the end of the survey. Participants were asked to complete the survey in a private setting and at a time that they would not be distracted. Participants gave consent by clicking on the "I am between 18-25 years of age, live in Canada, and hereby consent to participate" button. Participants completed the demographics questionnaire, GMSEX, GMREL, and Theory of Planned Behaviour Questionnaire in that order. Upon submitting the survey, participants read a debriefing form that further described the study and provided information regarding sexuality-related resources and contact information for local and online mental health services (see Appendix C). Participants were then given the option to follow a link to another secure information website unconnected to their data where they could enter their name and contact information in order to be entered into a raffle to win one of six VISA gift cards of \$25 value.

Results

Prior to analysis, the data were screened for missing values. Seven participants were missing less than 10% of items on a scale; the mean score on their responses to the other items were substituted for their missing responses. Three participants were missing more than 10% of the items on one scale; they were assigned the mean scale score for their gender for the scale. Next, data were screened for normality, linearity and homoscedasticity using the procedures recommended by Tabachnik and Fidel (2001); all of these assumptions were met. To address univariate outliers, as recommended by Tabachnik and Fidel, two scores were adjusted on the Attitudes variable such that they continued to be the highest/lowest score in the distribution, but were no longer discontinuous. Examination of the zero-order correlations did not identify any potential problems of multicollinearity using Tabachnik and Fidel's criterion of correlations greater than .70 (see Table 1). All of the predictors in the TPB were significantly associated with each other. In addition, Attitudes, Perceived Behavioural Control, and Initiation Behaviours were significantly associated with Partner Initiation Behaviours. Finally, all of the predictors except Perceived Social Norms were significantly associated with sexual satisfaction.

Table 1

Zero-order Correlations Among Variables in the Study

	1	2	3	4	5	6
1. Perceived Social Norms						
2. Attitudes	.29***					
3. Perceived Behavioural Control	.25**	.65***				
4. Initiation Intentions	.35***	.39***	.39***			
5. Initiation Behaviours	.28***	.27**	.32***	.61***		
6. Partner Initiation Behaviours	.01	.31***	.31***	.11	.29***	
7. Sexual Satisfaction	.15	.64***	.41***	.30***	.29***	.33***

Note: $N = 151$.

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

Contemporary Script for Sexual Initiations

Overall and descriptive information by gender for the variables delineating the contemporary script for sexual initiations (Perceived Social Norms, Attitudes, Perceived Behavioural Control, Initiation Intentions, and Initiation Behaviours) are presented in Table 2. In general, participants reported positive Perceived Social Norms indicating perceptions that important others would approve of them initiating sexual activities with their partner. On average, participants reported positive Attitudes and high Perceived Behavioural Control indicating that they held positive attitudes towards sexual initiation behaviours, and perceived confidence in their ability to initiate sexual activities with their partners. Further, on average, participants reported that they had a *strong intention* to initiate sexual activity in the next month. Participants reported that, on average, they

initiated sexual activities with their partner *2 or 3 times per week*. Similarly, they reported their partners initiated sexual activity with them, on average, *2 or 3 times per week*. Participants also reported high sexual satisfaction ($M = 31.8, SD = 3.8$).

Table 2

Men's, Women's, and Total Scores for Theory of Planned Behaviour and Sexual Satisfaction Variables

Variable	Range	Men		Women		Total	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Perceived Social Norms	4-20	16.00 _a	1.56	14.29 _a	2.33	14.85	2.25
Attitudes		50.94	4.17	50.25	6.42	50.36	6.21
Perceived Behavioural Control	2-12	9.92	1.19	10.21	2.10	10.11	1.84
Initiation Intentions	2-14	12.52 _b	1.55	11.2 _b	2.40	11.67	2.26
Initiation Behaviours	1-7	5.66 _c	0.96	4.42 _c	1.32	4.83	1.35
Partner Initiation Behaviours	1-7	4.82 _d	0.94	5.14 _d	1.11	5.03	1.07
Sexual Satisfaction	5-35	32.46	2.82	31.53	4.23	31.84	3.84

Note: $N = 50$ men, 101 women. Means with the same subscript differ significantly at $p < .001$.

A one-way MANOVA was used to test the prediction that, compared to the women, the men would perceive more positive social norms, have more positive attitudes, perceive greater behavioural control over, and have stronger intentions to initiate (H5a). The analysis was significant, $F_{mult}(4,146) = 9.54, p < .001, \eta^2 = .21$. Follow-up ANOVAs indicated that, compared to the women, the men reported more

positive Perceived Social Norms, $F(1, 149) = 22.13, p < .001, \eta^2 = .13$, and had significantly stronger Initiation Intentions, $F(1, 149) = 11.45, p < .001, \eta^2 = .07$. However, the men and women did not differ in their Attitudes or Perceived Behavioural Control in regard to initiating sexual activities with their partners, $F(1, 149) = 0.48, p > .05$, and $F(1, 149) = 0.81, p > .05$, respectively (see Table 2).

A MANOVA was used to test the prediction that, compared to women, men would initiate sexual activities more frequently (H5b). Initiation Behaviours and Partner Initiation Behaviours served as the dependent variables. The analysis was significant, $F_{mult}(2, 148) = 26.90, p < .001, \eta^2 = .27$. Follow-up ANOVAs indicated that the men reported more initiations by themselves (i.e., *once per day*) than the women did for themselves (i.e., *2 to 3 times per week*), $F(1, 149) = 35.10, p < .001$. Conversely, the women reported significantly more frequent partner initiations than did the men, $F(1, 149) = 3.02, p > .05$ (see Table 2). That is, both men and women agreed that male partners initiated sexual activities more frequently than did female partners.

Initiation Behaviours as Predictors of Sexual Satisfaction

A hierarchical multiple regression analysis was conducted to explore whether sexual initiation behaviours were associated with male and female daters' sexual satisfaction (H1). Initiation Behaviours and Partner Initiation Behaviours were entered on Step 1. Gender was entered on Step 2. Finally, the interaction terms between gender and Initiation Behaviours and Partner Initiation Behaviours, calculated using partialled products based on centred variables, were entered on Step 3.

Table 3

Hierarchical Multiple Regression Analysis Predicting Sexual Satisfaction from Self and Partner Sexual Initiations

Predictor	B	<i>sr</i>	ΔR^2
Step 1			.15***
Initiation Behaviours	.21	.21**	
Partner Initiation Behaviours	.26	.25*	
Step 2			.01
Gender	-.01	-.07	
Step 3			.01
Gender x Initiation Behaviours	-.09	-.07	
Gender x Partner Initiation Behaviours	.12	.10	
Final R^2			.16***

Note: $N = 50$ men, 101 women, $F_{mult}(5, 145) = 13.02, p < .001$.

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

Self and Partner Initiation behaviours accounted for 15% of the variance in sexual satisfaction, $F(2, 148) = 12.84, p < .001$ (see Table 3). Both Initiation Behaviours and Partner Initiation Behaviours contributed uniquely to sexual satisfaction. The more frequently either partner initiated sexual activities, the greater the sexual satisfaction. Neither gender nor the interaction terms added significantly to the prediction of sexual satisfaction, $F_{change}(1, 147) = .78, p > .05$, and $F_{change}(2, 145) = .97, p > .05$, respectively. This indicates that the men and women reported similar levels of

sexual satisfaction and that the relationship between initiations and sexual satisfaction did not differ for the men and women.

Predicting Sexual Initiation Intentions

A hierarchical multiple regression analysis was used to test the hypotheses that higher scores on the determinants of intentions (Perceived Social Norms, Attitudes, and Perceived Behavioural Control) would be associated with stronger Initiation Intentions (H2) and that gender would moderate these relationships (H6a). The determinants of intentions were entered on Step 1. Gender was entered on Step 2. Finally, the interaction terms between gender and the determinants of intentions using partialled products based on centred variables were entered on Step 3.

The determinants of intentions accounted for 24% of the variance in Initiation Intentions, $F(3, 147) = 15.19, p < .001$ (see Table 4). As predicted, all three of the determinants of intentions contributed uniquely to the prediction of Initiation Intentions. Individuals who held positive beliefs about social norms, had more positive attitudes toward and perceived greater competence in their ability to initiate sexual activities reported stronger intentions to initiate sexual activities with their partner. On Step 2, gender added significantly to the prediction of Initiation Intentions accounting for 4% additional variance, $F_{change}(1, 146) = 8.20, p < .05$. Men reported stronger Initiation Intentions than did women. Contrary to H6a, the interaction terms between gender and the model variables did not significantly add to the prediction of Initiation Intentions, $F_{change}(3, 143) = 0.08, p > .05$. This indicates that the relationship between the determinants of intentions and Initiation Intentions did not differ for men and women.

Table 4

Hierarchical Multiple Regression Analysis Predicting Initiation Intentions from Perceived Social Norms, Attitudes, and Perceived Behavioural Control

Predictor	β	<i>sr</i>	ΔR^2
Step 1			.24***
Perceived Social Norms	.24	.23**	
Attitudes	.19	.14*	
Perceived Behavioural Control	.20	.15*	
Step 2			.04**
Gender	-.22	-.20**	
Step 3			< .01
Gender x Perceived Social Norms	-.02	-.02	
Gender x Attitudes	.00	.00	
Gender x Perceived Behavioural Control	.04	.03	
Final R^2			.28***

Note: $N = 50$ men, 101 women, $F_{multi}(7, 143) = 7.89, p < .001$

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

Predicting Sexual Initiation Behaviours

A hierarchical multiple regression analysis was performed to test the hypothesis that higher scores on the determinants of initiation behaviours (Perceived Social Norms, Attitudes, Perceived Behavioural Control, Initiation Intentions) would be associated with more frequent Initiation Behaviours (H3) and that gender would moderate these

relationships (H6b). The determinants of behaviours were entered on Step 1. Gender was entered on Step 2. The interaction terms between gender and the determinants of intentions using partialled products based on centered variables were entered on Step 3.

In support of H3, the model was significant in accounting for 39% of the variance in Initiation Behaviours, $F(4, 146) = 23.39, p < .001$ (see Table 5). Although all of the zero-order correlations between the predictors and Initiation Behaviours were positive and significant (see Table 1), only Initiation Intentions contributed uniquely to the prediction of frequency of Initiation Behaviours. On Step 2, gender added significantly to the equation, accounting for 9% of additional variance in Initiation Behaviours, $F(1, 145) = 26.13, p < .001$. The men reported initiating sexual activities more frequently than did the women. Contrary to H6b, the interaction terms between gender and the model variables did not significantly add to the prediction of Initiation Behaviours, $F(4, 141) = 0.87, p > .49$. This indicates that the relationship between the determinants of behaviours and Initiation Behaviours did not differ for the men and the women.

Table 5

Hierarchical Multiple Regression Analysis Predicting Initiation Behaviours from Perceived Social Norms, Attitudes, Perceived Behavioural Control, and Initiation Intentions

Predictor	β	<i>sr</i>	ΔR^2
Step 1			.39***
Perceived Social Norms	.07	.07	
Attitudes	-.06	-.04	
Perceived Behavioural Control	.12	.09	
Initiation Intentions	.56	.49***	
Step 2			.09***
Gender	-.34	-.31***	
Step 3			.01
Gender x Perceived Social Norms	.08	.07	
Gender x Attitudes	.05	.04	
Gender x Perceived Behavioural Control	-.03	-.02	
Gender x Initiation Intentions	.05	.04	
Final R^2			.50***

Note: $N = 50$ men, 101 women, $F_{mult}(9,141) = 15.42, p < .001$.

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

Intentions as a Mediator of the Relationship between Determinants of Behaviours and Initiation Behaviours

The procedures proposed by Baron and Kenny (1986) to establish mediation were used to test the hypothesis that Initiation Intentions would mediate the relationship between Perceived Social Norms, Attitudes and Perceived Behavioural Control and Initiation Behaviours (H4). According to Baron and Kenny (see also Preacher & Leonardelli, 2001), four conditions must be met to establish mediated moderation: 1) the independent variables account for a significant proportion of the variance in the mediator; 2) the independent variables account for a significant proportion of the variance in the dependent variable in the absence of the mediator; 3) the mediator has a significant unique effect on the dependent variable over and above that of the independent variables; and, 4) the effect of the independent variables on the dependent variable is reduced upon the addition of the mediator to the model.

The multiple regression analysis used to test H2 demonstrated that condition 1 was satisfied; Perceived Social Norms, Attitudes, and Perceived Behavioural Control were all significantly related to Initiation Intentions. To test condition 2, Perceived Social Norms, Attitudes, and Perceived Behavioural Control were regressed onto Initiation Behaviours. This analysis was significant, $R^2 = 0.15$, $F(3,147) = 8.47$, $p < .001$. Although the zero-order correlations between all three of the variables and Initiation Behaviour were significant (see Table 1), examination of semipartial correlations revealed that Attitudes did not uniquely predict Initiation Behaviours (see Table 6). Thus, condition 2 was satisfied for Perceived Social Norms and Perceived Behavioural Control but not for Attitudes. Therefore, Attitudes were not pursued further.

The multiple regression analysis to test H3 demonstrated that condition 3 was satisfied; Initiation Intentions contributed uniquely to the prediction of Initiation Behaviours over and above Perceived Social Norms, Attitudes, and Perceived Behavioural Control.

Table 6

Multiple Regression Analysis Predicting Initiation Behaviours from Perceived Social Norms, Attitudes, and Perceived Behavioural Control

Variable	β	<i>sr</i>
Perceived Social Norms	.21	.20**
Attitudes	.05	.04
Perceived Behavioural Control	.23	.18*

Note: $N = 151$, $R^2 = .15$, $F(3,147) = 8.47$, $p < .001$.

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

A bootstrapping procedure was used to test direct and mediated pathways in the proposed model using an SPSS macro for Indirect Effects (Simple Mediation) by Preacher and Hayes (2004, 2008). Bootstrapping is a resampling technique that involves taking a large number of samples of the same sample size and computing the direct and indirect (mediated) effects for each sample (Preacher and Hayes, 2004). In this case, 1000 samples of 151 were drawn. In doing this, any participant may be counted several times in a given sample. The mean path coefficient and standard error (SD of the 1000 estimates) are generated. Further, confidence intervals are created for each indirect effect tested. These confidence intervals are used to test significance. For

an alpha of .05, a 95% confidence interval is derived. The path coefficient is viewed as significant at the .05 level if 0 does not fall within the confidence interval (Hayes, 2009). Bootstrapping provides a direct test of whether mediation effects are significant. Bootstrapping statistics for the indirect effects are provided in Table 7. Figure 2 presents a graphic representation of the mediation model.

As predicted, Initiation Intentions was found to fully mediate the relationship between both Perceived Social Norms and Perceived Behavioural Control and Initiation Behaviours. Specifically, after controlling for Initiation Intentions, the relationship between Perceived Social Norms and Initiation Behaviours was reduced from $\beta = .21, p < .001$ to $\beta = .07$ and was no longer significant; the confidence interval for the bootstrapping analysis did not include 0 (see Table 7).

Table 7

Mediation of Perceived Social Norms, and Perceived Behavioural Control on Sexual Initiation Behaviour through Sexual Initiation Intentions

Pathway	Indirect Effect	SE	Upper Bound 95% CI	Lower Bound 95% CI
PSN – INT – BEH	.081	.030	.148	.030
PBC – INT – BEH	.083	.042	.174	.002

Note: $N = 151$; PSN = Perceived Social Norms; PBC = Perceived Behavioural Control; INT = Initiation Intentions; BEH = Initiation Behaviours; CI = bias corrected and accelerated 95% Confidence Interval; 1000 bootstrap samples.

In addition, after controlling for Initiation Intentions, the relationship between Perceived Behavioural Control and Initiation Behaviours was reduced from $\beta = .23, p <$

.001, to $\beta = .12$ and was no longer significant (see Table 7). This indicates that, as predicted, Initiation Intentions fully mediated the relationship between Perceived Social Norms, Perceived Behavioural Control, and Initiation Behaviours. The paths between the variables are depicted in Figure 3.

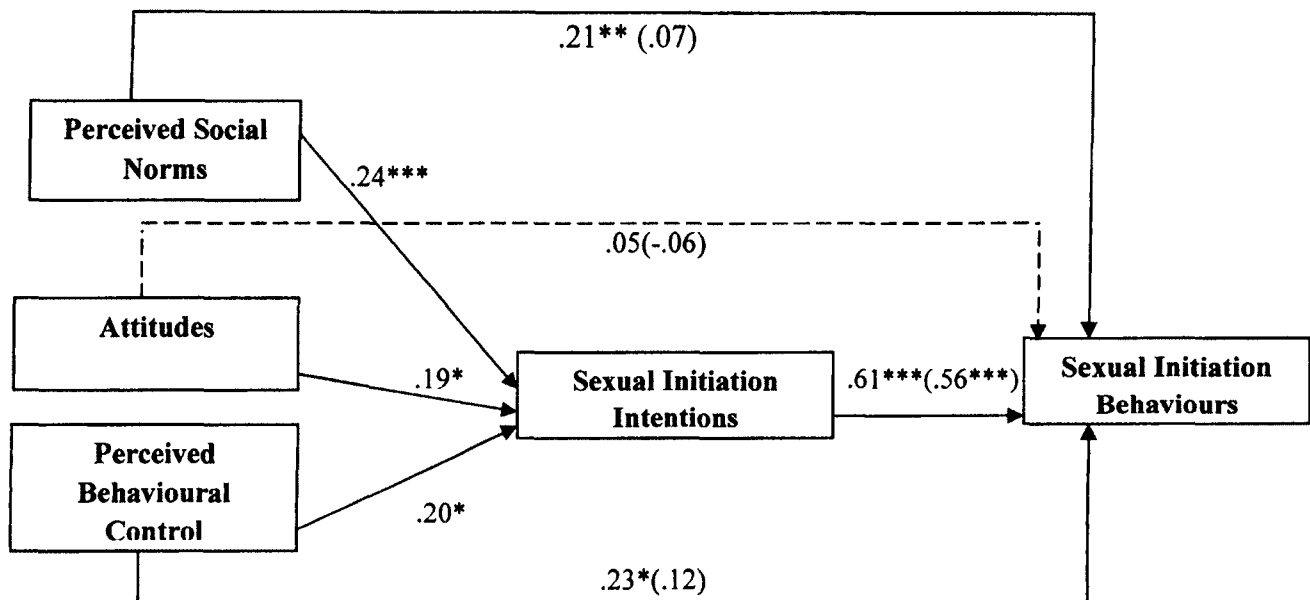


Figure 3. Pathways linking Perceived Social Norms, Attitudes, Perceived Behavioural Control, Sexual Initiation Intentions, and Sexual Initiation Behaviours.

Note: $N = 151$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Path coefficients outside of parenthesis are zero-order betas. Standardized path coefficients derived through bootstrapping are in parenthesis and reflect the unique relationship between variables excluding variance from preceding variables.

Gender Differences in Model Fit

Separate multiple regression analyses for men and women were performed to determine whether the components of the TPB model accounted for more variance in the Initiation Intentions of men than of women (H7a). The analysis to predict men's Initiation Intentions was not significant, $R^2 = 0.10$, $F(3, 46) = 1.72$, $p < .05$. However,

the model was found to significantly predict women's Initiation Intentions $R^2 = 0.26$, $F(3, 97) = 11.13$, $p < .001$. Fisher's z' transformation indicated that, contrary to predictions, the amount of variance predicted by the model for men's and women's Initiation Intentions did not differ significantly, $z = 1.33$, $p > .05$.

A similar procedure was used to test the prediction that the components of the TPB model would account for more variance in the Initiation Behaviours of men than of women (H7b). Both the analyses to predict men's and women's Initiation Behaviours were significant, $R^2 = 0.19$, $F(4, 45) = 2.61$, $p < .05$ and $R^2 = 0.43$, $F(4, 96) = 17.83$, $p < .001$, respectively. Fisher's z' transformation indicated that, contrary to predictions, the amount of variance predicted by the model for men's and women's Initiation Behaviours did not differ significantly, $z = 1.77$, $p > .05$.

Discussion

Past research has failed to provide a comprehensive understanding of sexual initiation behaviours. Indeed, research on initiations has focused on categorizing *how* people initiate (Jesser, 1978; LaPlante, McCormick, & Brannigan, 1980; McCormick, 1979; McCormick, Brannigan, & LaPlante, 1984). The current study sheds light on the current script for sexual initiation behaviours by assessing dating individuals' intentions to initiate, perceptions of sociosexual norms regarding initiating, evaluations of the outcomes of initiating, and beliefs about their ability to initiate sexual activities with their partners. Additionally, the current study is the first to apply the TPB to sexual initiation behaviours. The results demonstrated the utility of the TPB for understanding factors associated with the frequency of sexual initiations. This is important because we found, consistent with research with long-term couples (Blumstein & Schwartz, 1983;

Byers & Heinlein, 1989) that more frequent initiations by both an individual and by their partner were related to greater sexual satisfaction for both men and women. This suggests that initiations are, in and of themselves, important elements within daters' sexual interactions. It also suggests that having a sexual relationship in which both partners initiate sexual activity frequently may result in greater sexual satisfaction than having a relationship in which predominantly one partner is responsible for initiating. However, given the correlational nature of the study, the direction of this relationship cannot be determined. Thus, it may also be that individuals who are more sexually satisfied initiate sexual activity more often. Longitudinal research is needed to elucidate the direction of the relationship between initiation behaviours and sexual satisfaction.

Testing the Theory of Planned Behaviour

The results demonstrated the utility of the TPB in predicting the sexual initiation behaviours of men and women in heterosexual dating relationships. As predicted, the more an individual perceived that important others would approve of them initiating sexual activities with their partner, the more positive their evaluations were of the outcomes of initiating, and the more confident they were in their ability to initiate, the stronger were their initiation intentions; in turn, stronger initiation intentions were associated with more frequent sexual initiation behaviours. Furthermore, with the exception of attitudes, the results supported the proposed mediational model -- intentions fully mediated the relationship between perceived social norms and perceived behavioural control and initiation behaviours for both men and women. However, contrary to prediction, the model was not better at predicting men's than women's initiation intentions and behaviours.

Overall, we found the model accounted for 24% of the variance in initiation intentions. This is consistent with past research on sexual behaviours that found the TPB explained between 17% and 38% of the variance in young adults' intentions (Basen-Enquist & Parcel, 1992; Chan & Fishbein, 1993; Molla, et al., 2007; Munoz-Silva et al., 2007). This suggests that, as with other types of behaviours (Ajzen, 1991), psychosocial cognitive elements such as perceptions of sociosexual norms (perceived social norms), evaluative beliefs (attitudes), and self-perceptions (perceived behavioural control) have a major impact on sexual initiation intentions. That is, the way we think about a behaviour influences the strength of our intentions towards enacting the behaviour.

Additionally, we found that more positive perceived social norms, more positive attitudes towards, and greater perceived competence in ability to initiate were associated with initiation behaviour; these factors accounted for 15% of the variance in sexual initiation behaviours. Perceived social norms and perceived behavioural control uniquely predicted initiation behaviours. However, although positive attitudes were associated with initiation behaviour on a bivariate level, they did not add over and above the other predictors. Thus, for young adults in dating relationships, it appears that perceptions of sociosexual norms and self-efficacy are more important predictors of engaging in sexual initiation behaviours than are attitudes towards these behaviours. Nonetheless, perceptions of sociosexual norms and self-efficacy did not predict behaviour over and above intentions. This suggests that these psychosocial cognitions influence behaviour only indirectly through their effects on initiation intentions. Indeed, we found that intentions fully mediated the relationship between perceived social norms

and perceived behavioural control and initiation behaviour. This finding is consistent with the propositions of the TPB and with past research (Armitage & Conner, 2001).

The TPB accounted for more variance (39%) in sexual initiation behaviours than has typically been found for other sexual behaviours (i.e., between 5% and 25%) (Basen-Engquist & Parcel, 1992; Molla et al., 2007; Munoz-Silva et al., 2007). Given that intentions was the only unique predictor of initiation behaviour, this appears to be due to a stronger relationship between sexual initiation intentions and sexual initiation behaviours ($r = .61$) than between intentions and other sexual behaviours (range $r = .36$ to $r = .49$). There are a number of potential reasons for this. First, a review of the literature revealed no past TPB research that has focused on behaviours enacted to attain positive outcomes. That is, the majority of this research has focused on behaviours enacted to avoid negative outcomes (e.g., using condoms to prevent pregnancy). However sexual initiations are enacted to attain positive outcomes (e.g., engaging in sexual activities). It may be that the link between intentions and behaviours is stronger for behaviours with positive outcomes. Second, the present study adhered to instructions outlined by Ajzen (2002) and supported by empirical research (Armitage & Conner, 2001) to construct the TPB measure. That is, unlike much past research, measures of the predictor variables were directly compatible with the behaviour in terms of action, target, context, and time frame. Third, it may reflect the nature of the behaviour under investigation. Sheeran and Abraham (2003) proposed that greater past experience with a target behaviour and greater importance of the behaviour to self-schema increases the strength of the intention-behaviour relationship. It is likely that participants had greater experience engaging in sexual initiation behaviour with their current partner than

participants in previous studies had with engaging in the target sexual behaviours (e.g., using condoms). Furthermore, given that sexual initiation behaviours were associated with sexual satisfaction, it is likely that they are more important to daters' self-schema than are behaviours such as using condoms.

The Sexual Script for Initiation Behaviours

Several authors have suggested that a number of gender-related aspects of the sexual script have changed over the past two decades (Anderson & Aymami, 1993; Hogben, Byrne, & Hamburger, 1995; McCormick, 2010; Ortiz-Torres et al., 2003). However, our results suggest that the contemporary sexual script for initiations for dating couples is not dissimilar to the script found in investigations conducted more than 20 years ago (O'Sullivan & Byers, 1992). First, on average, the participants reported initiating sexual activities with their partners *2 or 3 times per week* and having strong intentions to do so in the near future. This was slightly higher than that reported by O'Sullivan and Byers (1992) who found that daters reported initiating, on average, 1.5 times per week. However, their sample included daters in casual relationships who may have had fewer opportunities to initiate than daters in the current study.

Second, the TSS continues to characterize heterosexual dating relationships. That is, consistent with the TSS and with past research (Blumstein & Schwartz, 1983; Byers & Heinlein, 1989; O'Sullivan & Byers, 1992), according to both the women and the men, male partners were significantly more instrumental than were female partners in that they initiate sexual activities more frequently. We extended past research by showing that other aspects of the sexual script for initiation also reflect the TSS – that is, the men perceived more positive social norms regarding their own sexual initiation than

did the women. This suggests the persistence of a double standard which gives men greater sexual freedom and rights of sexual determination than women (Blanc, 2001; Gupta & Weiss, 1993; Seal & Ehrhardt, 2003). It is also consistent with research that suggests that, compared to young women, young men receive more permissive messages about engaging in sexual activities from parents, peers, and partners (Haavio-Mannila & Kontula, 2003; Milhausen & Herold, 1999; Treboux & Busch-Rossnagel, 1990). In keeping with gender-discrepant sociosexual norms, the men also reported stronger intentions to initiate sexual behaviours than did the women.

It may be that the disparity between men's and women's initiation frequency and strength of intentions represents a real gender difference in interest in engaging in sexual activity (Baumeister et al., 2001; Zilbergeld & Zilbergeld, 2004). Alternatively, it may be that men and women have a similar interest in engaging in sexual activity, but conform to a common sexual script in which the man takes the role of initiator for the couple (McCormick, 1987). That is, if in keeping with the TSS, women anticipate that their male partner will initiate sexual activity, they may expect sexual activity to occur regardless of whether they initiate it themselves. This interpretation is supported by the finding that the women had positive attitudes toward and perceived great competence in their ability to initiate, but formed weaker intentions and initiated less frequently than did the men.

This pattern of findings can be understood within the tenets of script theory that posits that there are three interrelated levels of sexual scripts: intrapsychic, interpersonal, and cultural (Simon & Gagnon, 1986). Attitudes and perceived behavioural control are internal psychological processes that have to do with "what

individuals think about their conduct” (Simon & Gagnon, 1987, pp. 5) and thus comprise part of the intrapsychic script. Initiation intentions and behaviours are aspects of the interpersonal sexual script as they pertain to interactions between daters and the “concrete action of individuals” (Simon & Gagnon, 1987, pp. 5). Perceived social norms are sociosexual norms that dictate social roles within sexual interactions and thus are part of the cultural script. We found that, contrary to predictions based on the TSS, the men and women did not differ in attitudes or perceived behavioural control. However, they did differ in perceptions of social norms regarding sexual initiations, strength of initiation intentions, and frequency of engaging in initiation behaviours. Thus, our results suggest that the intrapsychic aspects of the initiation script are egalitarian, but gender differences persist in the interpersonal and cultural aspects of the script.

Other researchers have also found an intrapersonal-interpersonal discrepancy. For example, Lawrance, Taylor, and Byers (1996) found that women’s ideal sexual scripts did not match their actual sexual scripts; women ideally wanted to be more instrumental than they actually were in their sexual behaviours. Dworkin and O’Sullivan (2002) also found that even though men reported desiring more egalitarian initiation scripts, most still practiced male-dominated initiation scripts with their dating partners. Research suggests that changes in cognitive factors such as attitudes precede overt changes in behaviour (Ajzen, 1991; Armitage & Conners, 2001). Thus, it may be that the more egalitarian nature of the intrapersonal components of the sexual script for initiation will result in increasingly convergent scripts for initiation intentions and behaviours. In turn, once behavioural shifts occur in the enacted sexual script, it is likely that they will be reflected at the cultural level with shifts in perceived social norms

regarding initiation behaviours. Alternatively, it may be that despite women's positive attitudes and high self-efficacy, the TSS is too entrenched in enacted sexual behaviour to allow for shifts towards convergent interpersonal or cultural scripts. In fact, Simon and Gagnon (1987) cautioned that changes in one level of the sexual script do not necessarily result in changes in other aspects of the script. The fact that the currently enacted sexual script is not dissimilar from that reported more than 20 years ago supports this interpretation. Future research will allow for the examination of shifts or changes within intra- and interpersonal sexual scripts for sexual initiation.

Conclusions

The results of the present study must be interpreted in the light of its limitations. Although, overall the sample size was substantial, there were half as many men in the sample as there were women. Having a smaller sample of men may have affected the statistical power of some analyses performed as more equal cell sizes tend to produce more reliable results (Tabachnick & Fidell, 2001). Additionally, we surveyed only one member of a couple. As there is an interaction between intrapersonal, interpersonal, and situational factors at each step along the chain of behaviours which precedes sexual activity (Byers & Heinlein, 1989), interdyadic research is needed to capture the reciprocal relationship between components of the model. For example, it may be the frequency with which partner A initiates sexual activities with partner B influences partner B's perceived behavioural control for initiating or their intentions to initiate. Finally, the current study assessed initiation behaviours concurrently with intentions rather than prospectively. That is, we did not collect data about behaviour for the time

period about which we assessed behavioural intentions (i.e., the month following study participation).

Nevertheless, the results enhanced our understanding of sexual initiation behaviours and their contribution to sexual satisfaction within short-term daters. We have extended past research by showing the utility of the TPB for understanding sexual initiation behaviour. We also extended past research by providing information about the contemporary sexual script for sexual initiation behaviours including both initiation behaviours and psychosocial cognitions related to behavioural enactment. Importantly, we found that the TSS continues to characterize the interpersonal and cultural aspects of men's and women's sexual scripts for initiation behaviours but not the intrapersonal aspects which are more egalitarian. Future research will ascertain whether initiation intentions and behaviours become more egalitarian over time.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I. (2002). Constructing a TPB questionnaire: Conceptual and methodological considerations. Retrieved March 02, 2009 from Icek Ajzen, Theory of Planned Behavior: <http://people.umass.edu/aizen/tpb.html>
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22(5), 453-474. doi:10.1016/0022-1031(86)90045-4
- Albarracin, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behaviour as models of condom use: A meta-analysis. *Psychological Bulletin*, 127, (1), 142-161. doi: 10.1037//0033-2909.127.1.142
- Anderson, P. B., & Aymami, R. (1993). Reports of female initiation of sexual contact: Male and female differences. *Archives of Sexual Behavior*, 22(4), 335-343. doi:10.1007/BF01542122
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499. doi:10.1348/014466601164939
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY US: W H Freeman/Times Books/ Henry Holt & Co.

- Baron, R.M., & Kenny, D.A. (1986). The Moderator-Mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Basen-Engquist, K., & Parcel, G. S. (1992). Attitudes, norms, and self-efficacy: A model of adolescents' HIV-related sexual risk behavior. *Health Education Quarterly, 19*(2), 263-277. Retrieved from <http://heb.sagepub.com/cgi/reprint/19/2/263>
- Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review, 5*(3), 242-273. doi:10.1207/S15327957PSPR0503_5
- Beadnell, B., Wilsdon, A., Wells, E. A., Gillmore, M. R., Hoppe, M., & Morison, D. M. (2007). Intrapersonal and interpersonal factors influencing adolescents' decisions about having sex: A test of sufficiency of the theory of planned behavior. *Journal of Applied Social Psychology, 37*(12), 2840-2876. doi:10.1111/j.1559-1816.2007.00285.x
- Blanc, A. K. (2001). The effect of power in sexual relationships on sexual and reproductive health: An examination of the evidence. *Studies in Family Planning, 32* (3), 189-213. doi: 10.1111/j.1728-4465.2001.00189.x
- Blue, C. L. (1995). The predictive capacity of the theory of reasoned action and the theory of planned behavior in exercise research: An integrated literature review. *Research in Nursing & Health, 18*(2), 105-121. doi:10.1002/nur.4770180205

- Blumstein, P., & Schwartz, P. (1983). *American couples: Money, work, sex*. New York: William Morrow.
- Brody, S., & Costa, R. M. (2009). Satisfaction (sexual, life, relationship, and mental health) is associated directly with penile and vaginal intercourse, but inversely with other sexual behaviour frequencies. *Journal of Sexual Medicine*, *6*(7), 1947-1954. doi:10.1111/j.1743-6109.2009.01303.x
- Byers, E. S. (1995). How well does the traditional sexual script explain sexual coercion? review of a program of research. *Journal of Psychology & Human Sexuality*, *8*(1), 7-25. doi:10.1300/J056v08n01_02
- Byers, E. S., & Heinlein, L. (1989). Predicting initiations and refusals of sexual activities in married and cohabiting heterosexual couples. *Journal of Sex Research*, *26*(2), 210-231. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Chan, D. K., & Fishbein, M. (1993). Determinants of college women's intentions to tell their partners to use condoms. *Journal of Applied Social Psychology*, *23*(18), 1455-1470. doi:10.1111/j.1559-1816.1993.tb01043.x
- Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology*, *28*(15), 1429-1464. doi:10.1111/j.1559-1816.1998.tb01685.x
- Conner, M., & Sparks, P. (1996). The theory of planned behaviour and health behaviours. In M. Conner, P. Norman, M. Conner & P. Norman (Eds.), *Predicting health behaviour: Research and practice with social cognition models*. (pp. 121-162). Maidenhead, BRK England: Open University Press.

- Dworkin, S. L., & O'Sullivan, L. (2005). Actual versus desired initiation patterns among a sample of college men: Tapping disjunctures within traditional male sexual scripts. *Journal of Sex Research, 42*(2), 150-158. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Fishbein, M., & Cappella, J. N. (2007). The role of theory in developing effective health communications. *Journal of Communication, 56*, 1-17. doi: 10.1111/j.1460-2466.2006.00280.x
- Fischtein, D. S., Herold, E. S., & Desmarais, S. (2007). How much does gender explain in sexual attitudes and behaviours? A survey of Canadian adults. *Archives of Sexual Behavior, 36*(3), 451-461. doi:10.1007/s10508-006-9157-9
- Gossmann, I., Julien, D., Mathieu, M., & Chartrand, E. (2003). Determinants of sex initiation frequencies and sexual satisfaction in long-term couples' relationships. *Canadian Journal of Human Sexuality, 12*(3), 169-181. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Gupta, G. R., & Weiss, E. (1993). Women's lives and sex: Implications for AIDS prevention. *Culture, Medicine and Psychiatry, 17*, 399-412. doi: 10.1007/BF01379307
- Haavio-Mannila, E., & Kontula, O. (2003). Single and double standards in Finland, Estonia, and St. Petersburg. *Journal of Sex Research, 40*(1), 36-49. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Hassan, L. M., & Shiu, E. M. K. (2007). Gender differences in low-risk single-occasion drinking: An application of the theory of planned behaviour. *International Journal of Consumer Studies, 31*(4), 317-325. doi:10.1111/j.1470-6431.2006.00555.x

- Hayes, A.F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408-420.
- Hogben, M., Byrne, D., & Hamburger, M. E. (1995). Coercive heterosexual sexuality in dating relationships of college students: Implications of differential male-female experiences. *Journal of Psychology & Human Sexuality*, 8(1), 69-78.
doi:10.1300/J056v08n01_05
- Hust, S. J. T., Brown, J. D., & L'Engle, K. L. (2008). Boys will be boys and girls better be prepared: An analysis of the rare sexual health messages in young adolescents' media. *Mass Communication and Society*, 11(1), 3-23. Retrieved from <http://www.tandf.co.uk/journals/HMCS>
- Jemmott, L. S., Jemmott, J. B., & Villarruel, A. M. (2002). Predicting intentions and condom use among Latino college students. *Journal of the Association of Nurses in AIDS Care*, 13, 59-69.,
- Jesser, C. J. (1978). Male responses to direct verbal sexual initiatives of females. *Journal of Sex Research*, 14(2), 118-128. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Lawrance, K., & Byers, E. S. (1998). Interpersonal exchange model of sexual satisfaction questionnaire. In C.M. Davis, W.L. Yarber, R. Bauserman, G. Schreer, & S.L. Davis (eds) *Handbook of Sexuality-related measure*. Thousand Oaks, CA: Sage
- Lawrance, K., Taylor, D., & Byers, E.S. (1996). Differences in men's and women's global, sexual, and ideal-sexual expressiveness and instrumentality. *Sex Roles*, 34(5-6), 337-357. doi: 10.1007/BF01547806

- Littleton, H. L., Axsom, D., & Yoder, M. (2006). Priming of consensual and nonconsensual sexual scripts: An experimental test of the role of scripts in rape attributions. *Sex Roles, 54*(7), 557-563. doi:10.1007/s11199-006-9017-z
- McCormick, N. B. (1979). Come-ons and put-offs: Unmarried students' strategies for having and avoiding sexual intercourse. *Psychology of Women Quarterly, 4*(2), 194-211. doi:10.1111/j.1471-6402.1979.tb00708.x
- McCormick, N.B. (1987). Sexual scripts: Social and therapeutic implications. *Sexual and Relationship Therapy, 2* (1), 3-27. Retrieved from <http://www.informaworld.com/smpp/title~content=t713723519~db=all>
- McCormick, N. B. (2010). Preface to sexual scripts: social and therapeutic implications. *Sexual and Relationship Therapy, 25*, (1), 91-95. doi: 10.1080/14681990903563707
- McCormick, N. B., Brannigan, G. G., & LaPlante, M. N. (1984). Social desirability in the bedroom: Role of approval motivation in sexual relationships. *Sex Roles, 11*(3), 303-314. doi:10.1007/BF00287522
- McNulty, J. K., & Fisher, T. D. (2008). Gender differences in response to sexual expectancies and changes in sexual frequency: A short-term longitudinal study of sexual satisfaction in newly married couples. *Archives of Sexual Behavior, 37*(2), 229-240. doi:10.1007/s10508-007-9176-1
- Metts, S., & Spitzberg, B. H. (1996). Sexual communication in interpersonal contexts: A script-based approach. In B. R. Burleson, & B. R. Burleson (Eds.), *Communication yearbook 19*. (pp. 49-91). Thousand Oaks, CA US: Sage Publications, Inc.

- Milhausen, R. R., & Herold, E. S. (1999). Does the sexual double standard still exist? perceptions of university women. *Journal of Sex Research, 36*(4), 361-368.
Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Molla, M., Åstrøm, A. N., & Brehane, Y. (2007). Applicability of the theory of planned behavior to intended and self-reported condom use in a rural ethiopian population. *AIDS Care, 19*(3), 425-431. doi:10.1080/09540120600722692
- Muñoz-Silva, A., Sánchez-García, M., Nunes, C., & Martins, A. (2007). Gender differences in condom use prediction with theory of reasoned action and planned behaviour: The role of self-efficacy and control. *AIDS Care, 19*(9), 1177-1181. doi:10.1080/09540120701402772
- Ortiz-Torres, B., Williams, S. P., & Ehrhardt, A. A. (2003). Urban women's gender scripts: Implications for HIV prevention. *Culture, Health & Sexuality, 5*(1), 1-17. doi:10.1080/713804639
- O'Sullivan, L. F., & Byers, E. S. (1992). College students' incorporation of initiator and restrictor roles in sexual dating interactions. *Journal of Sex Research, 29*(3), 435-446. doi:10.1111/j.1471-6402.1998.tb00149.x
- Purnine, D. M., & Carey, M. P. (1997). Interpersonal communication and sexual adjustment: The roles of understanding and agreement. *Journal of Consulting and Clinical Psychology, 65*(6), 1017-1025. doi:10.1037/0022-006X.65.6.1017
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, and Computers, 36*, 717-731.

- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behaviour Research Methods, 40*, 879-891. doi:10.3758/BRM.40.3.879
- Preacher, K. J., & Leonardelli, G. J. (2001). Calculation for the Sobel test: an interactive calculation tool for mediation tests. Retrieved February 02, 2010 from <http://www.people.ku.edu/~preacher/sobel/sobel.htm>.
- Rosen, R. C., Taylor, J. F., & Leiblum, S. R. (1998) Brief Index of Sexual Functioning for Women. In C.M. Davis, W. L. Yarber, R. Bauserman, G. Schreer, & S. L. Davis (Eds.), *Handbook of Sexuality-Related Measures* (2nd ed). 275-280. London, UK: SAGE.
- Santilla, P., Wager, I., Witting, K., Harlaar, N., Jern, P., Johansson, A., ... Sandnabba, K. (2008). Discrepancies between sexual desire and sexual activity: gender differences and associations with relationship satisfaction. *Journal of Sex & Marital Therapy, 34*, 31-44. doi: 10.1080/00926230701620548
- Seal, D. W., & Ehrhardt, A. A. (2003). Masculinity and urban men: perceived scripts for courtship, romantic, and sexual interactions with women. *Culture, Health and Sexuality, 5* (4), 295-319. doi: 10.1080/136910501171698
- Sheeran, P., & Abraham, C. (2003). Mediator of moderators: Temporal stability of intention and the intention-behavior relation. *Personality and Social Psychology Bulletin, 29*(2), 205-215. doi:10.1177/0146167202239046
- Shen, B., McCaughy, N., & Martin, J. (2008). Urban adolescents' exercise intentions and behaviours: An exploratory study of a trans-contextual model. *Contemporary Educational Psychology, 33*(4), 841-858. doi:10.1016/j.cedpsych.2007.09.002

- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: Permanence and change. *Archives of Sexual Behavior*, *15*(2), 97-120. doi:10.1007/BF01542219
- Simon, W., & Gagnon, J. H. (1987). The sexual scripting of oral genital contacts. *Archives of Sexual Behavior*, *16*(1), 1-25. doi: 10.1007/BF01541838
- Tabachnick, B. G., & Fidell, L. S. (2001). Using multivariate statistics. Needham Heights, MA : Allyn & Bacon.
- Treboux, D., & Busch-Rossnagel, N. (1990). Social network influences on adolescent sexual attitudes and behaviours. *Journal of Adolescent Research*, *5*(2), 175-189. doi:10.1177/074355489052005
- Van De Ven, M. O. O., Engels, R. C. M. E., Otten, R., & Van Den Eijnden, R. J. J. M. (2007). A longitudinal test of the theory of planned behavior predicting smoking onset among asthmatic and non-asthmatic adolescents. *Journal of Behavioral Medicine*, *30*(5), 435-445. doi:10.1007/s10865-007-9119-2
- Villarruel, A. M., Jemmott, J. B. I.,II, Jemmott, L. S., & Ronis, D. L. (2004). Predictors of sexual intercourse and condom use intentions among Spanish-dominant Latino youth: A test of the planned behavior theory. *Nursing Research*, *53*(3), 172-181. doi:10.1097/00006199-200405000-00004
- Wang, R-H., Cheng, C-P., & Chou, F-H. (2007). A causal model of contraceptive intention and its gender comparison among Taiwanese sexually inexperienced adolescents. *Journal of Clinical Nursing*, *17* (7), 930-939. doi: 10.1111/j.1365-2702.2007.02088.x
- Zilbergeld, B., & Zilbergeld, G. (2004). Better than ever; Love and sex at midlife. Norwalk, CT US: Crown House Publishing Limited.

CHAPTER 3

OVERALL DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

The current research was conducted in order to explore sexual initiation behaviours within short-term heterosexual dating relationships. There has been little research in this area in the past. Thus, many of the findings are new. Ultimately, through the application of the TPB, the results shed light on the contemporary sexual script for sexual initiation behaviours as well as on psychosocial cognitive factors and sexual outcomes associated with these behaviours.

Past research has focused on classifying or quantifying sexual initiation behaviours (e.g., Jessor, 1978; LaPlante, McCormick, & Brannigan, 1980; McCormick, 1979; McCormick, Brannigan, & LaPlante, 1984). Based on the TPB, this dissertation provides a theory-based depiction of the contemporary sexual script for sexual initiation behaviours including both initiation behaviours and psychosocial cognitions related to behavioural enactment. In particular, consistent with the TPB, it demonstrated that the more favourable the perceived social norms and attitudes toward initiating and the greater perceived behavioural control over initiating, the stronger an individuals' intention will be to initiate sexual activities. In turn, stronger initiation intentions are likely to lead to more frequent sexual initiation behaviours. That is, sexual initiation intentions mediated the relationship between the psychosocial cognitions (i.e., perceived social norms and perceived behavioural control), and sexual initiation behaviours.

Consistent with past research (Blumstein & Schwartz, 1983; Byers & Heinlein, 1989; O'Sullivan & Byers, 1992), the TSS was reflected in the sexual script for initiation behaviours; that is, the men initiated more frequently and had stronger

intentions to initiate than did the women. These findings suggest there is still a double standard wherein being instrumental with respect to sexual activity is more acceptable for men than for women. However, the results suggest that although there are still gender differences within the interpersonal and cultural elements of the script (i.e., initiation intentions, behaviours, and perceived social norms), men and women do not differ with respect to the intrapersonal aspects of the script (i.e., attitudes, perceived behavioural control). This is consistent with other recent shifts in attitudes in North America that include positive attitudes toward women taking on more social, political, and economic roles previously reserved for men only (Ciabattari, 2001; Fan & Marini, 2000). Perhaps these shifts in more general gender roles have permeated the sexual script for sexual initiations at the intrapersonal level. Indeed, some research suggests that sexual attitudes have shifted such that attitudes towards women engaging in more instrumental behaviours are more positive than in the past (McCormick, 2010). However, it appears that positive attitudes have not yet extended to the interpersonal level -- that is, enacting these behaviours. This is in keeping with TPB research which demonstrates that changes in cognitive factors (e.g., attitudes) precede behaviour change (Ajzen, 1991). Future research may elucidate whether interpersonal aspects of the script for sexual initiations become more egalitarian in the future.

The current dissertation also clearly established a link between self and partner sexual initiation behaviours and the sexual satisfaction of male and female daters. Namely, the more frequently either an individual or his or her partner initiated sexual activity, the greater their sexual satisfaction. More frequent initiation likely results in more frequent sexual activity since, on average, dating partners respond positively to

most initiations (O'Sullivan & Byers, 1992). Thus, this finding is in keeping with past research which has found that engaging in sexual behaviours more frequently is related to greater sexual satisfaction within partners (e.g., Brody & Costa, 2009; McNulty & Fisher, 2008).

Directions for Future Research

There are a number of implications for future research that arise from these findings. First, much TPB research has examined behaviours that are enacted to avoid negative outcomes (e.g., using condoms to avoid contracting an STI), or which have long-term outcomes (e.g., exercising to avoid obesity, heart disease). The current study found that components of the TPB predicted more variance in sexual initiation behaviours than demonstrated in past research on sexual behaviours with negative or long-term outcomes. This may be due to the nature of the behaviour examined – that is, that sexual initiation behaviours are likely to lead to positive outcomes, such as engaging in the desired sexual activity. More research is needed using the TPB to predict other sexual behaviours with positive, short-term outcomes (e.g., engaging in oral sex) to confirm whether the TPB is stronger in predicting these behaviours than those enacted to avoid negative, long-term outcomes.

Second, the sexual scripts of daters in short-term relationships differ from those of couples in long-term relationships (Gagnon & Simon, 1987; Metts & Spitzberg, 1996). That is, the sexual scripts of short-term dating couples are changing and evolving. However, those of long-term couples are generally well-established and are less influenced by sociosexual stereotypes (Gagnon & Simon, 1987; Gurrero & Anderson, 2000; McCormick, 2010; Metts & Spitzberg, 1996). As such, it is likely that

the TPB model better predicts the sexual initiation intentions and initiation behaviours of individuals in short-term than in long-term relationships. That is, the intentions of short-term daters, who are in the process of developing their idiosyncratic scripts, may be more vulnerable to influence by perceived social norms, attitudes, and perceived behavioural control than those of individuals in long-term relationships. The intentions of those in long-term relationships are likely formed according to their idiosyncratic sexual script (e.g., "*My partner and I are always sexually active on Wednesday nights. It is Wednesday. I intend to initiate sexual activity tonight.*"). Similarly, initiation intentions may be more strongly related to initiation behaviours for individuals in short-term than in long-term relationships. As the sexual scripts of those in long-term relationships are generally fixed, it is likely that, at least some of the time, sexual activities may be initiated within these couples based on habit or routine regardless of whether an actual intention to initiate is concretely formed. Conversely, short-term couples do not have a well-established sexual script. Thus, it is likely that initiation intentions are particularly important to the enactment of initiation behaviours of individuals in short-term relationships because these goal-directed cognitions help to transition thoughts regarding initiating into actual behaviours (Ajzen, 1991). Therefore, research is needed to determine whether the TPB model predicts the sexual initiation intentions and behaviours of individuals in long-term relationships. In addition, longitudinal research is needed to determine whether the strength of the relationship between the determinants of intentions and initiation intentions, and initiation intentions and initiation behaviours decreases over the duration of the relationship.

Third, the TPB explained 39% of the variance in initiation behaviours. This indicates that other factors external to the model are also important to the enactment of sexual initiation behaviours. Building on the TPB, in the Integrative Model of Behaviour Prediction Fishbein (2000) suggested that behaviour enactment is influenced not only by behavioural intentions, but also by adequate skills and lack of environmental constraints. Indeed, research suggests that greater competence in performing a target behaviour is related to more frequent enactment of the behaviour (Ajzen, 1991; Armitage & Conner, 2001). Furthermore, Armitage and Conner (2001) concluded in their metanalytic review that, no matter how strongly an intention is held, the enactment of a behaviour is at least partially determined by environmental constraints. For example, even if an individual had a strong intention to initiate sexual activity with their partner and had the necessary skills to do so, environmental constraints such as lack of an appropriate, private location to engage in sexual activities could prevent them from initiating. In keeping with Fishbein's viewpoint, future research on sexual initiations needs to assess not only the strength of initiation intentions, but also actual initiation competence (e.g., partners' reports of an individual's ability to successfully initiate sexual activity), and any potential environmental constraints that may interfere with enacting initiation behaviours. In addition, there may be factors not captured by the Integrative Model of Behaviour Prediction that influence the frequency with which individuals initiate sexual activities with their partners. For example, research has shown that dyadic adjustment influences the frequency of sexual initiation behaviours (Byers & Heinlein, 1989; Gossman, Julien, Mathieu & Chartrand., 2003). Also, degree of satisfaction with one's own body is positively related to the quantity and quality of sexual activities as well as

frequency of sexual initiation behaviours (Cash & Pruzinsky, 1990; Gossman et al., 2003). Future research should determine whether any of these variables add to the prediction of sexual initiation behaviours over and above the variables in the TPB.

Fourth, engaging in any sexual activity begins with an initiation followed by a response from a partner. Indeed, at each step along the chain of behaviours that leads to sexual activity there is an interaction between intrapersonal and interpersonal factors (Byers & Heinlein, 1989). However, the current study assessed only one member of a couple and did not assess the corresponding reports from participants' partners. As such, the study did not capture the reciprocal nature of sexual initiation behaviours. Thus, the present study may have accurately measured only the intrapersonal elements of the sexual script. That is, relying solely on the reports of one member of a dyad does not take into account the interaction between cognitive and behavioural aspects of initiations between partners. For example, it may be that the frequency of partner A's sexual initiations affects the strength of partner B's initiation intentions. Or, alternatively, it may be that the frequency of partner B's sexual initiations affects partner A's perceptions of their own competence in initiating. Indeed, it is likely that the perceived social norms, attitudes, perceived behavioural control, initiation intentions, and initiation behaviours of an individual's partner may influence his or her sexual initiation intentions and behaviour over and above their own psychosocial cognitions and initiation intentions. Interdyadic research that compares and contrasts aspects of the sexual script within couples would provide a more comprehensive understanding of sexual interactions.

Fifth, the current study assessed initiation behaviours concurrently with intentions rather than prospectively. That is, we collected data about future initiation intentions and past initiation behaviours rather than collecting data about behaviour for the time period about which we assessed behavioural intentions (i.e., the month following study participation). In their meta-analysis of TPB studies investigating condom use, Albarracin, Johnson, Fishbein, and Muellerleile (2001) found that intentions correlated more strongly with past behaviour than with future behaviour. The authors suggested that retrospective inferences about past behaviour may influence reports of intentions for future behaviour engagement. Thus, future research should assess behavioural intentions with respect to sexual initiations for a discreet period of time and then prospectively measure the observed sexual initiation behaviour over the study period. This will likely achieve a more accurate estimate of the relationship between intentions and behaviour.

Sixth, the current study, as with the majority of initiation research (see Dworkin & O'Sullivan, 2005 for an exception), used quantitative methods. Qualitative research would allow for a better understanding of the content and source of social messages men and women receive regarding initiating sexual activities, the attitudes they hold regarding outcomes of initiating, their perceptions of their ability to initiate, and their subjective experiences initiating sexual activities with their partners. For example, what are the messages that male and female daters perceive regarding sexual initiations? From whom do they receive these messages? Are messages from one source more important than messages from others? How do daters evaluate the outcomes of initiating? Are some outcomes more important to their evaluations than others? Are

there forms of initiation that daters feel more or less competent enacting (e.g., direct vs. indirect)? That is, it would be highly informative to interview a sample of daters (perhaps both short- and long-term) to explore the emergent themes in the content of their cognitions towards and descriptions of their sexual initiation behaviours with their partner.

Implications

The study findings may provide useful information to daters. Navigating the sexual script may be a point of tension for some dating couples as they work to establish their idiosyncratic script. Knowing normative information pertaining to sexual initiation behaviours may help couples who are struggling to arrive at a mutually satisfying script. That is, information about the contemporary sexual script for sexual initiation behaviours (e.g., the typical frequency of initiation behaviours, gender differences in initiation frequency, etc.) may help to normalize the experiences of daters and, thus reduce tension or performance anxieties related to sexual interactions. Furthermore, providing information regarding the importance of sexual initiation behaviours by both partners to sexual satisfaction may encourage some daters (particularly women) to initiate sexual activities with their partners more frequently. Finally, the current results emphasize the importance of acknowledging discrepancies between the intrapersonal and interpersonal aspects of the script for sexual initiation behaviours. That is, it may be important to validate the incongruence between internal attitudes and external behaviours as well as to provide awareness of the tendency of attitudes to change well before parallel behavioural enactment occurs.

Although the results are correlational and the direction of causation is unknown, the current findings may also provide useful information to therapists. Although participants in the present study were highly satisfied with their sexual and romantic relationship, the findings do have potential clinical implications. For example, some couples seek help for difficulties related to sexual initiation (Gossman et al., 2003; McCormick, 2010). Our study identified a number of psychosocial cognitive factors that are related to sexual initiation behaviours. Also, McCormick (2010) suggested that describing sexual interactions in terms of script theory may be useful for helping clients to describe, understand, and alter behaviour and experience within intimate relationships. Taken together, these findings suggest possible strategies to help women (or men) who want to do so to increase the frequency with which they initiate sexual activities with their partners. That is, clinicians could assess psychosocial cognitions regarding sexual initiations and possibly define these as targets for intervention. For example, for people who perceive negative social norms regarding initiation, therapists could discuss sociosexual norms such as the gendered responsibility in the sexual script, while at the same time encouraging clients to make their own choices to develop a satisfying idiosyncratic script (McCormick, 2010). For people who have negative attitudes towards initiating, therapists may discuss beliefs regarding outcomes of initiation. They may then help clients to dispute beliefs that are irrational or rigidly adhere to gendered responsibility of initiating (Jordan & McCormick, 1986 in McCormick, 2010). For people who do not perceive competence in their ability to initiate, therapists could mediate discussions wherein both partners describe how they would ideally like their partners to initiate sexual activities with them and then compare

this to how they actually initiate activities. Further discussions regarding the rewards of using particular strategies and actual attempts to use alternative initiation methods as homework may also be implemented (McCormick, 2010). In turn, changes in cognitions related to these interventions are likely to strengthen individuals' initiation intentions. These stronger intentions would likely lead to more frequent sexual initiations and would decrease the discrepancy between ideal and actual sexual scripts for initiation. It should be noted that in some instances failure to initiate is not related to factors contained within the scope of the current dissertation but rather occurs for other, valid reasons (e.g., sexual anxiety, interpersonal distress, relationship distress etc.). In these cases, resolution of the underlying problem would be a more appropriate mechanism for resolving sexual difficulties and increasing initiation frequency. Finally, as our findings delineate the cognitive, and behavioural aspects of sexual initiation behaviours, clinicians should communicate paradigms of sexuality that are dynamic and inclusive of a range of sexual behaviours.

Limitations

One limitation of the current study was that the participants were mainly young White adults from a mid-sized, Atlantic Canadian university. This limits the generalizability of our findings in two ways. First, it is difficult to know whether these results apply to people from other age groups. That is, cohort effects may influence the sexual scripts of adults of different ages. The social climate within which an individual matures sexually dictates social expectations about sexuality that influences their sexual behaviour (Daley, 2006). For instance, the experience of an individual who matured sexually in the 1920s when North America was moving towards 'liberal' erotic

expression would have been much different from someone who matured sexually during the 50s after World War II when a culture of sexual purity was prevalent (Daley, 2006). These sociocultural factors influence sexual behaviours and the sexual scripts that individuals enact (Daley, 2006). Thus, it is likely that scripts for sexual initiation behaviours vary across age groups.

Second, some of the largest variations in sexual behaviours are attributable to cultural differences (Meston & Ahrold, 2010; Molla, Åstrøm, & Brehane, 2007). For example, Chinese-Canadian individuals demonstrate more conservative attitudes, less knowledge, and less sexual experience compared to Euro-Canadians (Higgins & Sun, 2007; Woo, Brotto, & Gorzalka, 2009). Further, gender differences related to sexuality are more pronounced in many ethnocultural communities than in mainstream Canadian culture (Cappon et al., 1996; Maticka-Tyndale et al., 1996). Thus, it is not clear whether our results apply to people from different cultures.

In addition, although overall the current sample size was substantial, there were half as many men in the sample as there were women. More equal cell sizes tend to produce more reliable results as the correlation coefficients tend to be more reliable (Tabachnick & Fidell, 2001). Finally, although support was found for the TPB, the observed relationships are correlational and, as such, the direction of these relationships cannot be determined. For example, it may be that the frequency with which an individual initiates sexual behaviours predicts the strength with which they intend to do so in the future. Alternatively, it may be that individuals with strong initiation intentions perceive positive social norms because they only attend to social messages that are positive toward initiating.

Conclusion

The current dissertation extends the limited research on sexual initiation behaviours in several ways. First, a large amount of sexuality research and literature has focused on sexual intercourse and has largely overlooked the sequence of behaviours that lead to sexual activity. However, the current results clearly established the importance of sexual initiation behaviours to the sexual satisfaction of daters. This finding calls attention to the importance of assessing multiple aspects of couples' sexual lives rather than defining sexual functioning in terms of conventional definitions of sexual activity (i.e., intercourse), which provides only a limited understanding of couples' sexuality.

Second, past sexual initiation research focused mainly on categorizing initiation behaviours (e.g., direct, indirect etc.) and the majority of this was conducted more than two decades ago. In contrast, the current investigation was theory-driven and delineated the contemporary sexual script for initiation behaviours. Furthermore, it identified psychosocial cognitive factors that are associated with the frequency with which individuals engage in sexual initiation behaviours. Thus, the current dissertation provides a more textured, holistic picture of sexual initiation behaviours and underscores the importance of recognizing the multidimensional nature of sexual initiation behaviours.

Third, the current findings extend TPB literature in that they demonstrate support for the validity of the TPB in predicting young adults' engagement in sexual behaviours. Further, they demonstrate the (perhaps improved) predictive validity of the model in

measuring behaviours with positive, short-term outcomes – an area of research which has been overlooked to date.

Finally, the current findings are important for clinical purposes. First, describing sexual interactions in terms of script theory may be useful for helping individuals and clients to describe, understand, and alter behaviour and experience within intimate relationships (McCormick, 2010). That is, illumination of the contemporary sexual script for initiations may be useful for providing normative information to daters who are struggling to establish a mutually pleasing sexual script. Information about the contemporary sexual script for sexual initiation behaviours (e.g., the typical frequency of initiation behaviours, gender differences in initiation frequency, etc.) may help to normalize the experiences of daters and, thus reduce tension or performance anxieties related to sexual interactions.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. doi:10.1016/0749-5978(91)90020-T
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499. doi:10.1348/014466601164939
- Blumstein, P., & Schwartz, P. (1983). *American couples: Money, work, sex*. New York: William Morrow.
- Brody, S., & Costa, R. M. (2009). Satisfaction (sexual, life, relationship, and mental health) is associated directly with penile and vaginal intercourse, but inversely with other sexual behavior frequencies. *Journal of Sexual Medicine*, 6(7), 1947-1954. doi:10.1111/j.1743-6109.2009.01303.x
- Byers, E. S., & Heinlein, L. (1989). Predicting initiations and refusals of sexual activities in married and cohabiting heterosexual couples. *Journal of Sex Research*, 26(2), 210-231. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Cash, T., & Pruzinsky, T. (1990). *Body images: Development, defiance, and change*. New York, NY US: Guilford Press.
- Cappon, P., Adrien, A., Godin, G., Mason Singer, S., Maticka-Tyndale, E., Willms, D., & Daus, T. (1996). HIV/AIDS in the context of culture: Selection of ethnocultural communities for study in Canada. *Canadian Journal of Public Health*, 87 (1), S11-S25.

- Ciabattari, T. (2001). Changes in men's conservative gender ideologies: Cohort and period influences. *Gender and Society, 15*, 574-591.
doi: 10.1177/089124301015004005
- Daley, K. A. (2006). The social origins of female sexual interest: Sexual scripts across the life course. Dissertation abstracts international section A: Humanities and Social Sciences, 66 (11-A), pp. 4207.
- Dworkin, S. L., & O'Sullivan, L. (2005). Actual versus desired initiation patterns among a sample of college men: Tapping disjunctures within traditional male sexual scripts. *Journal of Sex Research, 42*(2), 150-158. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Fan, P., & Marini, M. M. (2000). Influences on gender-role attitudes during the transition to adulthood. *Social science research, 29*, 258-283.
doi:10.1006/ssre.1999.0669
- Fishbein, M. (2000). The role of theory in HIV prevention. *AIDS Care, 12*, 273-278.
doi: 10.1080/09540120050042918.
- Gagnon, J. H., & Simon, W. (1987). The sexual scripting of oral genital contacts. *Archives of Sexual Behavior, 16*(1), 1-25. doi:10.1007/BF01541838
- Gossmann, I., Julien, D., Mathieu, M., & Chartrand, E. (2003). Determinants of sex initiation frequencies and sexual satisfaction in long-term couples' relationships. *Canadian Journal of Human Sexuality, 12*(3), 169-181. Retrieved from <http://www.sieccan.org/cjhs.html>

- Guerrero, L.K., & Anderson, P. A. (2000). Emotion in close relationships. In C. Hendrick & S. S. Hendrick (Eds.). *Close relationships: A sourcebook* (pp. 171-186). Thousand Oaks, CA:Sage.
- Higgins, L. T., & Sun, C. (2007). Gender, social background and sexual attitudes among Chinese students. *Culture, Health & Sexuality*, 9 (1), 31-42.
doi: 10.1080/13691050600963914
- Jesser, C. J. (1978). Male responses to direct verbal sexual initiatives of females. *Journal of Sex Research*, 14(2), 118-128. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Jordan, T. J., & McCormick, N.B. (1986). Development of a measure of irrational belief about sex, Annual Meeting of the Society for the Scientific Study of Sex, November, 1986, St. Louis, Missouri.
- LaPlante, M. N., McCormick, N., & Brannigan, G. G. (1980). Living the sexual script: College students' views of influence in sexual encounters. *Journal of Sex Research*, 16(4), 338-355. Retrieved from http://www.sexscience.org/publications/index.php?category_id=439
- Lawrance, K., Taylor, D., & Byers, E.S. (1996). Differences in men's and women's global, sexual, and ideal-sexual expressiveness and instrumentality. *Sex Roles*, 34(5-6), 337-357. doi: 10.1007/BF01547806
- Maticka-Tyndale, E., Godin, G., LeMay, G., Adrien, A., Mason-Singer, S., Willms, D., et al. (1996). Canadian ethnocultural communities facing AIDS: Overview and summary of survey results from phase III. *Canadian Journal of Public Health*, 87 (supp.1), S38-S43.

- McCormick, N. B. (1979). Come-ons and put-offs: Unmarried students' strategies for having and avoiding sexual intercourse. *Psychology of Women Quarterly*, 4(2), 194-211. doi:10.1111/j.1471-6402.1979.tb00708.x
- McCormick, N. B. (2010). Sexual scripts: social and therapeutic implications. *Sexual and Relationship Therapy*, 25, 96-120.
- McCormick, N. B., Brannigan, G. G., & LaPlante, M. N. (1984). Social desirability in the bedroom: Role of approval motivation in sexual relationships. *Sex Roles*, 11(3), 303-314. doi:10.1007/BF00287522
- McNulty, J. K., & Fisher, T. D. (2008). Gender differences in response to sexual expectancies and changes in sexual frequency: A short-term longitudinal study of sexual satisfaction in newly married couples. *Archives of Sexual Behavior*, 37(2), 229-240. doi:10.1007/s10508-007-9176-1
- Meston, C. M., & Ahrold, T. (2010). Ethnic, gender, and acculturation influences on sexual behaviours. *Archives of Sexual Behavior*, 39, (1), 179-189.
doi: 10.1007/s10508-008-9415-0
- Metts, S., & Spitzberg, B. H. (1996). Sexual communication in interpersonal contexts: A script-based approach. In B. R. Burleson, & B. R. Burleson (Eds.), *Communication yearbook 19*. (pp. 49-91). Thousand Oaks, CA US: Sage Publications, Inc.
- Molla, M., Åstrøm, A. N., & Brehane, Y. (2007). Applicability of the theory of planned behavior to intended and self-reported condom use in a rural ethiopian population. *AIDS Care*, 19(3), 425-431. doi:10.1080/09540120600722692

- O'Sullivan, L. F., & Byers, E. S. (1992). College students' incorporation of initiator and restrictor roles in sexual dating interactions. *Journal of Sex Research, 29*(3), 435-446. doi:10.1111/j.1471-6402.1998.tb00149.x
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Needham Heights, MA : Allyn & Bacon.
- Woo, J. S. T., Brotto, L. A., & Gorzalka, B. B. (2009). The role of sexuality in cervical screening among Chinese women. *Health Psychology, 28*, (5), 598-604.
doi: 10.1037/a0015986

APPENDIX A

Recruitment Materials and Informed Consent

Recruitment Message for Introductory Psychology Students

Are you in a heterosexual dating relationship? Have you been dating your partner for between 3 and 18 months? Have you seen your partner on at least 3-4 days per week over the past month?

If so, you are eligible to participate in an exciting study! The researchers, Deanne Simms, graduate student in Psychology, and Dr. Sandra Byers, are conducting research about dating relationships.

Specifically, our study is all about your sexual attitudes and experiences with your dating partner. Our study is an online survey which has questions about your romantic sexual relationship with your current dating partner. It will take about 30 minutes to complete and for your participation you will receive **one bonus point!**

Recruitment Poster

Are you in a heterosexual dating relationship?

Been dating your partner for **between 3 and 18 months**?

Have you seen your partner at least 3-4 days per week over the past month?

If you answered **YES** to these questions then you're eligible to participate in **an exciting research study!**

Deanne Simms, graduate student in Psychology and Dr. Sandra Byers **WANT YOU** to fill out our online study about your sexual attitudes and experiences with your current dating partner.

The survey only takes approximately 30 minutes to complete and by participating you'll have the chance to enter a raffle to win **one of six \$25 VISA gift cards!** To find out more about the study or to participate visit:

<https://survey.psyc.unb.ca/Survey.aspx?s=8d3e563998fd437ea577b06f7a1526b8>

Email and E-Bulletin Recruitment Advertisement

Are you in a heterosexual dating relationship? Have you been dating your partner for between 3 and 18 months? Have you seen your partner on at least 3-4 days per week over the past month?

If so, you are eligible to participate in an exciting study! The researchers, Deanne Simms, graduate student in Psychology and Dr. Sandra Byers are conducting research about dating relationships.

Specifically, our study is all about your sexual attitudes and experiences with your dating partner. If you participate, you will be asked to complete a survey about your romantic and sexual relationship with your current dating partner. The survey will only take approximately 30 minutes. Then, you will have the option to be entered into a raffle to win one of **six \$25 VISA gift certificates!!**

You can access the consent form and survey at:

<https://survey.psyc.unb.ca/Survey.aspx?s=8d3e563998fd437ea577b06f7a1526b8>

Thank you for your interest!

Informed Consent Form

People between 18 and 25 years of age who live in Canada are invited to participate in an online survey investigating the initiation of sexual activities within couples. This study will provide important information to enhance our understanding of how men and women in dating relationships navigate sexual interactions and how this plays a role in individuals' sexuality. It is being conducted by Deanne Simms, graduate student in Psychology, and Sandra Byers, PhD Professor in the Department of Psychology, at the University of New Brunswick. For UNB students in Introductory Psychology, if you complete and submit the survey you can choose to either receive **one half (0.5) bonus point** towards your course credit or you can choose to be entered in a raffle to win a **\$25 VISA gift card**. If you are not an Introductory Psychology student, you will have the option of entering an online raffle to win a **\$25 VISA gift card! Odds are 1 in 27 or better that you'll win for the first 160 participants!**

If you participate in this study, you will be asked to complete an online survey that takes about 30 minutes to complete. We suggest that you complete the survey in a private setting and at a time that you will not be distracted. You will be asked questions about your current dating relationship, sexual attitudes and sexual behaviours. You will also be asked about the initiation of sexual behaviours between yourself and your partner. Also, you can withdraw from the study at any point without penalty and your responses will not be saved until you click the 'submit' button at the end of the survey.

Participation in the survey is confidential and anonymous and no identifying information will be reported from the results of the online survey. Should you choose to participate in the raffle or wish to receive a summary of study results, you will be led to another secure site where you will be asked to enter your contact information. This supplementary site is separate from the study site and so this information will not be connected to your survey responses at any time. That is, your contact information that you provide at the end of the survey is stored separately from your survey data to ensure your anonymity.

All data collected from this study will be stored in a secure database on a secure server hosted by the University of New Brunswick. Only the researchers involved in this study will have access to the raw data gathered from the study and data will be summarized in any resulting reports and will not include any personal information.

Participation in the study is **completely voluntary**. If at any time you feel you do not wish to continue for any reason, you are free to withdraw **without penalty**. Your survey responses are not submitted to the researchers until you click the 'submit' button at the end of the survey. Unfortunately, you will not be able to enter the raffle to win a **\$25 VISA gift card** until you submit your completed (or blank) survey at the end of the process.

POTENTIAL BENEFITS: The results of this study will provide information about how daters navigate and initiate sexual activities with their partners and how these behaviours potentially

contribute to daters' sexual well-being.

POTENTIAL RISK AND DISCOMFORT: We do not anticipate that you will experience any discomfort during the study. However, if you do feel uncomfortable, you can withdraw from the study at any time or choose not to answer any questions without penalty. If you do experience discomfort or have questions, you will find a list of resources when you discontinue the survey.

QUESTIONS: If you have any questions before, during, or after the study, please feel free contact the researchers by email at d.simms@unb.ca.

This project is on file with the Research Ethics Board, University of New Brunswick. If you have any questions or concerns about your rights or treatment as a participant, you may contact the Chair of the Department of Psychology Ethics Committee, Dr. David Clark (psycethics@unb.ca), or you may contact Deanne Simms (d.simms@unb.ca) or Dr. Sandra Byers (byers@unb.ca), 458-7696 for more information.

NOTE* If you are in PSYC 1000 at UNB and wish to receive 0.5 course credit INSTEAD of entering the raffle, you must register for the study through EPS.

I AM BETWEEN 18 AND 25 YEARS OF AGE, LIVE IN CANADA AND
HEREBY CONSENT TO PARTICIPATE IN THE STUDY

I DO NOT CONSENT TO PARTICIPATE
IN THE STUDY

APPENDIX B
Survey Instrument

Thank you for your interest in participating in our survey. We recommend that you complete this survey in a private setting and at a time when you won't be distracted for about 30 minutes.

What is your gender?

- Male
- Female
- Transgender

Please enter your current age (in numbers)

Are you a student?

- Yes
- No

If yes, what school, college, or university do you attend?

How did you hear about this study? *Please choose one of the following:*

- EPS at UNB
- E-news bulletin
- Posters
- Facebook
- Kijiji
- Craigslist
- Website advertising research
- Word of mouth/a friend
- No response

Which best describes your race/ethnicity? *Please choose one of the following:*

- Aboriginal/ First Nations
- African Canadian / Black
- Asian Canadian / Pacific Islander
- Caucasian / White
- Hispanic/ Latino/ Latina
- Biracial/ Multicultural
- Other
- No response

What city do you live in?

What is your current relationship status?

- Married
- Living together
- Dating exclusively
- Dating but not exclusively
- Not currently in a relationship

How long have you been in a relationship with your current partner (in months)?

Is your current dating partner

- Male
- Female
- Transgender

Which of the following BEST describes your sexual *orientation*?

- Heterosexual
- Bisexual
- Lesbian
- Gay
- Unlabelled
- Unsure
- No response

Choose which BEST describes your current sexual *experience*.

- Experience only with women
- Experience more with women than with men
- Experience equally with both sexes
- Experience more with men than women
- Experiences only with men
- No response

Choose which BEST describes your current feelings of sexual *attraction*.

- Attracted only to women
- Attracted more to women than men
- Attracted equally to both sexes
- Attracted more to men than women
- Attracted only to men
- No response

Overall, how would you describe your SEXUAL relationship with your partner?

Bad							Good
1	2	3	4	5	6	7	
Unpleasant							Pleasant
1	2	3	4	5	6	7	
Negative							Positive
1	2	3	4	5	6	7	
Unsatisfying							Satisfying
1	2	3	4	5	6	7	
Worthless							Valuable
1	2	3	4	5	6	7	

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

Bad							Good
1	2	3	4	5	6	7	
Unpleasant							Pleasant
1	2	3	4	5	6	7	
Negative							Positive
1	2	3	4	5	6	7	
Unsatisfying							Satisfying
1	2	3	4	5	6	7	
Worthless							Valuable
1	2	3	4	5	6	7	

We are interested in learning more about initiation of sexual activity between you and your dating partner. By **initiation** we mean acting in ways to show (verbally or non-verbally) interest in engaging in sexual activities when no such activities are currently underway. By **sexual activity** we really mean sexual interactions with your partner that involve genitally oriented behaviours (that is, oral or manual genital fondling, anal intercourse or vaginal intercourse etc.).

Over the past month, about how frequently did YOU initiate sexual activities with your partner? (*Note, we want to know how often you initiated regardless of your partner's response or whether sex occurred)

- Not at all
- Once
- 2 or 3 times
- Once a week
- 2 or 3 times per week
- Once a day
- More than once a day

Over the past month, how frequently did YOUR PARTNER initiate sexual activities with you? (*Note, we want to know how often your partner initiated regardless of your response or whether sex occurred)

- Not at all
- Once
- 2 or 3 times
- Once a week
- 2 or 3 times per week
- Once a day
- More than once a day

Now we would like to know more about your **intentions** to initiate sexual activities with your partner. Intentions are thoughts or plans to perform a certain behaviour in the future.

In the next month when you are interested in engaging in sexual activities with your partner how likely is it that YOU will initiate sexual activities with them?

- Extremely unlikely
- Very unlikely
- Somewhat unlikely
- Unsure
- Somewhat likely
- Very likely
- Extremely likely

How strong is your intention to initiate sexual activities with your partner in the next month?

- Very weak intention
- Weak intention
- Somewhat weak intention
- Unsure
- Somewhat strong intention
- Strong intention
- Very strong intention

In the next month, how frequently do YOU intend to initiate sexual activities with your partner?

- Not at all
- Once
- 2 or 3 times
- Once a week
- 2 or 3 times per week
- Once a day
- More than once a day

Now we'd like to know what you think other people would think about you initiating sexual activities with your partner. Remember, by **initiation** we mean acting in ways to show (verbally or non-verbally) that you are interested in engaging in sexual activities with your partner when no such activities are currently underway. By **sexual activity** we really mean sexual interactions with your partner that involve genitally oriented behaviours (that is, oral or manual genital fondling, anal intercourse or vaginal intercourse etc.).

Most of the people who are important to me think I should initiate sexual activities with my partner

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

To what extent do you think the following people would approve or disapprove of you initiating sexual activities with your partner?

	Strongly Disapprove	Disapprove	Neither Approve nor Disapprove	Approve	Strongly Approve
Your partner					
Your same-sex friends					
Your parents					

Now we would like to know about how you experience sexual activities with your current dating partner. Please respond to each of the items with either Never, Rarely, Some of the time, Most of the time, All of the time. Please select the box which corresponds to your response for each item.

	Never	Rarely	Some of the time	Most of the time	All of the time
1. I feel uncomfortable talking during sexual activities					
2. I feel that I am shy when it comes to sexual activities					
3. I approach my partner for sexual activities when I desire them					
4. I think I am open with my partner about my sexual needs					
5. I enjoy sharing my sexual fantasies with my partner					
6. I feel uncomfortable talking to my friends about sexual activities					
7. I communicate my sexual desires to my partner					
8. It is difficult for me to touch myself during sexual activities					
9. It is hard for me to say no even when I do not want to engage in sexual activities					
10. I am reluctant to describe myself as a sexual person					
11. I feel uncomfortable telling my partner what feels good					
12. I speak up for my sexual feelings					
13. I am reluctant to insist that my partner satisfy me					
14. I find myself engaging in sexual					

activities even when I do not really want to					
15. When a technique does not feel good, I tell my partner					
16. I feel comfortable giving sexual praise to my partner					
17. It is easy for me to discuss sexual activities with my partner					
18. I feel comfortable initiating sexual activities with my partner					
19. I find myself doing sexual things that I do not like					
20. Pleasing my partner is more important than my pleasure					
21. I feel comfortable telling my partner how to touch me					
22. I enjoy masturbating myself to orgasm					
23. If something feels good, I insist on doing it again					
24. It is hard for me to be honest about my sexual feelings					
25. I try to avoid discussing the issue of sex					

Now we'd like to know more about how you think of yourself as a sexual partner. Please indicate how much you agree or disagree with the following statements by clicking on the box that corresponds to your response.

	Strongly Disagree	Disagree	Disagree or Agree	Agree	Strongly Agree
1. I am a good sexual partner.	1	2	3	4	5
2. I would rate my sexual skill quite highly.	1	2	3	4	5
3. I am better at sex than most other people.	1	2	3	4	5
4. I sometimes have doubts about my sexual competence.	1	2	3	4	5
5. I am not very confident in my sexual encounters.	1	2	3	4	5
6. I think of myself as a very good sexual partner.	1	2	3	4	5
7. I would rate myself low as a sexual partner.	1	2	3	4	5
8. I am confident about myself as a sexual partner.	1	2	3	4	5
9. I am not very confident about my sexual skills.	1	2	3	4	5
10. I sometimes doubt my sexual competence.	1	2	3	4	5

Now we would like to learn more about your thoughts and feelings about men and women engaging in sexual activity. Please read each statement carefully and then rate each statement according to how much you agree with it by selecting a response ranging from strongly disagree to strongly agree. An answer is correct to the extent it truly reflects how much you agree with it.

	Strongly Disagree	Disagree	Neither Agree nor disagree	Agree	Strongly Agree
1. It's worse for a woman to sleep around than it is for a man.					
2. It's best for a guy to lose his virginity before he's out of his teens.					
3. It's okay for a woman to have more than one sexual relationship at the same time.					
4. It is just as important for a man to be a virgin when he marries as it is for a woman.					
5. I approve of a 16-year-old girl's having sex just as much as a 16-year-old boy's having sex.					
6. I kind of admire a girl who has had sex with a lot of guys.					
7. I kind of feel sorry for a 21-year-old woman who is still a virgin.					
8. A woman's having casual sex is just as acceptable to me as a man's having casual sex.					
9. It's okay for a man to have sex with a woman with whom he is not in love.					
10. I kind of admire a guy who had sex with a lot of girls.					
11. A woman who initiates sex is too aggressive.					
12. It's okay for a man to have more than one sexual relationship at a time.					
13. I question the character of a woman who has had a lot of sexual partners.					
14. I admire a man who is a virgin when he gets married.					
15. A man should be more sexually experienced than his wife.					

16. A girl who has sex on a first date is "easy."					
17. I kind of feel sorry for a 21-year-old man who is still a virgin.					
18. I question the character of a guy who has had a lot of sexual partners.					
19. Women are naturally more monogamous (inclined to stick with one partner) than are men.					
20. A man should be sexually experienced when he gets married.					
21. A guy who has sex on a first date is "easy."					
22. It's okay for a woman to have sex with a man she is not in love with.					
23. A woman should be sexually experienced when she gets married.					

**SUBMIT
SURVEY!**

APPENDIX C

Debriefing Materials

Debriefing Form

Thank you for participating in our study!

There has been much research interest in the frequency of sexual intercourse within heterosexual couples (Baumeister, Cantese & Vohs, 2001; Brody & Costa, 2009; McNulty & Fisher, 2008). However, sexual intercourse is just the last in a long list of steps that take place in order for sexual activity to occur. Sexual activities begin with an intention to initiate, followed by an actual initiation, and a positive response from the initiator's partner. So, because they are the starting point in a chain of behaviours that are crucial to relationship and sexual satisfaction (Purnine & Carey, 1997), it is important to learn more about sexual initiation behaviours. It is particularly valuable to understand sexual initiations within dating relationships. As daters navigate sexual interactions, they are also in the process of developing a personal sexual script between themselves and their partners. The initiation of sexual activity may be particularly important to daters as they begin to learn about each other's sexual likes and dislikes and work to formulate a sexual script.

Our own research has demonstrated that men initiate sexual activities with their partner more frequently than do women (O'Sullivan & Byers, 1992, see Byers & Heinlein, 1989 for a similar study within long-term partners). Unfortunately, these studies were conducted more than 20 years ago and the sexual scripts of daters have changed since then (Lawrance, Taylor & Byers, 2001; Williams & Ehrhardt, 2003). Therefore, this study examined daters' experience with initiating sexual activities with their partner as well as how they perceive engaging in these behaviours.

If you are interested in learning more about research about initiating sexual behaviours within partners, the following articles are suggested for further reading:

O'Sullivan, L. F., & Byers, E. S. (1992). College students' incorporation of initiator and restrictor roles in sexual dating interactions. *Journal of Sex Research*, 29, 435-446.

Byers, E. S., & Heinlein, L. (1989). Predicting initiations and refusals of sexual activities in married and cohabiting heterosexual couples. *Journal of Sex Research*, 26, 210-231.

Answering questions about sex and sexuality may raise some emotions in you. If you would like to talk to someone about your thoughts and feelings on the subject you should contact **CHIMO** helpline at **1-800-667-5005**. If you want to find more information concerning sexuality, the following websites are great resources and provide great information on a wide range of sexuality-related topics.

www.sexualityandu.ca

This website is administered by the Society of Obstetricians and Gynaecologists of Canada. The site provides credible and up-to-date information and education pertaining to sexual health topics.

www.sexualhealth.com

The Sexual Health Network provides easy access to sexuality information, education, support, counselling, therapy, healthcare, as well as products and resources for people seeking information and supports.

Thank you once again for your participation in our survey! If you have any questions or concerns please contact Deanne Simms, graduate student in Psychology at UNB (d.simms@unb.ca) or Dr. Sandra Byers (byers@unb.ca), chair of the Department of Psychology at UNB (458-7697). Any concerns about this study may be addressed to Dr. David Clark (psycethics@unb.ca), Chair of the Department of Psychology Ethics Committee.

INTRODUCTORY PSYCHOLOGY
STUDENTS PLEASE CLICK HERE

OTHER STUDENTS PLEASE CLICK
HERE

Contact Information Page

Thank you for participating in our study!

If you would like to participate in the raffle to win **one of six \$25 VISA gift cards** please enter your contact information below so that we may contact you at a later date if you are one of the lucky winners!

Please note that the information you enter on this page will in no way be connected to your responses on the survey you have just completed!

Name:

Student number:

E-mail address:

I would like to receive summary results of the current study

Thank you once again for your interest in our research and for participating in our study!

CURRICULUM VITAE

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Universities Attended: Honours Bachelor of Arts in Psychology, Queen's University
 2001-2005
 University of New Brunswick, 2005-Present

Publications:

- Simms, D., C., Gibson, K., & O'Donnell, S. (in press). To use or not to use: Clinician's Perceptions of Telemental Health. *Canadian Psychology*.
- Simms, D. C., & Byers, E. S. (2009). Interpersonal perceptions of ideal sexual frequency within dating partners. *Canadian Journal of Human Sexuality, 18 (1-2)*, 15-25.
- Simms, D.C., O'Donnell, S., & Molyneaux, H. (2009). The use of virtual reality in the treatment of post-traumatic stress disorder. *Lecture Notes in Computer Science, Virtual and Mixed Reality, 5622*, 615-624.
- O'Donnell, S., Perley, S., Simms, D.C., & Hancock, B. R. (2009). Video communication roadblocks facing remote indigenous communities. *Technology and Society, (IEEE), 28 (2)*, 16-22.
- Simms, D. C., Fournier, H., Molyneaux, H., & O'Donnell, S. (2008). Perspective taking and attitude change among adolescent participants using video technologies: a case study. Proceedings of the International Communications Association (ICA) Annual Conference, Chicago, Illinois, USA.
- O'Donnell, S., Perley, S., & Simms, D. C. (2008). Challenges for video communications in remote and rural communities. Proceedings of the IEEE International Symposium on Technology and Society (IEEE ISTAS 08), Fredericton, New Brunswick, Canada.
- Molyneaux, H., Gibson, K., Simms, D. C., O'Donnell, S., Oakley, P., Kondratova, I., McIver, W., Lumsden, J., Fournier, H., & Hagerman, V. (2009). Information and communication technologies for assessing and treating Operational Stress Injury (OSI). Fredericton: National Research Council. ERB-1159. NRC 50740.

- Molyneaux, H., O'Donnell, S., Oakley, P., Kondratova, I., Lumsden, J., McIver, Gibson, K., Simms, D., W., Milliken, M., Pinelle, D., and Hagerman, V. (2009). *Patient Portal Technologies*. Fredericton: National Research Council. 110 pages. ERB-1164. NRC 50795.
- Simms, D. C., Milliken, M., O'Donnell, S., Fournier, H., & Emond, B. (2008). *BVCam in the Virtual Classroom*. Fredericton: National Research Council. ERB-1154. NRC 50411.
- Simms, D. C., O'Donnell, S., & Perley, S. (2008). *Attitudes toward and use of video communications by educators in first nation schools in Atlantic Canada*. Fredericton: National Research Council. ERB-1154. NRC 50411.
- Simms, D. C., O'Donnell, S., Milliken, M., Fournier, H., & Emond, B. (2008). *Technical update report: BVCam in the Virtual Classroom*. Fredericton: National Research Council. ERB-1154. NRC 50411.
- Conference Presentations:
- Devlin, J., Simms, D., & Gibson, K. *Tele-mental health services for veterans: Building the case in Atlantic Canada*. Paper to be presented at the International Society for Traumatic Stress Studies, Montreal, PQ.
- Gibson, K., Simms, D. C., & Molyneaux, H. (October, 2009). *Clinician's attitudes towards the use of Information and Communication Technologies for mental health services in remote and rural areas*. Paper presented at the Canadian Society for Telehealth Conference, Vancouver, BC.
- Molyneaux, H., Fournier, H., & Simms, D. C. (May, 2009). *Communication technologies: perception and use of video by today's youth*. Paper presented at the Canadian Communication Association, Ottawa, ON.
- Simms, D. C., Molyneaux, H., & O'Donnell, S. (July, 2009). *Virtual reality in the treatment of post-traumatic stress disorder*. Paper presented at the Human Computer Interaction International Conference, San Diego, CA.
- Simms, D. C., O'Donnell, S., & Molyneaux, H. (May, 2009). *Perspective taking and attitude change among adolescent participants using video technologies: a case study*. Paper presented at the International Communication Association Conference, Chicago, IL.
- Simms, D. C., & Byers, E. S. (November, 2008). *Understanding, similarity and perceived similarity: the role of stereotypes in dater's perceptions of what their*

- partners want*. Poster presented at the Annual Meeting of the Society for the Scientific Study of Sexuality, San Juan, PR.
- Simms, D. C., & Byers, E. S. (October, 2008). *Interpersonal perceptions of desired frequency of sexual behaviours*. Paper presented at the Canadian Sex Research Forum Conference, Montreal, PQ.
- O'Donnell, S., Perley, S., & Simms, D. C. (June, 2008). *Challenges for video communications in rural and remote communities*. Paper presented at the International Symposium on Technology and Society – Institute of Electrical and Electronics Engineers, Fredericton, NB.
- Simms, D. C., & Byers, E. S. (May, 2007). *Sexual satisfaction of dating partners*. Poster presented at the Canadian Psychological Association Convention, Ottawa, ON.
- Simms, D. C., & Byers, E. S. (October, 2006). *Gender differences in the sexual satisfaction of dating partners*. Paper presented at Canadian Sex Research Forum Conference, Ottawa, ON.
- Simms, D. C., & Byers, E. S. (June, 2006). *Gender differences in sexual satisfaction*. Paper presented at the Emerging Issues in Psychology Conference, Fredericton, NB.
- Simms, D. C., & Pukall, C. F. (June, 2005). *Relationship satisfaction and partner solicitousness in men with chronic pelvic pain*. Poster presented at the Canadian Psychological Association Convention, Montreal, PQ.
- Simms, D. C., & Pukall, C. F. (April, 2005). *Marital and sexual satisfaction, depression, and spousal responses to pain in partners of men with chronic pelvic pain syndrome*. Paper presented at the Emerging Issues in Psychology Conference, Fredericton, NB.