

THE MEDIATING ROLE OF MOTIVATIONS FOR SEX IN THE RELATIONSHIP  
BETWEEN CHILDHOOD SEXUAL ABUSE AND SEXUAL HEALTH OUTCOMES  
AMONG HOMELESS YOUTH IN CANADA

by

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## Abstract

# The Mediating Role of Motivations for Sex in the Relationship Between Childhood Sexual Abuse and Sexual Health Outcomes Among Homeless Youth in Canada

Master of Arts, 2010

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Childhood sexual abuse (CSA), which is disproportionately common among homeless youth, is associated with adverse sexual health outcomes. However, there is a lack of data as to how CSA is related to adverse sexual health outcomes among homeless youth. The current study examined motivations for sex as mediators in the relationships between CSA and 1) sexual risk behaviours and 2) sexual functioning among homeless youth. 179 youth (ages 16-21) completed measures examining CSA, motivations for sex, and sexual health outcomes. CSA was associated with earlier age of first intercourse among females and involvement in sex trading among males. CSA was also associated with motivations to have sex for partner approval and coping. Sex for partner approval mediated the relationship between CSA and age of first intercourse among females. This study highlights the importance of targeting motivations in the reduction of adverse sexual health outcomes among homeless youth in Canada.

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## The Mediating Role of Motivations for Sex in the Relationship Between Childhood Sexual Abuse and Sexual Health Outcomes Among Homeless Youth in Canada

Compared to the general population of youth in Canada, homeless youth are at an increased risk for a host of adverse health consequences. Sexual health problems are particularly widespread among homeless youth. The Public Health Agency of Canada (PHAC) provided data on these sexual health outcomes and related sexual behaviours among homeless youth (ages 15-24) in seven urban centres across Canada. This large-scale cross-sectional study, the Enhanced Surveillance of Canadian Street Youth (E-SYS), collected data at three separate time points – 1999, 2001, and 2003 (PHAC, 2006). According to E-SYS, the overall proportion of homeless youth reporting a lifetime sexually transmitted infection (STI) ranged from 20.8%-26.6% over the three-year study period (PHAC, 2006). Lifetime prevalence of STIs was even higher in a separate sample of Montreal homeless youth (ages 13-25), in which 31.7% reported a past STI (Roy et al., 2000). These rates appear significantly higher than the STI prevalence among the general Canadian youth population (ages 15-24), which is approximately 4% (Rotermann, 2005).

Rates of specific STIs and HIV are also higher among Canadian homeless youth. In E-SYS, the prevalence of chlamydia ranged from 8.6%-11.5%, approximately ten times higher than the prevalence among youth in the general population (PHAC, 2006). Other Canadian studies of homeless youth have reported similar rates of 6.6% (Haley et al., 2002) and 8.6% (Shields et al., 2004). In E-SYS, prevalence of gonorrhoea was 20-30 times higher than rates in the general youth population, and increased significantly over the study period. Homeless youth are also at an increased risk of contracting hepatitis B and C (Beech, Myers, & Beech, 2002; Nyamathi et al., 2002; PHAC, 2006) and herpes simplex virus 2 (HSV-2), the primary cause of genital herpes

(PHAC, 2006). Studies of homeless youth in Toronto, Montreal, and Vancouver have reported high HIV prevalence among homeless youth, ranging from 1.9%-2.8% (DeMatteo et al., 1999; Marshall, Kerr, Livingstone, Montaner, & Wood, 2008; Roy et al., 2000).

Pregnancy or impregnation is also very common among homeless youth. In one Canadian study, 47.1% of the females reported at least one past pregnancy and 35.6% of the males reported having impregnated a female (Roy et al., 2000). This is markedly higher than rates from a national sample of Canadian students in grades 9 and 11, in which 3.0% of females reported lifetime pregnancy and 1.7% of males reported having impregnated a female (Boyce et al., 2006). Similarly, in a nationally representative U.S. study comparing prevalence rates of lifetime pregnancy among homeless and non-homeless female youth (ages 14-17), youth living on the streets (48.2%) and youth living in shelters (32.2%) reported significantly higher rates of lifetime pregnancy compared to non-homeless female youth (7.2%) (Greene & Ringwalt, 1998).

### **Sexual Risk Behaviours Among Homeless Youth**

Poor sexual health outcomes among homeless youth may be related to a relatively higher prevalence of sexual risk behaviours compared to the general population. In E-SYS, more than 95% had previously engaged in sexual intercourse, with 14 years as the average age of first intercourse (PHAC, 2006). Similarly, among street youth in Montreal, 99.3% were sexually active with a mean age of 13.7 for first intercourse (Roy et al., 2000). This is notably younger than the average age among the general population in Canada (16.8 years; Hansen, Mann, Wong, & McMahon, 2004) and the U.S. (17.7 years; Else-Quest, Hyde, & DeLamater, 2005).

Homeless youth are also more likely to engage in unprotected sex than youth in the general population. In a national study of Canadian youth drawn from the general population (ages 15 to 19), 43% reported being sexually active (i.e., having sex at least once) and 25% of

these youth reported not using a condom at last intercourse (Rotermann, 2008). In contrast, in a national study of Canadian homeless youth, 95% reported being sexually active. Of these youth, 41%-51% reported not using a condom with a female partner and 47%-56% reported not using a condom with a male partner at their last sexual encounter (i.e., vaginal or anal intercourse; PHAC, 2006). In a Montreal sample of homeless youth, 98.2% had ever engaged in vaginal intercourse and 31.8% had ever engaged in anal intercourse. Of these youth, 86.8% who had engaged in vaginal intercourse and 67.6% who had engaged in anal sex did not always use a condom (Roy et al., 2000). U.S. studies have generated similarly high findings, with 41.9%-45.5% of homeless youth reporting past unprotected intercourse (Bailey, Camlin, & Ennett, 1998; Halcón & Lifson, 2004).

Additionally, homeless youth report higher numbers of sexual partners than youth in the general population. In the Youth Risk Behaviour Survey (YRBS), a national U.S. study of youth in grades 9 to 12, 13.8% of the sample reported having sexual intercourse with four or more partners (Centers for Disease Control and Prevention, 2009). In contrast, Roy et al. (2000) found that 20.6% of sexually active homeless youth reported between 6-20 sexual partners in the past six months, and 7.6% reported more than 20 sexual partners. Across two years of E-SYS, male youth reported an average of 21-23 lifetime sexual partners and female youth reported an average of 17-22 lifetime sexual partners (PHAC, 2006). In addition, high proportions of youth in E-SYS engaged in sexual activity with high-risk sexual partners, including partners who had an STI, partners who were involved in sex trading and partners who were under the influence of drugs during their last sexual encounter.

Rates of “survival sex” or sex trading (i.e., exchange of sex for shelter, food, drugs, or money) have been found to be quite high among homeless youth. In E-SYS, 21.2% of homeless

youth reported lifetime involvement in sex trade (PHAC, 2006). Other Canadian and U.S. studies have reported similar or higher rates of lifetime sex trade involvement, ranging from 21.4%-46.6% (Bailey et al., 1998; Ennett, Bailey, & Federman, 1999; Greene, Ennett, & Ringwalt, 1999; Halcón & Lifson, 2004; Kral, Molnar, Booth, & Watters, 1997; Roy et al., 2000; Weber, Boivin, Blais, Haley, & Roy, 2002). These rates appear significantly higher than those reported among youth in the general population. For example, one nationally representative U.S. study of 13,294 youth reported that 3.5% of the sample had ever exchanged sex for drugs or money (Edwards, Iritani, & Hallfors, 2006).

### **Childhood Sexual Abuse and Its Relation to Sexual Health Outcomes**

Childhood sexual abuse (CSA) is a significant risk factor for both homelessness and poor sexual health among youth. In one study of homeless youth, over 60% of the sample (50% of males and 72.7% of females) reported a history of CSA (Rew, Taylor-Seehafer, & Fitzgerald, 2001). In another sample of 775 homeless youth living in large urban cities throughout the U.S., CSA was reported by 70% of females and 24% of males (Molnar, Shade, Kral, Booth, & Watters, 1998). Further, among homeless youth between the ages of 15-22, nearly half of the sample reported a history of CSA (Rew, Taylor-Seehafer, Thomas, & Yockey, 2001). These rates appear significantly higher than those reported in the general population, ranging from 5.8%-34% among females and 2%-11% among males (Walker, Carey, Mohr, Stein, & Seedat, 2004). Given that CSA has been identified as a consistent predictor of negative sexual health outcomes in a range of populations, including homeless youth (see Senn, Carey, & Venable, 2008 for a review), it is a fundamental variable to explore when examining sexual health behaviours among homeless youth.

**CSA and risky sexual behaviour.** There has been a substantial amount of research examining the association between CSA and sexual risk behaviours among adults. Results from a large Swedish sample demonstrated that, compared to non-abused participants, participants who had experienced child or adolescent sexual abuse demonstrated significantly more sexual risk behaviours, including younger age at first intercourse, younger age at diagnosis of an STI, greater frequency of unintended pregnancy, greater likelihood of participation in group sex, greater likelihood of engaging in sex trading, and increased sexual and physical assault (Steel & Herlitz, 2005). In another study of adult men and women attending an STI clinic, CSA was significantly associated with increased sexual risk behaviours including more sexual partners, unprotected sex, and sex trading (Senn, Carey, Venable, Coury-Doniger, & Urban, 2006).

Similar findings have emerged from studies examining this relationship among youth. Results from one study indicated that youth who had been sexually abused were more likely than non-abused youth to have had intercourse before the age of 14, to have had three or more sexual partners in the last three months, and to have had a past STI (Buzi et al., 2003). Further, the Youth Risk Behavior Survey, a U.S. national school-based study, found that CSA was associated with multiple sexual partners, unprotected sex, and alcohol or drug use during last sexual encounter (Howard & Wang, 2005).

Fewer studies have directly examined the association between CSA and sexual risk behaviours among homeless youth (Johnson, Rew, & Sternglanz, 2006; Rotheram-Borus, Mahler, Koopman, & Langabeer, 1996; Yates, MacKenzie, Pennbridge, & Swofford, 1991; Simons & Whitbeck, 1991; Tyler, 2009). Consistent with research on other populations, the studies that have examined this association repeatedly show that CSA is associated with a wide range of sexual risk behaviours. Rotheram-Borus and colleagues (1996) found that homeless

youth with a history of CSA were significantly more likely than non-abused homeless youth to engage in unprotected sex and to have more sexual partners. Similarly, Johnson et al. (2006) found that homeless youth who had experienced CSA engaged in more sexual risk behaviours than non-abused homeless youth. Other studies have reported that CSA is a significant predictor of later sex trading among homeless adolescents (Simons & Whitbeck, 1991; Tyler, 2009; Yates et al., 1991).

A recent review examined the published studies investigating the relationship between CSA and sexual health outcomes across a variety of youth and adult populations (Senn et al., 2008). Across studies, there was a consistent association between CSA and sexual risk behaviours – specifically, earlier age of first intercourse, higher numbers of sexual partners, and increased sex trading. These findings were demonstrated among both males and females, adults and adolescents, and in the general population as well as in vulnerable populations, including homeless youth.

**CSA and problems with sexual functioning.** In addition to the research investigating the relationship between CSA and later sexual risk behaviour, studies have also explored the association between CSA and sexual functioning. These studies, which have been primarily conducted among adult women, have consistently reported that individuals who experienced CSA demonstrate later problems with sexual functioning (Davis & Petretic-Jackson, 2000; DiLillo, 2001; Heiman & Heard-Davison, 2004; Leonard, Iverson, & Follette, 2008; Najman, Dunne, Purdie, Boyle, & Coxeter, 2005; Rumstein-McKean & Hunsley, 2001; Sarwer & Durlak, 1996; see Leonard & Follette, 2002 and Loeb, Williams, Carmona, Rivkin, & Wyatt, 2002 for reviews). Across a range of clinical, college, and community samples, these studies show that

CSA is associated with a range of sexual functioning problems, including lack of sexual desire and/or sexual arousal, fear of sexual contact, and sexual dissatisfaction.

Two studies (Feiring, Simon, & Cleland, 2009; Simon & Feiring, 2008) have reported that CSA puts youth at an increased risk for the development of sexual functioning problems, as defined by the sexual concerns (e.g., perceptions of sexual problems in relationships, sexual dissatisfaction, and unwanted sexual thoughts and feelings) and dysfunctional sexual behaviours (e.g., using sex to combat loneliness, reduce distress, or gain love or attention) subscales of the Trauma Symptom Inventory (Briere, Elliott, Harris, & Cotman, 1995). These findings suggest that the association between CSA and sexual functioning problems, which has been well-established among female adults, also exists among youth. However, the subscales used to measure sexual functioning problems in these studies very broadly assessed sexual problems, and specifically sexual problems that may arise as a result of trauma. These measures did not assess specific areas of sexual functioning such as arousal, desire, orgasm, or pain. Therefore, although these studies suggest some association between CSA and sexual functioning problems among youth, research in this area remains quite limited, with no studies examining this association among homeless youth.

**Gender differences in sexual risk behaviours and sexual functioning.** When examining sexual health outcomes among homeless youth, attention must be given to potential gender differences (Tevendale, Lightfoot, & Slocum, 2009). Although both male and female homeless youth are at considerable risk for adverse sexual health outcomes, there are gender differences in the frequency and nature of sexual risk behaviours and prevalence of STIs among homeless youth. Across studies in Canada and the U.S., female homeless youth reported higher STI prevalence rates, were less likely to use condoms consistently, were more likely to have had



a sexual partner with an STI history, and were more likely to engage in sex trading. Male homeless youth reported more frequent intercourse with regular and casual partners, more lifetime sex partners, and were more likely to have engaged in anal sex (Halcón & Lifson, 2004; MacKellar et al., 2000; PHAC, 2006; Roy et al., 2000; Solorio, Milburn, Rotheram-Borus, Higgins, & Gelberg, 2006; Tevendale, Lightfoot, & Slocum, 2009). HIV prevalence was also higher among male homeless youth compared to female homeless youth (DeMatteo et al., 1999; Roy et al., 2000).

With regard to sexual functioning, the majority of studies examining the relationship between CSA and sexual functioning have focused primarily on adult females, with limited research specifically examining sexual functioning among youth – particularly male youth. Those which have focused on males have found inconsistent associations between CSA and sexual functioning problems. For example, in a representative U.S. study of 1410 men (ages 18-59), those who had experienced CSA (defined as adult-child contact) were three times more likely to experience erectile dysfunction and approximately twice as likely to experience premature ejaculation and low sexual desire compared to men who had not experienced CSA (Laumann, Paik, & Rosen, 1999). Conversely, in a representative sample of Australian adults, CSA was not associated with symptoms of sexual dysfunction among men (Najman et al., 2005). CSA was also not associated with sexual dysfunction among heterosexual men seeking sexual dysfunction treatment (Sarwer, Crawford, & Durlak, 1997). The inconsistent findings for males, coupled with a lack of research examining sexual functioning problems among youth of either gender, suggest the need to examine whether gender differences exist in the relationship between CSA and sexual functioning among homeless youth and other youth populations.

## **Motivations for Sex as Mediators in the Relationship between CSA and Sexual Health**

### **Outcomes**

A number of theoretical models have been proposed to explain the relationship between CSA and adverse health outcomes. According to Finkelhor and Browne (1985), the sexual health consequences of CSA can be understood through a process of “traumatic sexualization,” in which children who have experienced CSA develop inappropriate and dysfunctional sexual feelings and attitudes as a result of their abuse. According to this theory, CSA disrupts normal sexual development and leads children to have skewed perceptions of sexuality. For example, sexually abused children may develop maladaptive sexual associations and, through the perpetrator’s use of rewards (e.g., affection, attention, privileges and gifts), may learn that sex is a necessary means of being or becoming valued by others. Similarly, Browning and Laumann (1997) proposed that CSA leads children to develop a culturally inappropriate model of sexuality which subsequently increases their probability of engaging in sexual risk behaviours in adolescent and adulthood. Cognitive models have also demonstrated that CSA may lead individuals to have negative sexual self-schemas (i.e., cognitive generalizations about sexual aspects of oneself), which may impact subsequent sexual behaviour and functioning (Feiring et al., 2009; Meston & Heiman, 2000; Meston, Rellini, & Heiman, 2006; Reissing, Binik, Khalife, Cohen, & Amsel, 2003).

These theories indicate that CSA influences individuals’ sexual perceptions and cognitions; however, they do not specify how CSA directly influences behaviour. From a functional analytic perspective, behaviours are best understood in terms of the functions they serve (Snyder, 1993). Therefore, in order to understand why sexually abused youth engage in sexual risk behaviours, it is crucial to explore the motivations underlying these behaviours

(Cooper, Shapiro, and Powers, 1998). Past theory and research that has shown that sexually abused children engage in increased sexual risk behaviours (e.g., Senn et al., 2008) and experience skewed perceptions of sexuality and normal sexual behaviours (e.g., Browning & Laumann, 1997; Finkelhor & Browne, 1985). Building upon this, it is expected that sexually abused individuals will experience distinct motivations for sex compared to non-abused individuals as a result of their altered sexual perceptions. These motivations for sex may then influence individuals' sexual risk behaviours and subsequent sexual functioning.

Past studies have demonstrated that motivations for sex are associated with CSA (Bornovalova, Daughters, & Lejuez, 2010) and sexual health outcomes (Cooper, Shapiro, and Powers, 1998; Gebhardt, Kuyper, & Greunsven, 2003). In a recent study of high-risk inner city drug users, CSA was associated with increased motivations to have sex to escape emotional distress and to communicate emotional distress to others (Bornovalova, Daughters, & Lejuez, 2010). As well, one study of youth with a history of CSA found that with views of sexual intimacy, a construct closely resembling sexual motivations, were associated with sexual risk behaviours and sexual problems (Simon & Feiring, 2008). Specifically, views of sex for recreation (i.e., sex for fun or physical gratification) were positively associated with number of sexual partners. Further, partner-focused views of sex (i.e., sex focused on partners needs more than personal needs) were positively associated with self-reports of sexual concerns (e.g., problems in relationships, sexual dissatisfaction, and unwanted sexual thoughts and feelings). Given that all participants in this sample had experienced CSA, this particular study does not outline the differences in sexual motivations between individuals who had and had not experienced CSA. However, taken together, these two studies suggest that motivations for sex may be influenced by CSA experiences.

Motivations for sex have also been linked with sexual risk behaviours and sexual health outcomes in normative samples (Cooper, Shapiro, and Powers, 1998; Gebhardt, Kuyper, & Greunsven, 2003). Cooper and colleagues (1998) described that sex for enhancement (i.e., having sex to enhance physical pleasure), sex for coping (i.e., having sex to avoid negative emotions), and sex for partner approval (i.e., having sex to please one's partner) predicted a distinct pattern of sexual risk behaviours in adolescent and community samples. Specifically, enhancement motivations were negatively associated with age of first intercourse and positively associated with lifetime frequency of sex, number of lifetime partners, number of unplanned pregnancies, and number of STIs. Coping motivations were associated with having multiple sexual partners, having intercourse with a stranger or prostitute, and having intercourse in exchange for money or drugs. Similarly, sex for partner approval was associated with less effective birth control use and unplanned pregnancy.

Similar findings emerged in a second study investigating the relationship between motivations for sex and sexual behaviours among adolescents (Gebhardt, Kuyper, & Greunsven, 2003). Compared to adolescents who had not engaged in casual sex, those who had engaged in casual sex were more likely to endorse sex for enhancement, sex for partner approval, and sex for coping as motivations for having sex. Further, among those who had engaged in casual sex, sex for coping and sex for partner approval were associated with increased number of casual partners. Among females, sex for enhancement and partner-approval was negatively associated with condom use.

Motivations for sex may be particularly important to explore given the extensive body of research which has demonstrated that maladaptive health behaviours are amenable to change via psychological interventions that target motivations (Miller & Rollnick, 2002). Specifically,

motivational interviewing, a treatment approach which focuses on individuals' intrinsic motivations for behavioural change, has been found to reduce a range of negative health behaviours including sexual risk behaviours (e.g., Carey et al., 1997; Carey & Lewis, 1999; Kiene & Barta, 2006). As such, identifying the specific motivations for sex that mediate the relationship between CSA and sexual health outcomes may guide future HIV prevention interventions and clinical treatments.

### **Purpose and Hypotheses**

In summary, research has demonstrated a consistent association between CSA and adverse sexual health outcomes, including sexual risk behaviours and sexual functioning problems. In addition, among youth who have experienced CSA, there appears to be a significant relationship between motivations for sex and both sexual risk behaviours and problems with sexual functioning. However, findings regarding problems with sexual functioning and findings regarding motivations for sex have yet to be extended to populations of homeless youth. The current study sought to investigate how experiences of CSA among homeless youth may be associated with individuals' motivations for sex, sexual risk behaviours, and sexual functioning.

This study examined the mediating role of motivations for sex in the relationship between CSA and 1) sexual risk behaviours and 2) problems with sexual functioning in two separate models. Motivations for sex that have been linked to adverse sexual health outcomes (i.e., sex for enhancement, sex for coping, and sex for partner approval; Cooper et al., 1998; Gebhardt et al., 2003) were included in analyses. Given that male and female homeless youth engage in different types of sexual risk behaviours (Halcón & Lifson, 2004; Roy et al., 2000), and

demonstrate differential responses to CSA in terms of sexual functioning (Najman et al., 2005), separate gender analyses were conducted.

### **Model 1: Motivations for Sex as Mediators in the Relationship between CSA and Sexual Risk Behaviours**

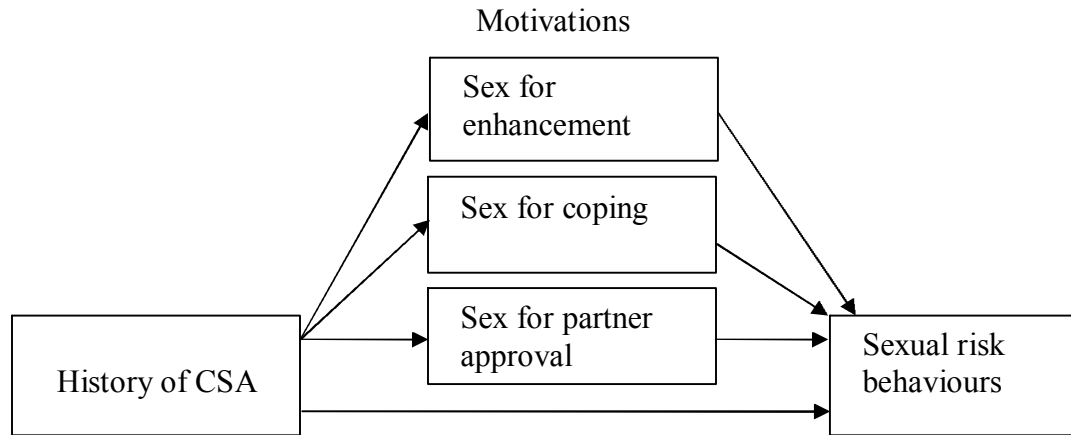
The first model proposed that motivations for sex would mediate the relationship between a history of CSA and sexual risk behaviours. Sexual risk behaviours included: age of first intercourse, number of lifetime sexual partners, and lifetime involvement in sex trading. These behaviours were selected as they have been consistently linked to CSA throughout the literature (Senn et al., 2008). In addition, exploratory analyses were conducted to determine if CSA was associated with other sexual health variables, including past STI, past pregnancy/impregnation, and sexual risk behaviours in the past six months (i.e., number of sexual partners, UVI, UAI, drug or alcohol use during last sexual encounter). Based on Baron and Kenny's (1986) mediational model, the following hypotheses were tested (see Figure 1 for model):

Hypothesis 1a): A history of CSA will be positively associated with sexual risk behaviours.

Hypothesis 1b): A history of CSA will be positively associated with the following motivations for sex: i) sex for enhancement, ii) sex for coping, and iii) sex for partner approval.

Hypothesis 1c): Controlling for a history of CSA, motivations for sex will be positively associated with sexual risk behaviours.

Hypothesis 1d): Controlling for motivations for sex, there will be a significant reduction in the relationship between CSA and sexual risk behaviours.



*Figure 1.* Model depicting the direct and indirect effects of CSA on sexual risk behaviours, with motivations for sex as mediators.

## **Model 2: Motivations for Sex as Mediators in the Relationship between CSA and Sexual Functioning Problems**

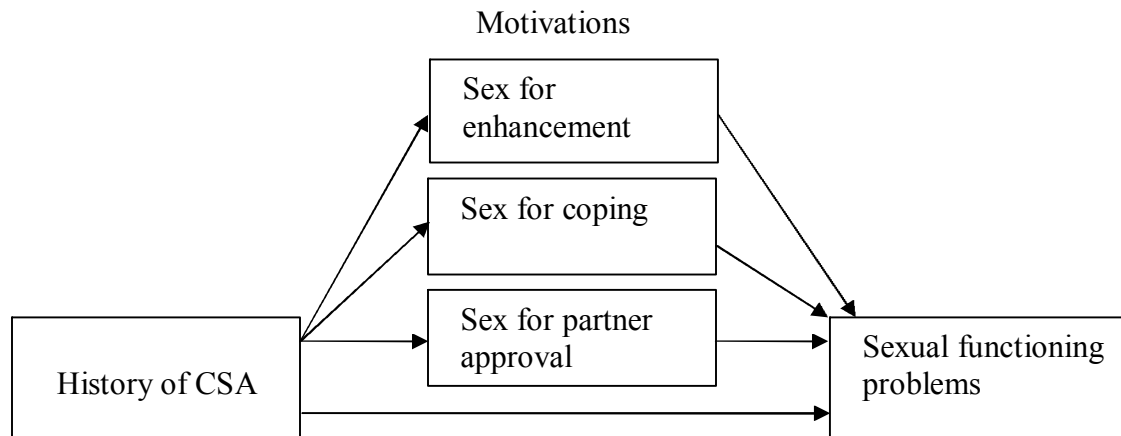
The second model proposed that motivations for sex would mediate the relationship between CSA and problems with sexual functioning. For females, sexual functioning problems were measured by six domains and a total score: desire, arousal, lubrication, orgasm, satisfaction, and pain (Rosen et al., 2000). For males, sexual functioning problems were measured by five domains and a total score: sexual drive, erections, ejaculation, problem assessment, and overall satisfaction (O’Leary et al., 1995). Based on Baron and Kenny’s (1986) mediational model, the following hypotheses were tested (see Figure 2 for model):

Hypothesis 2a): CSA will be positively associated with sexual functioning problems.

Hypothesis 2b): CSA will be positively associated with the following motivations for sex: i) sex for enhancement, ii) sex for coping, and iii) sex for partner approval.

Hypothesis 2c): Controlling for CSA, motivations for sex will be positively associated with sexual functioning problems.

Hypothesis 2d): Controlling for motivations for sex, there will be a significant reduction in the relationship between CSA and sexual functioning problems.



*Figure 2.* Model depicting the direct and indirect effects of CSA on sexual functioning problems, with motivations for sex as mediators.



## **Method**

### **Participants**

Data were collected over a 10-month period from 179 youth (58% male). Participants were recruited from five shelters that serve homeless and at-risk youth in the Greater Toronto Area. The shelters offer a range of services, including residential programs which provide beds and meals to youth, employment programs which provide job opportunities to youth, housing programs which assist youth to obtain long-term or permanent housing, and drop-in programs which offer food, shelter, clothing, and counselling referrals. To be eligible for the study, youth needed to be residents at one of the participating shelters and between the ages of 16 and 21. Although youth under the age of 18 are typically required to provide assent accompanied by parental consent, it has been argued that obtaining parental consent when conducting sexual health research with adolescents may be unnecessary and potentially harmful (Flicker & Guta, 2008). Participants in the present sample were residents at a homeless shelter and many did not have direct involvement with a parent or guardian. As well, this study involved minimal risk to participants. Accordingly, the Research Ethics Boards at York University and Ryerson University provided approval for adolescents under the age of 18 to participate in this study without parental consent. Table 1 presents a breakdown of the present study sample by shelter, as well as demographic information of study participants.

### **Procedure**

Shelter staff agreed to assist in recruitment by making announcements about the study to residents and by posting recruitment flyers and sign-up sheets in the shelters. Interested youth had the opportunity to sign up for scheduled data collection sessions at each shelter. Under the supervision of the researchers and shelter staff, large group administrations of up to 15

Table 1

*Study Participants' Demographic Information and Gender Comparisons*

Demographic Variable	Total ( <i>N</i> = 179)	Males ( <i>n</i> = 104)	Females ( <i>n</i> = 75)	Test Statistic for Gender
	<i>M (SD)/</i> % Total	<i>M (SD)/</i> % Males	<i>M (SD)/</i> % Females	
Shelter				$\chi^2(4) = 4.02$
Touchstone	39.1%	42.3%	34.7%	
Second Base	27.9%	24.0%	33.3%	
Eva's Place	15.1%	13.5%	17.3%	
Eva's Satellite	6.1%	5.8%	6.7%	
Eva's Phoenix	11.7%	14.4%	8.0%	
Age	19.39 (1.67)	19.66 (1.66)	19.00 (1.61)	$t(177) = 2.67^*$
16-17	14.5%	11.5%	18.7%	
18-19	32.9%	27.9%	40.0%	
20-21	52.6%	60.6%	41.3%	
Ethnicity				$\chi^2(6) = 7.92$
White	33.5%	33.7%	33.3%	
Black	14.5%	13.5%	16.0%	
Aboriginal	5.0%	4.8%	5.3%	
Latin American	3.9%	4.8%	2.7%	
East/Southeast Asian	2.8%	2.9%	2.7%	
Two or more ethnicities	27.9%	23.1%	34.7%	
Other	12.3%	17.3%	5.3%	
Sexual Orientation				$\chi^2(2) = 20.66^*$
Heterosexual	84.9%	95.2%	70.7%	
Gay/lesbian	4.5%	1.9%	8.0%	
Bisexual	10.7%	2.9%	21.3%	
Highest Education				$\chi^2(6) = 9.89$
Less than grade 9	8.9%	8.7%	9.3%	
Completed grade 9	10.1%	10.6%	9.3%	
Completed grade 10	23.5%	27.9%	17.3%	
Completed grade 11	26.3%	25.0%	28.0%	
Completed grade 12	21.8%	20.2%	24.0%	
Some college/ university	6.7%	3.8%	10.7%	
Completed college/ university	2.8%	3.8%	1.3%	

\*  $p < 0.01$ .

participants were held at the shelters. All researchers were fully trained on questionnaire content and administration and were able to answer any questions that arose during the sessions.

Prior to questionnaire administration, the voluntary nature, freedom to withdraw, and purpose of the study was explained to the youth. Participants were verbally informed that their names or other identifying information would in no way be connected to their questionnaire package, and that no one but the research staff would see their responses. Youth were informed that they would be compensated financially for their participation. Youth were then asked to sign an informed consent form (see Appendix A) outlining the purpose of the study, the procedures, risks, benefits, compensation, confidentiality and their right to refuse participation. Participants then had the opportunity to ask any questions of the researcher or centre staff prior to completing the questionnaire.

Participants completed the questionnaire package in approximately one hour. Participants were instructed to approach the researchers if they needed any clarification. To ensure confidentiality, participants were assigned an ID number, which was kept separate from their names. At the end of data collection, youth were given \$20 cash for their participation. All youth were provided with a debriefing form, outlining in greater detail the purpose of the study as well as a referral list of community resources, including mental health facilities, sexual health clinics, job counselling sites, and various youth shelters (see Appendix B).

The measures for this study were part of a larger questionnaire package, which focused on child abuse experiences, current mental health and sexual functioning, and health risk behaviours. Separate questionnaire packages were created for male and female participants. The packages were identical with the exception of three items: a) females were asked “Have you ever been pregnant?” and males were asked “Have you ever gotten someone pregnant?”; b) the item

asking females about using birth control was removed from the male package; and c) the wording on items asking about condom use in females was changed from “you” to “your partner”. As well, separate measures were used to assess male and female sexual functioning (see Appendix C for combined male and female measures).

## **Measures**

**Demographic variables.** Participants completed a demographics questionnaire assessing gender, age, ethnic background, sexual orientation, and education level.

**Childhood abuse.** Experiences of child abuse were assessed using the Childhood Trauma Questionnaire – Short Form (CTQ-SF, Bernstein et al., 2003). The CTQ-SF is a 28-item self-report scale based on the original 70-item CTQ (Bernstein et al., 1994). The CTQ-SF is rated on a five-point Likert-type scale (1 = *never true*; 5 = *often true*). There are five subscales in the CTQ: 1) emotional abuse, 2) physical abuse, 3) sexual abuse, 4) emotional neglect, and 5) physical neglect. Total scores on each subscale ranged from 5 to 25. For the purpose of this study, only the sexual abuse factor was examined. Examples of items from the sexual abuse subscale include, “Someone tried to touch me in a sexual way, or tried to make me touch them” and “Someone molested me.” CTQ-SF sexual abuse scores were dichotomized, with a total score of 5 equalling “no history of CSA” and a total score of 6 or higher equalling “history of CSA.” This dichotomization has been used in past research (see Baker & Maiorino, 2010 for a review) and was based on the categories provided by the CTQ-SF manual, in which a score of 5 represents no/minimal CSA and scores of 6 and higher represent mild/moderate to extreme CSA (Bernstein & Fink, 1998). In addition, this study builds upon models that examine the presence or absence of CSA (e.g., Finkelhor & Browne, 1985), as opposed to the severity of CSA.

The internal consistencies for the CTQ-SF sexual abuse factor were high in a sample of adolescent psychiatric inpatients ( $\alpha = .95$ ), adult substance abusing patients, adult substance abusers in the community, and a normative sample of adults ( $\alpha$ s = .93, .94 and .92, respectively; Bernstein et al., 2003). Further, the CTQ-SF has demonstrated high criterion validity, with the sexual abuse factor showing a correlation of  $r = .75$  with therapists' ratings of CSA history in an adolescent sample. The CTQ-SF also showed good convergent validity, with high correlations with therapist reports of client CSA, and good divergent validity, with low correlations with therapist reports of other forms of abuse history (Bernstein et al., 2003). The sexual abuse subscale of the CTQ-SF demonstrated high internal consistency in the present sample ( $\alpha = .94$ ).

**Motivations for sexual behaviours.** The Sex Motives Scale (SMS; Cooper et al., 1998) was used to measure motivations for sexual behaviour. The SMS is a 29-item self-report scale in which respondents were asked to report how often they have engaged in sex for a variety of reasons in the past 12 months. Responses are provided on a 5-point Likert-type scale, ranging from 1 (*never/almost never*) to 5 (*almost always/always*). The SMS examines six motivational categories: 1) enhancement, 2) intimacy, 3) coping, 4) self-affirmation, 5) partner approval, and 6) peer approval. For the purpose of the current study, only enhancement motivations (e.g., “How often do you have sex because it feels good?”), coping motivations (e.g., “How often do you have sex to cope with upset feelings?”), and partner approval motivations (e.g., “How often do you have sex out of fear that your partner won't love you anymore if you don't?”) were examined, as they have been consistently linked to increased sexual risk behaviours and poor sexual health outcomes (Cooper et al., 1998).

A study of college and community samples demonstrated high internal consistencies across SMS subscales, ranging from  $\alpha = .83$  to .90 for males, and from  $\alpha = .85$  to .90 for

females. Test-retest reliability was also good, with correlations ranging from  $r = .47$  to  $.67$  across subscales over a 1.5 year interval (Cooper et al., 1998). In another study of college students, internal consistency was high and ranged from  $\alpha = .83$  to  $.96$  across subscales (Schachner & Shaver, 2004). The enhancement, coping, and partner approval subscales of the SMS have also been found to predict a range of risky sexual behaviours including higher frequency of sex and more sexual partners (Cooper et al., 1998). Internal consistencies in the present sample were high, ranging from  $\alpha = .89$  to  $.94$  across the three subscales used in the present study.

**Sexual risk behaviours.** Participants were asked a series of questions pertaining to their sexual behaviours. Because sexual behaviours can be confounded with experiences of CSA experiences (see Senn et al., 2008), participants were specifically instructed not to include any abuse experiences in their responses to sexual behaviour items. Three sexual risk behaviours were examined as outcome variables in this study – age of first vaginal or anal intercourse, number of lifetime sexual partners (protected and unprotected sex), and past involvement in sex trading. These three particular items were used to measure sexual risk behaviours as they have been consistently associated with CSA in a range of populations across studies (Senn et al., 2008). Participants were also asked about other sexual health outcomes, including lifetime STIs and pregnancy/impregnation. In addition, they were asked about their sexual behaviours in the past six months, including number of sexual partners, unprotected vaginal intercourse (UVI), unprotected anal intercourse (UAI), and drug or alcohol use during their last sexual encounter.

**Female Sexual Functioning.** The Female Sexual Function Index (FSFI; Rosen et al., 2000) was used to assess female sexual functioning. The FSFI is a 19-item self-report measure which examines sexual functioning over the past four weeks. The FSFI measures six domains:

1) desire (e.g., “Over the past 4 weeks, how often did you feel sexual desire or interest?”), 2) arousal (e.g., “Over the past 4 weeks, how often did you feel sexual aroused (‘turned on’) during sexual activity or intercourse?”), 3) lubrication (“Over the past 4 weeks, how often did you become lubricated (‘wet’) during sexual activity or intercourse?”), 4) orgasm (Over the past 4 weeks, when you had sexual stimulation or intercourse, how often did you reach orgasm?”), 5) satisfaction (e.g., “Over the past 4 weeks, how satisfied were you with your ability to reach orgasm during sexual activity or intercourse?”), and 6) pain (e.g., “How often did you experience discomfort or pain during vaginal penetration?”).

The FSFI has been called the “gold standard” in the assessment of female sexual functioning (Sand, Rosen, Meston, & Brotto, 2009) and has been validated in eight separate psychometric studies (e.g., Meston, 2003; Rosen et al., 2000; Wiegel, Meston, & Rosen, 2005). For example, in a sample of 131 controls and 128 age-matched females with sexual arousal disorder, the FSFI demonstrated high internal consistency across domains, with Cronbach’s  $\alpha$ s ranging from .89 to .96. Test-retest reliability was also high after a two to four week period, with correlations ranging from .79 to .86 across the domains (Rosen et al., 2000). The FSFI has also demonstrated strong discriminant validity by reliably distinguishing between healthy controls and females with sexual arousal disorder (Rosen et al., 2000), female orgasmic disorder, and hypoactive desire disorder (Meston, 2003). To date, the FSFI has not been used to measure sexual functioning among female youth. However, given that no measures have been specifically developed to measure sexual functioning in this population, the FSFI was selected given its sound psychometric properties across adult samples. In the present sample, the internal consistency of the FSFI total scale was  $\alpha = .93$ , with subscales ranging from  $\alpha = .77$  to .93.

**Male Sexual Functioning.** To measure sexual functioning among males, the Brief Male Sexual Function Inventory (BSFI; O’Leary et al., 1995) was used. The BSFI is an 11-item self report measure which examines 3 functional domains (i.e., sexual drive, erection, and ejaculation), as well as problem assessment of these domains (i.e., perceptions of problems in each area, and overall satisfaction). Examples of items include, “During the past 30 days, on how many days have you felt sexual drive?” and “How much difficulty did you have getting an erection during the past 30 days?”

In a sample of men attending a sexual dysfunction clinic and men attending a general medical clinic, internal consistency ranged from  $\alpha = .62$  to  $.95$ . After a one-week interval, test-retest reliability ranged from  $r = .79$  -  $.90$ . Discriminant validity was found for three domains – erectile function, sexual satisfaction, and problem assessment (O’Leary et al., 1995). The BSFI has also been validated in a community sample of 2115 men (O’Leary et al., 2003), and in a normative sample of 1185 men from Norway (Mykletun, O’Leary, and Fossa, 2006). Like the FSFI, the BSFI has not been used to assess sexual functioning among male youth. However, given that no measures have been specifically developed to measure sexual functioning in this population, the BSFI was selected given its sound psychometric properties across adult samples. In the present sample, internal consistency for the overall BSFI was  $\alpha = .88$ , with subscales ranging from  $\alpha = .67$  to  $.82$ . Consistent with past studies, the ejaculation subscale demonstrated poor reliability ( $\alpha = .62$  in the O’Leary, 1995 study and  $\alpha = .67$  in the present sample), with all other subscales demonstrating good reliability. Therefore, results based on the ejaculation subscale were interpreted with caution.



## Data Analyses

Before testing the study hypotheses, descriptive statistics for each variable were examined and data was screened for outliers and non-normality. Student *t*-tests (for continuous variables) and  $\chi^2$  tests (for categorical variables) were conducted to examine gender differences in variables. Pearson correlations and one-way ANOVAs were then conducted to determine if demographic variables (age, ethnicity, sexual orientation, education) were associated with sexual risk behaviours or sexual functioning. Any demographic variables which were associated with at least one dependent variable were controlled for when testing the study hypotheses.

Hypotheses were then tested using a series of regression analyses. Linear regressions were conducted for continuous dependent variables (total number of sexual partners and age at first intercourse) and logistic regressions were conducted for dichotomous variables (whether or not an individual has ever engaged in sex trading). To test hypotheses #1a and #2a, regression analyses were conducted examining the association between history of CSA and sexual risk behaviours (Model 1) and sexual functioning problems (Model 2), controlling for demographic variables. To test hypotheses #1b and #2b, regression analyses were conducted examining the association between history of CSA and motivations for sex (Models 1 and 2), controlling for demographic variables. To test hypotheses #1c and #2c, hierarchical regression analyses were conducted, with demographic variables entered on Step 1, CSA entered on Step 2, and motivations for sex entered on Step 3, with a sexual risk behaviour (Model 1) or sexual functioning subscale (Model 2) as the dependent variable. To test hypotheses #1d and #2d, a Sobel test of mediation (Preacher & Hayes, 2004) was conducted to determine if inclusion of the mediator in the model led to a significant reduction in the relationship between the independent and dependent variables.

## Results

Using box plots, outliers were detected in three variables (age of first intercourse, number of lifetime sexual partners, and FSFI total). To reduce their influence on the analyses, any scores with  $z$  values exceeding  $|3.29|$  were replaced with the next most extreme value, until they were no longer considered outliers (Tabachnick & Fidell, 1996). Two data points were changed for the age of first intercourse variable; three data points were changed for the number of lifetime sexual partners variable; and one data point was changed for the FSFI total variable. Variable distributions were then screened for normality. Skewness and kurtosis for all variables were in the acceptable range (below  $|2|$  and  $|7|$ , respectively), indicating that variables were normally distributed (West, Finch, & Curran, 1995).

### Descriptive Statistics

**Demographic information.** Descriptive data on participants' demographic information, as well as gender comparisons, are presented in Table 1. Male participants were significantly older than female participants, with 19.39 ( $SD = 1.67$ ) years as the overall mean age of participants. A large proportion of participants identified as White (33.5%), Black (14.5%), or reported two or more ethnic groups (27.9%). Most participants identified as heterosexual, with a significantly higher proportion of females identifying as gay/lesbian or bisexual than males. In terms of education, the majority of youth had completed grades 10 or 11.

**CSA and motivations for sex.** Of the total sample, 41.9% reported a history of CSA. A significantly greater proportion of females compared to males reported a history of CSA (62.7% versus 26.9%),  $\chi^2(1) = 22.87, p < .001$ . Mean scores and gender comparisons for participants' motivations for sex are presented in Table 2. Mean scores from a community sample of sexually experienced adolescents, reported in the Cooper et al. (1998) study, are also presented in Table 2.

Table 2

*Study Participants' Motivations for Sex, Gender Comparisons, and Comparative Data from a Community Sample*

	Cooper et al. (1998) community sample ( <i>N</i> = 1,666)	Present Sample			Test Statistic for Gender
		Total ( <i>N</i> = 179)	Males ( <i>n</i> = 104)	Females ( <i>n</i> = 75)	
Motivations for sex	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	
Sex for enhancement	3.42 (1.04)	3.13 (1.08)	3.26 (1.13)	2.96 (0.99)	<i>t</i> (177) = 1.81
Sex for coping	1.57 (0.69)	2.15 (1.19)	2.32 (1.20)	1.92 (1.15)	<i>t</i> (177) = 2.23*
Sex for partner approval	1.34 (0.64)	1.91 (1.14)	1.93 (1.17)	1.89 (1.11)	<i>t</i> (177) = 0.25

\*  $p < 0.05$ .

The mean scores for the present study were within one standard deviation of the means for Cooper et al.; however, the means did appear to be slightly higher on the sex for coping and sex for partner's approval subscales. In the present study, males reported significantly higher scores on the motivations to have sex for coping subscale than females. No gender differences were found in the motivations to have sex for enhancement subscale or the motivations to have sex for partner approval subscale.

**Sexual risk behaviours.** Descriptive data on the sexual risk behaviours examined in the present study (age of first intercourse, number of lifetime sex partners, and sex trading), and other sexual risk behaviours are presented in Table 3. Comparisons between male and female participants on CSA and sexual risk behaviours are also presented in Table 3. The vast majority (95.1%) of both male and female youth in this sample were sexually active. Among sexually active youth, the average age of first intercourse was 14.11 years ( $SD = 2.93$ ), with no significant gender differences. Whereas males reported significantly more lifetime sex partners than females, females were significantly more likely to have ever engaged in sex trading or to have had a past STI. Within the past six months, youth reported a mean of approximately four sexual partners, with a large proportion of both male and female youth (63.9%) reporting UVI in the past six months. Compared to females, males were significantly more likely to report drug use during their last sexual encounter.

**Sexual functioning.** Descriptive data on the sexual functioning of male youth are presented in Table 4. Comparative data from a community Norwegian sample of men aged 20-29 (Mykletun et al., 2006) are also presented in Table 4. Although no statistical comparisons were conducted, total BSFI scores among youth in the present sample were within one standard

Table 3

*Study Participants' Sexual Risk Behaviours and Gender Comparisons*

Variable	Total ( <i>N</i> = 179)	Males ( <i>n</i> = 104)	Females ( <i>n</i> = 75)	Test Statistic for Gender
	<i>M</i> ( <i>SD</i> )/ % Total	<i>M</i> ( <i>SD</i> )/ % Males	<i>M</i> ( <i>SD</i> )/ % Females	
Sexually Active	95.1%	96.2%	94.2%	$\chi^2(1) = 0.54$
Sexual risk behaviours (study):				
Age at first intercourse	14.11 (2.93)	13.93 (3.02)	14.36 (2.81)	$t(177) = -0.96$
Lifetime sexual partners	13.77 (13.55)	16.09 (14.83)	10.56 (10.84)	$t(177) = 2.88^{**}$
Ever traded sex	12.3%	5.8%	21.3%	$\chi^2(1) = 9.79^{**}$
Sexual health outcomes:				
Past STI	19.4%	12.5%	28.0%	$\chi^2(1) = 6.56^*$
Past pregnancy/ impregnation	54.9%	51.7%	58.9%	$\chi^2(1) = 0.84$
Sexual risk behaviours in the past 6 months:				
Number of sexual partners	3.89 (4.16)	4.36 (4.73)	3.30 (3.26)	$t(160.5) = 1.71$
Any UVI	63.9%	61.5%	67.2%	$\chi^2(1) = 0.52$
Any UAI	14.0%	16.3%	11.0%	$\chi^2(1) = 1.00$
Drug use during last sex	42.3%	52.6%	28.8%	$\chi^2(1) = 9.63^{**}$
Alcohol use during last sex	41.7%	43.2%	39.7%	$\chi^2(1) = 0.20$

\*  $p < 0.05$ . \*\*  $p < 0.01$ .

Table 4

*Male Study Participants' Sexual Functioning and Comparative Data from a Community Sample*

	Mykletun et al. (2005) community sample ( <i>N</i> = 86)	Present Sample ( <i>n</i> = 101)
BSFI Subscale	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Sexual drive	2.79 (0.81)	2.89 (0.95)
Erections	3.63 (0.60)	3.00 (1.01)
Ejaculation	3.85 (0.37)	3.23 (1.06)
Problem assessment	3.79 (0.53)	3.24 (1.00)
Satisfaction	2.79 (1.12)	3.00 (1.14)
Total	3.55 (0.42)	3.13 (0.78)

deviation of the mean total BSFI scores among men in the normative sample. This suggests that the male homeless youth in this study demonstrated normal levels of sexual functioning.

Descriptive data on the sexual functioning of female youth are presented in Table 5. Comparative data from a cross-validation study of adult women with and without sexual dysfunction (Wiegel et al., 2005) are also presented in Table 5. Across all subscales, mean sexual functioning scores in the present sample fell below scores of adult women without sexual dysfunction (indicating poorer sexual functioning than adult women without sexual dysfunction), but above scores of adult women with a diagnosis of female sexual arousal disorder and pain disorder (indicating better sexual functioning than adult women with sexual dysfunction). Based on a clinical cutoff of 26.55 for FSFI total score (Wiegel et al., 2005), half the sample (50.7%) self-reported sexual dysfunction. This suggests that these youth should be considered for further assessment (Wiegel et al., 2005).

### **Model 1: Motivations for Sex as Mediators in the Relationship between CSA and Sexual Risk Behaviours**

Before the study hypotheses were tested, the associations between demographic variables (shelter, age, ethnicity, sexual orientation, and education) and sexual risk behaviours (age of first intercourse, number of lifetime sexual partners, and sex trading) were explored. Among females, sexual orientation was associated with age of first intercourse,  $F(2, 72) = 6.12, p = .001$ , and number of lifetime sexual partners,  $F(2, 72) = 3.94, p = .02$ . LSD post hoc tests revealed that bisexual youth reported a significantly earlier age of first intercourse ( $M = 12.44, SD = 3.69$ ) than heterosexual youth ( $M = 15.02, SD = 2.20$ ), mean difference = 2.58,  $SE = 0.75, p = .001$ , 95% CI = [1.08, 4.08]. Further, lesbian youth reported significantly higher numbers of lifetime sex partners ( $M = 19.33, SD = 18.26$ ) than heterosexual youth ( $M = 8.55, SD = 8.46$ ), mean

Table 5

*Female Study Participants' Sexual Functioning and Comparative Data from Non-Clinical and Clinical Samples*

FSFI Subscale	Wiegel, Meston, & Rosen (2005)			Present Sample
	Control ( <i>n</i> = 244)	FSAD <sup>a</sup> ( <i>n</i> = 152)	Pain disorder ( <i>n</i> = 31)	Females ( <i>n</i> = 69)
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Desire	4.28 (1.12)	2.99 (1.33)	3.09 (1.23)	4.01 (1.32)
Arousal	5.08 (1.11)	3.09 (1.46)	3.30 (1.91)	4.20 (1.48)
Lubrication	5.45 (1.14)	3.31 (1.60)	3.67 (2.07)	4.54 (1.46)
Orgasm	5.05 (1.30)	3.05 (1.66)	3.04 (2.11)	3.80 (1.72)
Satisfaction	5.04 (1.19)	3.38 (1.45)	3.81 (1.26)	4.41 (1.41)
Pain	5.51 (1.29)	4.21 (1.80)	2.02 (1.89)	4.29 (1.63)
Total	30.75 (4.80)	20.05 (6.74)	19.73 (8.73)	25.21 (7.04)

<sup>a</sup> FSAD = female sexual arousal disorder.



difference = 10.79,  $SE = 4.50$ ,  $p = .02$ , 95% CI = [1.82, 19.75]. Among males, sexual orientation was associated with sex trading,  $F(2, 101) = 6.55$ ,  $p = .002$ . LSD post hoc tests revealed that gay male youth ( $M = 0.50$ ,  $SD = 0.71$ ) were significantly more likely than heterosexual youth ( $M = 0.04$ ,  $SD = 0.20$ ) to report lifetime involvement in sex trading, mean difference = 0.46,  $SE = 0.16$ ,  $p = .005$ , 95% CI = [0.14, 0.77]. No other demographic variables were significantly associated with any of the sexual risk behaviours among female or male participants. Therefore, only sexual orientation was included as a covariate in subsequent analyses.<sup>1</sup>

**Hypothesis #1a: A history of CSA will be associated with sexual risk behaviours.**

Among females, CSA was associated with earlier age of first intercourse,  $B = -1.72$ ,  $SE = 0.60$ ,  $p = .005$ , Adjusted  $R^2 = .13$ , 95% CI = [-2.93, 0.52]. CSA was not associated with number of lifetime sex partners, sex trading, or other sexual risk behaviours. Therefore, only age of first intercourse was examined as a dependent variable in subsequent mediation analyses for females. Among males, the odds of engaging in sex trading were approximately 15 times higher among males who had experienced CSA compared to males who had not experienced CSA,  $B = 2.70$ ,  $SE = 1.19$ , Wald  $\chi^2 = 5.19$ ,  $p = .02$ ,  $OR = 14.90$ , 95% CI = [1.46, 152.40]. CSA was not associated with age of first intercourse, number of lifetime sex partners, or other sexual risk behaviours. Therefore, only sex trading was examined as a dependent variable in subsequent mediation analyses for males. Results from the exploratory analyses indicated that CSA was not

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<sup>1</sup> The moderating effect of sexual orientation was examined in the relationship between CSA and sexual risk behaviours (age of first intercourse, lifetime sexual partners, and sex trading). Among females, no interactions were found between CSA and sexual orientation in predicting any sexual risk behaviours. Among males, a significant interaction was found between CSA and sexual orientation in predicting sex trading,  $F(2, 98) = 5.67$ ,  $p = .005$ . However, only one gay male and one bisexual male (both with a history of CSA) reported past involvement in sex trading. Therefore, although statistically significant, these results may not be clinically significant.

associated with any of the additional sexual health variables (past STI, pregnancy/impregnation, and sexual risk behaviours in the past six months) among male or female homeless youth.

**Hypothesis #1b: A history of CSA will be associated with motivations for sex.**

Among females, individuals with a history of CSA reported higher scores on the sex for coping subscale ( $M = 2.13$ ,  $SD = 1.20$ ) than individuals without a history of CSA ( $M = 1.57$ ,  $SD = 0.97$ ),  $t(73) = -2.08$ ,  $p = .04$ , 95% CI = [-1.09, -0.02]. As well, females with a history of CSA reported higher scores on the sex for partner approval subscale ( $M = 2.15$ ,  $SD = 1.23$ ) compared to females without a history of CSA ( $M = 1.45$ ,  $SD = 0.69$ ),  $t(72.75) = -3.17$ ,  $p = .002$ , 95% CI = [-1.14, -0.26]. CSA was not associated with sex for enhancement. Therefore, sex for coping and sex for partner approval were included as mediators in subsequent mediation analyses for females.

Similarly, among males, individuals with a history of CSA reported higher scores on the sex for coping subscale ( $M = 2.85$ ,  $SD = 1.35$ ) than individuals without a history of CSA ( $M = 2.13$ ,  $SD = 2.13$ ),  $t(102) = -2.81$ ,  $p = .006$ , 95% CI = [-1.24, -0.21]. As well, males with a history of CSA reported higher scores on the sex for partner approval subscale ( $M = 2.56$ ,  $SD = 1.47$ ) compared to males without a history of CSA ( $M = 1.70$ ,  $SD = 0.94$ ),  $t(35.41) = -2.90$ ,  $p = .006$ , 95% CI = [-1.47, -0.26]. CSA was not associated with sex for enhancement. Therefore, sex for coping and sex for partner approval were included as mediators in subsequent mediation analyses for males.

**Hypothesis #1c: Controlling for a history of CSA, motivations for sex will be significantly associated with sexual risk behaviours.** For females, controlling for a history of CSA, sex for partner approval was associated with earlier age of first intercourse (see Table 6), but sex for coping was not (see Table 7). Therefore, only sex for partner approval was examined

Table 6

*Sex for Partner Approval as a Mediator in the Relationship between CSA and Age of First Intercourse among Female Study Participants*

Predictor	<i>B</i>	<i>SE</i>	95% CI	Adjusted <i>R</i> <sup>2</sup>
Step 1				.13*
Sexual orientation	-1.29*	0.37	[-2.03, -0.56]	
Step 2				.21*
Sexual orientation	-1.19*	0.35	[-1.89, -0.48]	
CSA	-1.72*	0.60	[-2.91, -0.52]	
Step 3				.28*
Sexual orientation	-1.28*	0.34	[-1.95, -0.60]	
CSA	-1.18	0.60	[-2.38, 0.03]	
Sex for partner approval	-0.75*	0.26	[-1.28, -0.23]	

*Note.* *B* = unstandardized regression coefficient; *SE* = standard error; CI = confidence interval.

\* *p* < .01.

Table 7

*Sex for Coping as a Mediator in the Relationship between CSA and Age of First Intercourse among Female Study Participants*

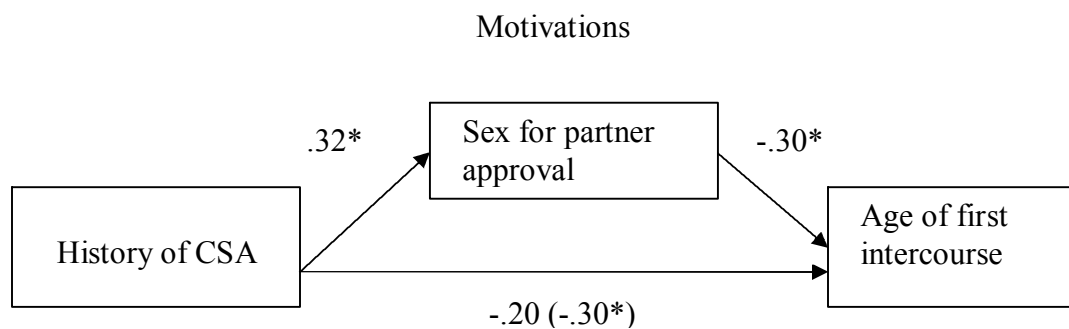
Predictor	<i>B</i>	<i>SE</i>	95% CI	Adjusted $R^2$
Step 1				.13*
Sexual orientation	-1.29*	0.37	[-2.03, -0.56]	
Step 2				.21*
Sexual orientation	-1.19*	0.35	[-1.89, -0.48]	
CSA	-1.72*	0.60	[-2.91, -0.52]	
Step 3				.21
Sexual orientation	-1.21*	0.35	[-1.97, -0.50]	
CSA	-1.58*	0.62	[-2.82, -0.35]	
Sex for coping	-0.23	0.26	[-0.75, 0.29]	

*Note.* *B* = unstandardized regression coefficient; *SE* = standard error; CI = confidence interval.

\*  $p < .01$ .

in subsequent analyses. For males, controlling for a history of CSA, neither sex for partner approval (see Table 8) nor sex for coping (see Table 9) were associated with sex trading. Therefore, no further mediation analyses were conducted among males.

**Hypothesis #1d: Controlling for motivations for sex, there will be a significant reduction in the relationship between CSA and sexual risk behaviours.** Among females, the Sobel test of mediation indicated that sex for partner approval mediated the relationship between history of CSA and earlier age of sexual intercourse (test statistic = -1.95,  $p = .05$ ). The relationship between CSA and age of first sexual intercourse was no longer significant when controlling for sex for partner approval (see Figure 3), suggesting full mediation.



*Figure 3.* Model depicting the direct and indirect effects of CSA on age of first intercourse, with sex for partner approval as a mediator. Standardized regression coefficients are presented. The effect of CSA on age of first intercourse when the mediator is not included in the model is shown in parentheses. \* $p < .01$ .

Table 8

*Sex for Partner Approval as a Mediator in the Relationship between CSA and Sex Trading among Male Study Participants*

Predictor	<i>B</i>	<i>SE</i>	Wald $\chi^2$	OR	95% CI
Step 1					
Sexual orientation <sup>a</sup>			7.01*		
Gay	3.17	1.50	4.44*	23.75	[1.25, 452.32]
Bisexual	2.47	1.33	3.48	11.88	[0.88, 159.97]
Step 2					
Sexual orientation <sup>a</sup>			4.21		
Gay	3.25	1.86	3.05	25.72	[0.67, 986.96]
Bisexual	1.78	1.45	1.51	5.95	[0.35, 102.51]
History of CSA <sup>b</sup>	2.70	1.19	5.19*	14.90	[1.46, 152.40]
Step 3					
Sexual orientation <sup>a</sup>			5.57		
Gay	4.05	1.92	4.48*	57.45	[0.49, 239.03]
Bisexual	2.38	1.58	2.26	10.76	[0.49, 239.03]
History of CSA <sup>b</sup>	2.16	1.27	2.88	8.67	[0.72, 105.06]
Sex for partner approval	0.55	0.39	1.95	1.73	[0.80, 3.75]

*Note.* *B* = unstandardized regression coefficient; *SE* = standard error; OR = odds ratio; CI = confidence interval.

<sup>a</sup>Heterosexual orientation = reference group. <sup>b</sup>No history of CSA = reference group.

\**p* < .05.

Table 9

*Sex for Coping as a Mediator in the Relationship between CSA and Sex Trading among Male Study Participants*

Predictor	<i>B</i>	<i>SE</i>	Wald $\chi^2$	OR	95% CI
Step 1					
Sexual orientation <sup>a</sup>			7.01*		
Gay	3.17	1.50	4.44*	23.75	[1.25, 452.32]
Bisexual	2.47	1.33	3.48	11.88	[0.88, 159.97]
Step 2					
Sexual orientation <sup>a</sup>			4.21		
Gay	3.25	1.86	3.05	25.72	[0.67, 986.96]
Bisexual	1.78	1.45	1.51	5.95	[0.35, 102.51]
CSA <sup>b</sup>					
History of CSA	2.70	1.19	5.19*	14.90	[1.46, 152.40]
Step 3					
Sexual orientation <sup>a</sup>			5.07		
Gay	3.80	2.35	2.62	44.89	[0.45, 4495.40]
Bisexual	3.60	1.91	3.55	36.51	[0.86, 1543.35]
History of CSA <sup>b</sup>	1.96	1.24	2.51	7.11	[0.63, 80.36]
Sex for coping	0.86	0.49	3.05	2.36	[0.90, 6.17]

*Note.* *B* = unstandardized regression coefficient; *SE* = standard error; OR = odds ratio; CI = confidence interval.

<sup>a</sup>Heterosexual orientation = reference group. <sup>b</sup>No history of CSA = reference group.

\*  $p < .05$ .

## **Model 2: Motivations for Sex as Mediators in the Relationship between CSA and Sexual Functioning Problems**

As a result of missing data in the sexual functioning measures (six FSFI total scores and three BSFI total scores), the total sample size for Model 2 decreased from 179 participants to 170 participants (69 females and 101 males). Before the study hypotheses were examined, the association between demographic variables and sexual functioning subscales was explored. Among females, age was negatively associated with desire ( $r = -0.25, p < .05$ ), arousal ( $r = -0.29, p < .05$ ), and satisfaction ( $r = -0.25, p < .05$ ). Sexual orientation was associated with desire,  $F(2, 66) = 4.11, p = .02$ , with lesbian youth ( $M = 4.90, SD = 0.70$ ) reporting higher scores on the desire subscale than heterosexual youth ( $M = 3.77, SD = 1.33$ ), mean difference = 1.13,  $SE = 0.55, p = .04$ , 95% CI = [0.04, 2.22]. Bisexual youth ( $M = 4.66, SD = 1.18$ ) also reported higher scores on the desire subscale than heterosexual youth, mean difference = 0.89,  $SE = 0.39, p = .03$ , 95% CI = [0.11, 1.68]. Therefore, age and sexual orientation were included as covariates in subsequent mediation analyses for females.

Among males, ethnic background was associated with problem assessment (i.e., overall perception of sexual functioning),  $F(6, 94) = 2.28, p = .04$ . East/Southeast Asian youth ( $M = 2.11, SD = 0.55$ ) reported worse problem assessment than White youth ( $M = 3.48, SD = 0.17$ ; mean difference = 1.36,  $SE = 0.57, p = .02$ , 95% CI = [0.23, 2.50], Aboriginal youth ( $M = 3.73, SD = 0.42$ ), mean difference = 1.62,  $SE = 0.69, p = .02$ , 95% CI = [0.25, 3.00], and youth with two or more ethnic backgrounds ( $M = 3.52, SE = 0.20$ ), mean difference = 1.41,  $SE = 0.58, p = .02$ , 95% CI = [0.26, 2.56]. In addition, youth identifying as “other” ( $M = 2.84, SD = 0.22$ ) reported worse problem assessment than White youth (mean difference = 0.63,  $SE = 0.28, p = .03$ , 95% CI = [0.08, 1.18]) and youth with two or more ethnic backgrounds, mean difference =



0.68,  $SE = 0.30$ ,  $p = .03$ , 95% CI = [0.09, 1.27]. No other demographic variables were associated with BSFI subscales. Therefore, only ethnic background was included as a covariate in subsequent mediation analyses for males.

**Hypothesis #1a: A history of CSA will be associated with sexual functioning problems.** Among females, controlling for age and sexual orientation, CSA was not associated with any FSFI subscales or the total score. Among males, controlling for ethnic background, CSA was not associated with any BSFI subscales or the total score. Given that the initial hypotheses were not supported, no further mediation analyses were conducted.

### **Discussion**

To date, this is the first study to examine motivations for sex as mediators in the relationships between CSA and sexual risk behaviours, and CSA and sexual functioning problems. In a sample of 179 homeless youth living in a large Canadian city, CSA was associated with motivations for sex and sexual risk behaviours. Motivations to have sex for partner approval mediated the relationship between CSA history and earlier age of first intercourse among female youth. Sex for coping was associated with CSA among male and female youth. Sex for enhancement was not associated with CSA. When controlling for a history of CSA, neither sex for coping nor sex for enhancement were associated with sexual risk behaviours among male or female youth. No associations were found between CSA and sexual functioning problems in either males or female youth.

### **Comparisons between the Present Sample of Homeless Youth and Other Samples in the Study's Dependent Variables**

**Sexual risk behaviours and sexual health outcomes.** Consistent with past research on homeless youth, youth in the present sample exhibited a range of sexual risk behaviours and

adverse sexual health outcomes. Regarding sexual risk behaviours, 95% reported past intercourse, which is equal to the estimate among homeless youth in E-SYS (PHAC, 2006). The prevalence of sexual activity among homeless youth appears to be significantly higher than the prevalence among youth in the general Canadian population, in which 43% of youth aged 15 to 19 reported having sexual intercourse at least once (Rotermann, 2008). The mean age of first intercourse in this study was 14 years, which is equal to estimates reported in other Canadian studies of homeless youth (PHAC, 2006; Roy et al., 2000), but younger than the mean age of first intercourse reported in the general youth population (16.8 years; Hansen et al., 2004). Many youth reported engaging in HIV-related sexual risk behaviours in the past six months, including UVI (63.9%) and UAI (14%). Although both male and female youth reported high numbers of lifetime sexual partners, males reported more lifetime sexual partners, consistent with past studies (e.g., MacKellar et al., 2000; PHAC, 2006).

The overall lifetime prevalence of sex trading in this study (12.3%) was lower than lifetime rates in other Canadian and U.S. studies of homeless youth, which range from 21.2%-46.6% (Ennett, Bailey et al., 1999; Greene et al., 1999; Halcón & Lifson, 2004; Kral et al., 1997; PHAC, 2006; Roy et al., 2000; Weber et al., 2002). One possible explanation for this discrepancy is that participants in the present study were recruited exclusively from residential programs at homeless youth shelters, whereas other studies included homeless youth living on the streets and in shelters. Past research has demonstrated that youth living in shelters report significantly lower rates of sex trading than youth living on the streets (10% versus 28%, respectively; Greene et al., 1999). Compared to youth in shelters, youth living on the streets may have less access to subsistence resources, such as food and shelter, and may therefore be more likely to engage in sex trading to gain access to these resources (Tyler & Johnson, 2006).

Accordingly, it is possible that this study underestimates the true prevalence of sex trading among homeless youth.

Regarding sexual health outcomes, consistent with the previous literature (e.g., PHAC, 2006), a large proportion of homeless youth, particularly females, reported past STIs. Moreover, in the present sample, the majority of males (51.7%) and females (58.9%) reported past pregnancy or impregnation. Prevalence of pregnancy/impregnation in this study was even higher than other studies of homeless youth (e.g., 32.2%, Greene & Ringwalt, 1998; 47.1% of females and 35.6% of males, Roy et al., 2000) and drastically higher than reported rates among youth in the general population (e.g., 3.0% of females and 1.7% of males, Boyce et al., 2006).

**Sexual functioning.** With regards to sexual functioning, male youth scored within the normal range relative to adult men in the general population. Conversely, half of the female youth in this sample were below the FSFI diagnostic cut-off score, indicating a high risk for clinically significant sexual dysfunction. These apparent gender differences are consistent with past research examining the prevalence of sexual dysfunction in the general adult population. Specifically, in a nationally representative U.S. sample, sexual problems were more prevalent among females compared to males, and most common among young women and older men (Laumann et al., 1999). Laumann et al. (1999) posited that young women, who are more likely to be single than older women, may experience instability in their sexual lives, including higher partner turnover rates and periodic episodes of sexual inactivity. This lack of stability, along with less sexual experience, provides the basis for sexual pain and anxiety. Further, they noted that, among males, sexual dysfunction increases with age as a result of physiological changes associated with aging, which may lead to low sexual desire and erection problems. Although these explanations offer some clarification for the differential prevalence rates of sexual

dysfunction among adult males and females throughout the lifetime, they have not been examined empirically, particularly among youth. Further, Laumann et al. did not specifically address why females experience higher prevalence rates of sexual dysfunction overall.

The proportion of female homeless youth in this sample who were at high risk for sexual dysfunction is higher than the proportion reported in a community sample of sexually active adult women aged 30-79 (38.4%; Lutfey, Link, Rosen, Wiegel, & McKinlay, 2009), but lower than the proportion reported in a sample of female medical students (63%; mean age = 24, *SD* = 2; Shindel, Ferguson, Nelson, & Brandes, 2008). Comparisons between homeless youth and youth in the general population cannot be drawn given that no research has examined the prevalence of sexual dysfunction in any youth populations. Thus, more research is needed to determine prevalence rates, predictors, and possible gender differences of sexual functioning among homeless youth, as well as among youth in the general population.

### **CSA and Sexual Health Outcomes**

Prevalence of CSA was high in this sample. Consistent with past studies, a greater proportion of females (62.7%) compared to males (26.9%) reported a history of CSA. Overall rates of CSA (41.9%) in this study were comparable to those reported in past studies of homeless youth (e.g., 40%; Molnar et al., 1998) and significantly higher than estimates in the general population (5.8%-34% among females; 2%-11% among males; Walker et al., 2004).

**CSA and sexual risk behaviours.** As hypothesized, a history of CSA was associated with sexual risk behaviours, including earlier age of first intercourse among females and increased involvement in sex trading among males. However, these results only partially support the hypothesis that CSA would be associated with sexual risk behaviours (earlier age of first intercourse, higher number of lifetime sexual partners, and increased sex trading) among male

and female homeless youth. Nevertheless, findings are consistent with other studies of high-risk youth which have found that CSA is associated with some, but not all, sexual risk behaviours. For example, among incarcerated youth, a history of CSA was associated with earlier age of first intercourse among females and a decreased likelihood of using contraception among both males and females. However, no differences were found between youth with and without a history of CSA on pregnancy/parenthood or number of sexual partners (Mason, Zimmerman, & Evans, 1998).

In addition, although CSA has been found to strongly predict sexual risk behaviours among homeless youth, there may be other important factors to consider when examining sexual health outcomes in this population. For example, past research has shown that contextual factors related to homelessness (duration of homelessness, stability and quality of housing, access to financial resources, and utilization of social services; e.g., Ennett, Federman, Bailey, Ringwalt, & Hubbard, 1999) and other psychological factors (e.g., social support, emotional difficulties, and substance use) may also account for the sexual risk behaviours practised by homeless youth (e.g., Ennett, Bailey et al., 1999). These factors, which may impact all homeless youth regardless of CSA history, might help to explain why CSA history was not an independent predictor of all sexual health outcomes.

**CSA and sexual functioning problems.** The finding that CSA was not associated with sexual functioning problems in this sample is consistent with selected studies of adult males, which reported that CSA does not influence sexual functioning (e.g., Najman et al., 2005; Sarwer et al., 1997). However, it does not support the literature indicating that CSA leads to sexual functioning problems among adult males (Laumann et al., 1999) and females (e.g., DiLillo, 2001; Leonard & Follette, 2002; Loeb et al., 2002). To date, the research examining the

association between CSA and sexual functioning among adolescents has been very limited. The scant literature that has explored this association has focused primarily on the impact of CSA on sexual risk behaviours (e.g., Loeb et al., 2002), without exploring sexual functioning per se. Further, the few studies that have focused more specifically on sexual functioning problems among youth (e.g., sexual dissatisfaction, unwanted sexual thoughts and feelings) only included individuals with a history of CSA, with no comparison group (Feiring et al., 2009; Simon & Feiring, 2008). Therefore, it is difficult to assess whether the association between CSA and sexual functioning, which has been well-established among female adults, is present among adolescents.

When examining the association between CSA and sexual functioning problems specifically among males, there are a number of important issues to consider. First, past research has demonstrated that other childhood abuse variables (e.g., emotional and physical abuse and neglect, disruptive family environment) may be even more important than CSA in predicting sexual functioning problems (Colman & Widom, 2004; Kinzl, Mangweth, Traweger, & Biebl, 1996; Meston, Heiman, & Trapnell, 1999). For example, in one study of 1,032 undergraduate students, childhood emotional abuse was associated with sexual functioning problems among males, whereas CSA was not (Meston et al., 1999). In addition, a number of researchers have suggested that gender differences in the impact of CSA on sexual functioning may be a result of differential reactions to CSA experiences. Specifically, compared to females, males have reported more positive reactions to CSA (Dhaliwal, Gauzas, Antonowicz, & Ross, 1996; Rind, Tromovitch, & Bauserman, 1998) and have been less likely to regard themselves as victims of CSA, particularly if the perpetrator was female (Stander, Olson, & Merrill, 2002). Nevertheless, the nature of CSA is critical to consider, as intra-familial abuse experiences have been found to

negatively impact sexual functioning among males, in spite of initial positive reactions (Kelly, Wood, Gonzalez, MacDonald, & Waterman, 2002). Taken together, the research suggests that a more comprehensive exploration of childhood abuse experiences, family environment, and perceptions of abuse may be necessary to consider when examining the association between CSA and male sexual functioning.

### **CSA and Motivations for Sex**

In their theoretical model explaining the pathways from CSA to adverse sexual health outcomes, Finkelhor and Browne (1985) suggested that CSA may disrupt normal sexual development and lead children to develop skewed sexual perceptions of sexuality, sexual norms, and sexual behaviour. This study supports the traumatic sexualization model by highlighting differences between youth who had and had not experienced CSA in their motivations to engage in sex.

Both males and females with a history of CSA reported stronger motivations to engage in sex to gain their partners' approval than did males and females without a history of CSA. As suggested by past research (Finkelhor & Browne, 1985), it is possible that children, through their relationships with abusers, may learn to associate sex with love and affection, and may come to believe that sex is a necessary act in order to obtain a partner's approval. This was demonstrated in one study of adult women with a history of CSA, in which 86% endorsed the statement, "No man could care for me without a sexual relationship" (Jehu, Glazen, & Klassen, 1985). Further, it has been suggested that individuals with a history of CSA may perceive their roles in sexual relationships as submissive, in which their goal is to please their partner regardless of their personal desire (Maltz & Holman, 1987).

Sex to cope with negative mood was also associated with CSA in this study. This finding supports the work by Briere (1996), who suggested that individuals who have experienced CSA may engage in sexual behaviours as a tension-reduction strategy. He posited that, in the short-term, sexual contact may serve to alleviate emotional distress by soothing painful feelings, providing a temporary distraction, eliciting positive responses from others, and restoring a sense of control. Polusny and Follette (1995) proposed a similar model which states that individuals with a history of CSA may attempt to avoid the emotions and memories associated with the abuse by engaging in coping behaviours (e.g., sexual behaviour). Overall, although these theories lack extensive empirical support, they help to clarify why youth who have experienced CSA may be more motivated toward sexual behaviour in order to please their partners and cope with negative mood.

### **Motivations for Sex as Mediators in the Relationship between CSA and Sexual Health Outcomes**

The hypothesis that motivations for sex would mediate the relationship between CSA and sexual risk behaviours was partially supported. Motivations to have sex for partner approval completely mediated the relationship between CSA and earlier age of first intercourse among females; however motivations for sex did not mediate the relationship between CSA and sex trading among males. This discrepancy may be attributable to the different sexual risk behaviours with which CSA was associated across genders. Specifically, among female youth in this sample, CSA was associated with earlier age of first intercourse – a sexual behaviour that has been directly linked to sexual motivations in past literature (Cooper et al., 1998). In contrast, among male youth in this sample, CSA was associated with sex trading – a sexual behaviour which is strongly linked to the context of street life (Greene et al., 1999) and has not been



directly linked to sexual motivations in past literature. Therefore, it is possible that the relationship between CSA and sex trading may be more related to contextual factors, rather than internal motivations. For example, homeless youth with a history of CSA are more likely to leave home at a younger age (Tyler, Hoyt, Whitbeck, & Cauce, 2001), and a longer duration of homelessness increases the likelihood of engaging in a range of sexual risk behaviours (Rew, Grady, Whittaker, & Bowman, 2008). Thus, future studies examining the pathways from CSA to sex trading may benefit from exploring more contextual factors, including contextually-based motivations for sex (e.g., sex to gain food or shelter, sex as a means of survival, etc.), which may more directly impact involvement in this high-risk sexual behaviour.

Results from the present study indicate that female youth with a history of CSA engage in sexual intercourse at younger ages than non-abused youth due to an increased concern about pleasing their partners. This finding provides further evidence to support past theory and research on the interpersonal effects of CSA (e.g., Finkelhor & Browne, 1985; see Davis & Petretic-Jackson, 2000 for a review). In line with the theory of traumatic sexualization, researchers have suggested that CSA may lead to an “oversexualization” of relationships, in which individuals regard non-sexual relationships as sexual and believe that sex is necessary in order to achieve intimacy and affection within relationships (Davis & Petretic-Jackson, 2000). Therefore, it is possible that youth who have experienced CSA may be more likely than their peers to regard friendships or relationships, which would otherwise be viewed as non-sexual or platonic, as inappropriately sexual. Further, once in a sexual situation, an excessive concern to please one’s partner may result in decreased assertiveness and increased potential for engaging in sexual intercourse.

### **Other Possible Mediators in the Relationship Between CSA and Sexual Health Outcomes**

Motivations for sex to please one's partner mediated the relationship between CSA and earlier age of first intercourse; however, none of the other proposed motivations appeared to mediate the relationship between CSA and sexual risk behaviours. This suggests that there are other pathways, aside from motivations for sex, which may lead individuals with a history of CSA to experience adverse sexual health outcomes.

One study examined the role of disinhibition in the relationship between CSA and HIV-related risk behaviours (unprotected sex and substance use) among U.S. inner-city Black youth (Bornovalova, Gwadz, Kahler, Aklin, & Lejuez, 2008). Findings demonstrated that two aspects of disinhibition (sensation seeking and risk-taking propensity) mediated the relationship between CSA and risk behaviours. The authors offered a neuropsychological explanation for these findings and suggested that traumatic childhood experiences such as CSA may lead to neurochemical dysregulation, which may, in turn, impact behavioural inhibition and regulation.

The role of cognition may also be an important mediator in the relationship between CSA and sexual health outcomes. Past studies have demonstrated that CSA may disrupt individuals' cognitions about sexuality and sexual self schemas, which may subsequently affect their sexual behaviour and functioning (Meston & Heiman, 2000; Meston et al., 2006; Reissing et al., 2003). A recent six-year longitudinal study reported that, among youth with a history of CSA, self-stigmatization (i.e., abuse-specific shame and self-blame) predicted subsequent sexual difficulties (Feiring et al., 2009). The authors suggested that shame and self-blame that arises from CSA experiences may disrupt the development of positive sexual self-schemas, thus impacting sexual behaviours, functioning, and relationships.

Experiential avoidance has also been proposed as an outcome of CSA, and another possible mediator between CSA and negative sexual health outcomes. Experiential avoidance refers to an unwillingness to experience painful internal events and results in a range of behaviours (e.g., dissociation, substance use, self-harm, and sexual behaviours) aimed at avoiding adverse thoughts, emotions, and memories that are linked to a trauma (Briere, 1996; Leonard et al., 2008; Polusny & Follette, 1995). In one study of adult females with a history of CSA, experiential avoidance was associated with sexual dissatisfaction when controlling for relationship satisfaction. Although this study did not examine the mediating role of experiential avoidance, the results suggested that it may be an important variable to explore in future research (Leonard et al., 2008).

### **Limitations and Future Directions**

There are a number of limitations to the present study. First, participants were recruited exclusively from residential programs at homeless youth shelters in Toronto and may not be representative of all homeless youth. Nevertheless, in E-SYS, the highest proportion of homeless youth spent the night in a shelter compared to other sites (e.g., streets, parks, relatives', or partners' places of residence; PHAC, 2006). This suggests that the present sample likely represented a large proportion of homeless youth in Canada. However, future studies would benefit from recruiting homeless youth from additional sites, including streets, parks, and other organizations servicing homeless youth, in order to increase generalizability of findings.

Another limitation was the use of retrospective self-report measures. A history of CSA was determined based on CTQ-SF scores and was not substantiated. As well, many of the sexual behaviour questions focused on past experiences. This introduces the possibility of recall bias given that participants may have inaccurately recalled past events. Self-report measures of

motivations for sex may also raise concerns, given that it may be difficult for youth to accurately comment on the reasons for why they engage in intercourse. For example, some youth may be engaging in sex for reasons that they are not aware of or that are not being assessed in the current study (e.g., sex to gain food, money, or shelter). Future research examining collateral evidence of youths' motivations for sex is warranted to demonstrate the validity of these self-report measures. Response bias may have also threatened the validity of the results. Given the personal nature of study measures, which were completed in a group setting, it is possible that participants responded to questions in a socially desirable rather than accurate manner. In order to maximize honest self-disclosure, future studies may wish to administer questionnaires in confidential one-on-one settings. As well, inclusion of qualitative interviews may provide more comprehensive accounts of individuals' experiences and perceptions.

The cross-sectional nature of this study further limits the interpretation of findings. Although this study presents correlations between variables at a single time point, it does not provide information about the predictive or causal nature of variables. For example, when interpreting the finding that sex for partner approval motivations mediates the relationship between CSA and age of first intercourse among females, it is important to note that many of the youth had their first sexual experiences years before participation in this study. Specifically, the mean age of first sexual intercourse was 14.11 ( $SD = 2.93$ ) and the mean age of participants was 19.39 ( $SD = 1.67$ ). Therefore, we are unable to determine whether individuals' motivations to have sex preceded their first sexual experience. Cooper et al. (1998) indicated that there may be a bi-directional relationship between motivations and behaviour. Thus, although motivations to have sex to please one's partner may have influenced individuals to engage in sexual intercourse

at a younger age, it is also possible that engaging in sexual intercourse at a younger age may have influenced individuals' sexual motivations.

Future studies should examine these associations using a longitudinal design in order to demonstrate the temporal effects of CSA on motivations for sex and sexual behaviours and functioning. The design of these studies would differ depending on the population of interest (i.e., homeless youth versus youth in the general population). Ideally, participants would be recruited for baseline assessment directly following substantiated CSA experiences, and would be followed up at various intervals (e.g., one year and six years post-abuse; Feiring et al., 2009). The study would also include age-matched controls, consisting of individuals without a history of CSA, in order to assess the direct impact of CSA on motivations for sex and sexual health outcomes. This type of study design could be feasible among youth in the general population, and would provide a great deal of insight into the mechanisms underlying the relationship between CSA and sexual health outcomes. However, given that CSA is likely to precede homelessness (PHAC, 2006; Rew et al., 2001), this type of study design would be difficult to implement in a sample of homeless youth. Among homeless youth, longitudinal studies might involve tracking the motivations and sexual behaviours of individuals at various time points (e.g., baseline, one year, and three year follow-up), in order to investigate how factors related to homelessness (e.g., time on the streets, living conditions, social support) interact with CSA experiences to predict motivations for sex and subsequent sexual risk behaviours and sexual functioning. It is important to note, however, that longitudinal research among homeless youth may be quite challenging given the transient nature of this population.

Although there was a large effect size for the relationship between CSA and sex trading among male youth in this sample (Chinn, 2000), there may be some concern regarding the

reliability of this finding. Of the 104 males, only six (5.8%) reported past involvement in sex trading, of whom five (83.3%) reported a history of CSA. As a result of the small sample size, the confidence interval for the odds ratio for this relationship was very large, which raises concern regarding the reliability of the effect size. Nevertheless, this finding may have important clinical implications as it suggests that CSA is a powerful predictor of sex trading among a small proportion of male homeless youth. Future studies should include a larger sample size in order to replicate this finding and to further explore which youth may be particularly at risk for sex trading and other poor sexual health outcomes.

Risk of Type-I error is also a concern in the present study given the large number of variables that were examined (one independent variable, three mediators, up to six dependent variables, and up to two covariates). This risk could have been reduced by setting a more conservative  $p$  value (e.g.,  $\alpha = .01$ ). Although this was not initially conceived, the major study findings (see Table 6) remained statistically significant at  $\alpha < .01$ . Thus, it is unlikely that these findings were due to Type-I error.

Finally, this study did not examine a range of developmental, individual, and contextual variables that may impact the sexual health of homeless youth. For example, information regarding the specific characteristics of CSA (e.g., severity of abuse, age of abuse, relationship to perpetrator) and the presence of childhood emotional and physical abuse, which have been identified as important correlates of sexual health outcomes (e.g., Arata, 2000; Cinq-Mars, Wright, McDuff, 2004; Finkelhor & Browne, 1986; Greene et al., 1999), was not included. In addition, this study did not examine factors such as early family environment, social support networks, and past and current mental health status, which may play an important role in the motivations and behaviours of homeless youth. Inclusion of these variables was beyond the

scope of the present study; however, they may be important to consider when conducting larger-scale studies in this area.

## **Implications**

Despite limitations, the present study has a number of strengths. Data were collected at five homeless youth shelters throughout the Greater Toronto Area, including the downtown area and surrounding suburbs. Therefore, this study provides information about the sexual health of homeless youth living in a range of areas within a major Canadian urban centre. Further, this study contributes to the literature in a number of ways. Although the association between CSA and sexual risk behaviours among homeless youth has been examined in a number of studies, this was the first study to date to explore the relationship between CSA and sexual functioning in homeless youth. Further, there is a dearth of literature examining the mechanisms underlying the relationship between CSA and negative sexual health outcomes, particularly among homeless youth. This study built upon past literature by providing insight into the impact of CSA on motivations, and the mechanisms by which CSA leads to negative sexual health outcomes in this vulnerable population.

This study may have important clinical implications in improving the health and quality of life among homeless youth in Canada. Results from this study suggest that targeting motivations to have sex for partner approval may be of potential value in HIV prevention and intervention strategies that aim to reduce negative sexual health outcomes in this vulnerable population. For example, when working with youth who have experienced CSA, psycho-education regarding what constitutes healthy and fulfilling sexual behaviours and relationships may help to correct individuals' maladaptive or skewed perceptions of sexuality and sexual behaviours. Sexual assertiveness and communication skills training may also benefit homeless

youth by providing them with effective communication and safe-sex negotiation skills within the context of sexual relationships (DiClemente & Wingood, 1995). These techniques may enhance pre-existing motivation-based HIV risk reduction programs (e.g., Carey & Lewis, 1999) in order to further improve sexual health outcomes among high-risk populations.

## **Summary**

The present study suggests that homeless youth in Canada experience a range of adverse sexual health outcomes related to their increased engagement in sexual risk behaviours. A history of CSA, which was very common within this sample, was associated with motivations for sex and sexual risk behaviours. Further, motivations to have sex for partner approval mediated the relationship between CSA and earlier age of first intercourse among females. CSA was not associated with sexual functioning problems among male or female homeless youth in this sample. This study may guide future prevention and intervention strategies by highlighting the importance of targeting motivations for sex in the reduction of adverse sexual health outcomes among homeless youth in Canada.



## Appendix A

### Informed Consent Form

#### **Consent to be a Research Participant**

**Study Name:** Childhood Experiences and Youth Health Outcomes

You are being asked to participate in a research study. Before you agree to get involved, please read this page. Ask as many questions as you would like so you know exactly what you have to do.

**Researchers:** Carolyn James, M.A., Graduate Student, Department of Psychology, York University

Trevor Hart, Ph.D., Assistant Professor, Department of Psychology, Ryerson University

Jennifer Mills, Ph.D., Assistant Professor, Department of Psychology, York University

**Purpose of the Research:** This is a study that looks at childhood experiences and health outcomes. We are asking you to participate because you are between the ages of 16 and 21. We will be recruiting about 300 participants who have been homeless or street-involved. We hope that this study will help us learn more about the health of young adults. Our goal is to help develop better services for youth.

**What You Will Be Asked to Do:** If you agree to participate, we will ask you to answer questions about yourself. Some questions are about events from your childhood. Others are about your experiences as a young adult. You will also be asked about your feelings. Your questionnaire package will not include your name or any other identifying information. **Do not worry** about being judged based on your answers. To make sure your answers are kept private, we will give you a number instead of your name. Your name will be put on a separate list. This list will show that you have participated in the study and have been paid. It will not be linked to the questionnaires.

You will be asked to fill out the questionnaires by hand at Touchstone Youth Centre. A study researcher or Touchstone staff member will show you how to fill out the questionnaire and can answer any questions. The questionnaires take about 1 hour to complete. Your participation in this study will end when you have finished answering the questions. No one will ever contact you about the study again.

**Risks and Discomforts:** We do not think there are any physical risks involved in participating in this study. It is possible that some of the questions might make you feel uncomfortable. If you are uncomfortable with a question, please leave it blank and move to the next one.

**Benefits of the Research and Benefits to You:** While there are no direct benefits to you for being in the study, your answers will help us understand the health of young people.

**Participation:** Your participation in the study is completely voluntary. You may choose to end it at any time. Your decision not to participate will not influence your relationship with Touchstone

Youth Services, the researchers involved in the study, York University, or Ryerson University, now or in the future.

**Withdrawal from the Study:** You can stop participating in the study at any time. If you don't finish the questionnaire, you will still get paid \$20. However, if you leave the study, we won't be able to use your answers. Your questionnaire package will be destroyed right away.

**Confidentiality:** All information you provide during the research will be kept private. Your name will not appear in any report or publication of the research. The questionnaires will be kept in a locked filing cabinet in a locked office. We will keep this consent form and the participation list separate from the questionnaires. All questionnaires will be destroyed 10 years after the study is over. We will keep your records as private as the law allows.

**Questions about the Research?** If you have questions about the research in general or about your role in the study, contact Carolyn James (phone 416-979-5000 ext. 2180; email [cjames2@yorku.ca](mailto:cjames2@yorku.ca)) or Dr. Trevor Hart (phone 416-979-5000 ext. 6192; email [trevor.hart@psych.ryerson.ca](mailto:trevor.hart@psych.ryerson.ca)). This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethics Review Board and the Research Ethics Board and Ryerson University. It also conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process or about your rights as a participant in the study, please contact York University or Ryerson University for information, at the numbers below:

Ms. Alison Collins-Mrakas  
Manager, Research Ethics,  
and Innovation  
309 York Lanes, York University  
4700 Keele Street  
Toronto, ON, M3J 1P3  
Tel: 416-736-5914  
[acollins@yorku.ca](mailto:acollins@yorku.ca)

Research Ethics Board  
c/o Office of the Vice President, Research  
  
Ryerson University  
350 Victoria Street  
Toronto, ON, M5B 2K3  
Tel: 416-979-5042

### **Agreement:**

Your signature below means that you have read the information in this agreement and have had a chance to ask any questions you have about the study. Your signature also means that you agree to participate in the study and have been told that you can change your mind at any time. You have been given a copy of this agreement.

You have been told that by signing this consent agreement you are not giving up any of your legal rights.

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Name of Participant (please print)

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date

## Appendix B

### Debriefing and Referral Form

#### **Debriefing Form**

Thank you for participating in our Childhood Experiences and Youth Health Outcomes study. We are interested in finding out how some of your childhood and adolescent experiences are related to how you are doing today as a young adult. We hope that the information we get from this study will help us to better know how to assist young people today. All your answers will be kept strictly anonymous and confidential.

We would also like to take this opportunity to inform you of various resources in the Greater Toronto Area (GTA) that are available to assist young people:

#### **Central Toronto**

##### **The House**

36B Prince Arthur Ave, Main Floor (Avenue Rd & Bloor St W)

(416) 927-7171

Sexual health centre for youth 13 to 25; no Ontario health insurance required.

##### **Centre for Addictions and Mental Health (CAMH)**

250 College St (Spadina & College)

(416) 535-8501 ext. 6878

[www.camh.net](http://www.camh.net)

Services include assessment, interventions, inpatient/outpatient programs, continuing care, family support

##### **Hassle Free Clinic**

66 Gerrard St E, 2<sup>nd</sup> floor (Church St & Gerrard)

416-922-0566 (Women's Clinic); 416-922-0603 (Men's clinic)

[www.hasslefreeclinic.org](http://www.hasslefreeclinic.org)

Clinic providing free medical and counseling services in many areas of sexual health; free and anonymous HIV testing

##### **Evergreen Health Centre**

381 Yonge St (Yonge & Gerrard)

(416) 977-7259 ext 238

Clinic for street youth 24 years and under. No Ontario health insurance required

##### **Street Outreach Services**

622 Yonge St, 2nd Floor (Yonge & Wellesley)

(416) 926-0744

Clinic for bisexual, gay, heterosexual, lesbian and trans youth under 25 involved in prostitution.

**Justice for Children and Youth**

415 Yonge St, Suite 1203 (Yonge & Gerrard)

416-920-1633; Toll free: 1-866-999-5329; Accepts collect calls

<http://www.jfcy.org/>

Street Youth Legal Services for young adults 18-24 years

**Yonge Street Mission**

Evergreen Centre for Street Youth

381 Yonge St (Yonge & Gerrard)

416-977-7259

<http://www.ysm.on.ca/>

Services provided for Street Youth 16-24 years: Drop-in centre, hot meals, counseling, shower and laundry facilities, access to emergency clothing, referrals and advocacy, legal advice;

Multiple languages spoken

**Youthlink**

Youth Skills Zone

7 Vanauley St (Spadina & Queen St W)

416-595-9902

<http://www.youthskillszone.org/>

Services for street-involved youth 16-24 years who engage in panhandling, drug dealing or sex trade.

**East Toronto****416 Community Support for Women**

416 Dundas St E, Toronto (Parliament St & Dundas St E)

416-928-3334

<http://www.416dropincentre.com/>

Services for women 16 years and over who are transient, homeless, socially isolated or single mothers; drop-in crisis centre, laundry and shower facilities, mental health and crisis intervention, recreation activities, meals, medical clinic, outreach services including drug prevention.

**North West Scarborough Youth Centre**

3850 Finch Ave E, Unit 410, Scarborough (Kennedy Rd & Finch Ave E)

416-502-9293

<http://www.nwsyc.com/>

Services provided for youth and young adults 15-29 years who are out of school.

Employment resources and sexual health clinic: birth control, condoms, emergency contraception, sexually transmitted disease testing and treatment, pregnancy testing, HIV testing, sexuality/relationship counseling

## **North Toronto**

### **Griffin Centre, Y-CONNECT**

10 San Romanoway, Unit 12 (Jane St & Finch Ave W)

416-661-8119

<http://www.griffin-centre.org/>

For youth 15-24 years and their families: mental health and substance use supports, assistance in accessing community services such as legal support, housing, employment; meetings with youth and their families in the home or other community setting; school-based counseling and consultation.

## **West Toronto**

### **All-A-Board Youth Ventures**

39 Lisgar St (Dovercourt Rd & Queen St W)

416-595-9939

<http://www.allaboard.ca/>

Services provided for at-risk and street-involved youth interested in working full time. Previous work experience not required.

### **Christie Ossington Neighbourhood Centre**

854 Bloor St W (Ossington Ave & Bloor St W)

416-534-8941

[conc@conc.ca](mailto:conc@conc.ca)

Community capacity building, youth employment, resume and job search support, youth drop-in, homeless initiatives, street outreach, food access initiatives, evening gym programs

### **CAMH (Queen St Location)**

1001 Queen Street West (Ossington & Queen St W)

(416) 535-8501 (ext. 6616 for Addiction Assessment)

[www.camh.net](http://www.camh.net)

Services include assessment, interventions, inpatient/outpatient programs, continuing care, family support

Appendix C

Study Measures

Participation I.D.: \_\_\_\_\_

## **Childhood Experiences and Youth Health Outcomes Study**

This packet contains various questions on your childhood experiences, attitudes and outlooks on some personal issues, and overall functioning as a young adult. You are NOT REQUIRED to include any identifying information. Please answer each question honestly, and to the best of your ability.

Directions will be provided to you for each questionnaire in this package. If you have any questions on how to fill out the package, please let the researcher or Touchstone staff member know.

Thank you for your participation in this study. We hope that the information you provide will help us better understand how to assist young people today. We are extremely grateful for your time, patience, and effort.

## **PLEASE TURN OVER AND BEGIN.**

**Here are some basic questions about YOU. Please do not attach your name to this or any other sheet. Remember, all of your answers are confidential and you cannot be identified by any information you provide in this package.**

1. How old are you? \_\_\_\_\_
2. Are you:    ☐ Male?            ☐ Female?    ☐ Other (please specify) \_\_\_\_\_
3. Were you born in Canada?  
      ☐ Yes                ☐ No: Please tell us what country you were born in \_\_\_\_\_
4. How long have you been living in Canada?  
      ☐ I have lived here all of my life  
      ☐ I have been living in Canada for 10 years or more  
      ☐ I have been living in Canada for less than 10 years
5. Where were your parents born?  
      Mother:        ☐ Canada                      ☐ Elsewhere (please specify) \_\_\_\_\_  
                      ☐ Don't know  
  
      Father:        ☐ Canada                      ☐ Elsewhere (please specify) \_\_\_\_\_  
                      ☐ Don't know
6. What is the highest level of education your parents/caregivers completed?  
  
      My mother has completed:  
          ☐ Less than high school                      ☐ College or university  
          ☐ High school                                      ☐ Graduate school  
          ☐ Some college or university                      ☐ I don't know  
  
      My father has completed:  
          ☐ Less than high school                      ☐ College or university  
          ☐ High school                                      ☐ Graduate school  
          ☐ Some college or university                      ☐ I don't know



7. What is your ethnic background? (**please check all that apply**)

- ☐ Aboriginal/First Nations
  - ☐ Asian – Chinese
  - ☐ Asian – East (e.g., Japan, Korea)
  - ☐ Asian – South (e.g., India, Sri Lanka)
  - ☐ Asian – South East (e.g., Vietnam)
  - ☐ Black – Africa (e.g., Ghana, Kenya)
  - ☐ Black – Canadian
  - ☐ Black – Caribbean (e.g., Jamaica)
  - ☐ Latin American (e.g., Argentina)
  - ☐ Indian-Caribbean (e.g., Guyanese with origins in India)
  - ☐ Middle Eastern (e.g., Egypt, Iran, Israel)
  - ☐ White – Great Britain and/or Irish
  - ☐ White – Eastern European (e.g., Russia)
  - ☐ White - Italian
  - ☐ White – Other European (e.g., Germany, France)
  - ☐ White – Other
  - ☐ Other(s)
- Please specify:
- 

8. What is your religion?

- ☐ Catholic
- ☐ Protestant (e.g., Anglican, Presbyterian, United Church)
- ☐ Eastern Orthodox
- ☐ Other Christian
- ☐ Jewish
- ☐ Muslim
- ☐ Hindu
- ☐ Sikh
- ☐ Buddhist
- ☐ Agnostic
- ☐ None
- ☐ Other (please specify) \_\_\_\_\_.

9. What is your sexual orientation? (Please check all that apply)

- ☐ Straight or heterosexual
- ☐ Gay/lesbian
- ☐ Bisexual
- ☐ Not sure or questioning
- ☐ Other (please specify) \_\_\_\_\_

10. What is your highest level of education?

- ☐ Less than grade 9
- ☐ Completed grade 9
- ☐ Completed grade 10
- ☐ Completed grade 11
- ☐ Completed grade 12
- ☐ Some college or university
- ☐ Completed college or university
- ☐ Some graduate school
- ☐ Completed graduate school

FOR MALES ONLY:

13. Have you ever gotten someone pregnant?

- ☐ Yes
- ☐ No
- ☐ Not sure

14. If you answered "yes" in question 13, how many times have you gotten someone pregnant?

- \_\_\_\_\_
- ☐ Not sure

FOR FEMALES ONLY:

13a. Have you ever been pregnant?

- ☐ Yes
- ☐ No
- ☐ Not sure

14a. If you answered "yes" in question 13, how many times have you been pregnant?

- \_\_\_\_\_
- ☐ Not sure

15. If you answered "yes" in question 13 (for males) or 13a (for females), are you currently a parent?

- ☐ Yes
- ☐ No

16. If you answered "yes" in question 15, how many children do you have? \_\_\_\_\_

17. Are you currently in a romantic relationship?

- ☐ Yes
- ☐ No (If "No", skip to question # 21)

18. For how long have you been in this relationship?

- ☐ Less than 1 month
- ☐ 1-6 months
- ☐ 7 months – 1 year
- ☐ More than 1 year

19. Since you have been in this relationship, are you only having sex with this partner?

- ☐ Yes
- ☐ No
- ☐ I am not currently having sex in this relationship

20. Since you have been in this relationship, is your partner only having sex with you?

- ☐ Yes
- ☐ No
- ☐ I'm not sure
- ☐ We are not currently having sex in this relationship

21. Have you ever been arrested?

- ☐ Yes
- ☐ No

22. If you answered "Yes", how many times have you been arrested?

I have been arrested \_\_\_\_\_ times.

23. Have you been **convicted** for any of the following offenses? (Please check all that apply)

- ☐ Driving related (e.g., dangerous driving, impaired driving)
- ☐ Theft/Robbery
- ☐ Breaking and entering
- ☐ Weapon related (e.g., carrying or using a dangerous weapon)
- ☐ Threatening to cause death or harm
- ☐ Assault with a weapon
- ☐ Sexual assault
- ☐ Drug related (e.g., possession, trafficking, production)
- ☐ Public mischief
- ☐ Failure to comply with court orders
- ☐ Sex related (e.g., indecent act, sexual services from a person under 18)
- ☐ Attempted murder
- ☐ Homicide
- ☐ Other (please specify): \_\_\_\_\_

## CTQ-SF

**These questions ask about some of your experiences growing up as a child. Although these questions are very personal, please try to answer as honestly as you can. For each question, circle the number that best describes how you feel.**

**1 = Never True**  
**2 = Rarely True**  
**3 = Sometimes True**  
**4 = Often True**  
**5 = Very Often True**

1. I didn't have enough to eat.	1	2	3	4	5
2. I knew that there was someone to take care of me and protect me.	1	2	3	4	5
3. People in my family called me things like "stupid," "lazy," or "ugly."	1	2	3	4	5
4. My parents were too drunk or high to take care of the family.	1	2	3	4	5
5. There was someone in my family who helped me feel that I was important or special.	1	2	3	4	5
6. I had to wear dirty clothes.	1	2	3	4	5
7. I felt loved.	1	2	3	4	5
8. I thought that my parents wished I had never been born.	1	2	3	4	5
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	1	2	3	4	5
10. There was nothing I wanted to change about my family.	1	2	3	4	5
11. People in my family hit me so hard that it left me with bruises or marks.	1	2	3	4	5
12. I was punished with a belt, a board, a cord, or some other hard object.	1	2	3	4	5
13. People in my family looked out for each other.	1	2	3	4	5
14. People in my family said hurtful or insulting things to me.	1	2	3	4	5
15. I believe that I was physically abused.	1	2	3	4	5
16. I had the perfect childhood.	1	2	3	4	5

**1 = Never True**  
**2 = Rarely True**  
**3 = Sometimes True**  
**4 = Often True**  
**5 = Very Often True**

17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	1	2	3	4	5
18. I felt that someone in my family hated me.	1	2	3	4	5
19. People in my family felt close to each other.	1	2	3	4	5
20. Someone tried to touch me in a sexual way, or tried to make me touch them.	1	2	3	4	5
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22. I had the best family in the world.	1	2	3	4	5
23. Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24. Someone molested me.	1	2	3	4	5
25. I believe that I was emotionally abused.	1	2	3	4	5
26. There was someone to take me to the doctor if I needed it.	1	2	3	4	5
27. I believe that I was sexually abused.	1	2	3	4	5
28. My family was a source of strength and support.	1	2	3	4	5

## SBQ

1. How old were you when you had sexual intercourse (vaginal or anal sex) for the first time? \_\_\_\_\_ years old

(If you have never had sexual intercourse, please check here ☐ and go to page

20)

2. Please describe this first experience:

- |  |   |
|--|---|
| <input type="checkbox"/> I wanted it to happen       | <input type="checkbox"/> I was unsure about it    |
| <input type="checkbox"/> I did not want it to happen | <input type="checkbox"/> I was forced to have sex |

3. If your first sexual experience was forced or unwanted, how old were you when you had sexual intercourse you willingly took part in (vaginal or anal sex) for the first time?

\_\_\_\_\_ years old

4. How many sexual partners (i.e., people you have had vaginal or anal intercourse with) have you had in your **lifetime**? (Please do not count partners who sexually abused or sexually assaulted you).

I have had \_\_\_\_\_ sexual partners

The **last time** you had sex that you **willingly took part in**:

5. Did you use a condom?

- |   |                             |
|---|-----------------------------|
| <input type="checkbox"/> Yes              | <input type="checkbox"/> No |
| <input type="checkbox"/> I don't remember |                             |

6. Had you been drinking alcohol?

- |                              |                             |   |
|------------------------------|-----------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> I don't remember |
|------------------------------|-----------------------------|---|

7. Were you high on drugs?

- |                              |                             |   |
|------------------------------|-----------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> I don't remember |
|------------------------------|-----------------------------|---|

8. Have you ever been tested for HIV?

- |                              |                             |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|------------------------------|-----------------------------|

9. If yes, approximately when was your most recent HIV test? ☐ Less than 6 months ago

☐ 6 months to 1 year ago

☐ 1-3 years ago

☐ Over 3 years ago

10. What do you think your HIV status is?

☐ HIV positive

☐ HIV negative

☐ I am unsure of my HIV status

11. Have you ever been tested for a sexually transmitted infection (STI), (for example gonorrhea, Chlamydia, genital herpes)?

☐ Yes

☐ No

12. If yes, approximately when was your most recent STI test? ☐ Less than 6 months ago

☐ 6 months to 1 year ago

☐ 1-3 years ago

☐ Over 3 years ago

13. Have you ever had an STI?

☐ Yes

☐ No

☐ I am unsure

FOR FEMALES ONLY:

13a. Are you currently using birth control (e.g., birth control pill)?

☐ Yes

☐ No

**The next group of questions is about sexual activities you willingly took part in during the past 6 MONTHS.**

**Please write the exact number for each question. If you are unsure of the number of times or number of partners, please put down your best estimate. If you have not engaged in the specified activity within the last 6 months, please put a “0” in the box.**

**Please do not include partners who sexually abused or assaulted you.**

14. In the past 6 months, how many **times** did you have vaginal intercourse?  
\_\_\_\_\_

15. Of these times, how often did you use a condom?

☐ All of the time    ☐ Most of the time    ☐ Some of the time    ☐ Never

16. In the past 6 months, how many **times** did you have anal intercourse? \_\_\_\_\_

17. Of these times, how often did you use a condom?

☐ All of the time    ☐ Most of the time    ☐ Some of the time    ☐ Never

18. In the past 6 months, with how many **partners** did you have vaginal intercourse? \_\_\_\_\_

19. In the past 6 months, with how many **partners** did you have anal intercourse?  
\_\_\_\_\_

20. Have you **ever** traded sex for money or gifts (including food, shelter, clothes, and drugs)?

☐ Yes    ☐ No (If “No”, skip to next page)

21. How many times in the past 6 months did you engage in sex trade or prostitution? \_\_\_\_\_

22. When engaging in sex trade or prostitution, how often do you use a condom?

☐ All of the time    ☐ Most of the time    ☐ Some of the time    ☐ Never



## SMS

**For each statement, please circle the number which best describes how often in the past 12 months you personally had sex for each of the following reasons. We just want to know what you think.**

**If you have not had sex in the past 12 months, please check here ☐ and go to the next questionnaire.**

**1 = Almost Never / Never**  
**2 = Some of the Time**  
**3 = About Half of the Time**  
**4 = Most of the Time**  
**5 = Almost Always / Always**

1. How often do you have sex to become more intimate with your partner?	1	2	3	4	5
2. How often do you have sex to express love for your partner?	1	2	3	4	5
3. How often do you have sex to make an emotional connection with your partner?	1	2	3	4	5
4. How often do you have sex to become closer with your partner?	1	2	3	4	5
5. How often do you have sex to feel emotionally close to your partner?	1	2	3	4	5
6. How often do you have sex because you feel "horny?"	1	2	3	4	5
7. How often do you have sex because it feels good?	1	2	3	4	5
8. How often do you have sex just for the excitement of it?	1	2	3	4	5
9. How often do you have sex just for the thrill of it?	1	2	3	4	5
10. How often do you have sex to satisfy your sexual needs?	1	2	3	4	5
11. How often do you have sex to prove to yourself that your partner thinks you're attractive?	1	2	3	4	5
12. How often do you have sex to help you feel better about yourself?	1	2	3	4	5
13. How often do you have sex because it makes you feel like you're a more interesting person?	1	2	3	4	5
14. How often do you have sex to reassure yourself that you are sexually desirable?	1	2	3	4	5
15. How often do you have sex to cope with upset feelings?	1	2	3	4	5
16. How often do you have sex to help you deal with	1	2	3	4	5

disappointment in your life?					
17. How often do you have sex because it helps you feel better when you're lonely?	1	2	3	4	5
18. How often do you have sex because it helps you feel better when you're feeling low?	1	2	3	4	5
19. How often do you have sex to cheer yourself up?	1	2	3	4	5
20. How often do you have sex because you worry that people will talk about you if you don't have sex?	1	2	3	4	5
21. How often do you have sex because people will think less of you if you don't?	1	2	3	4	5
22. How often do you have sex because others will kid you if you don't?	1	2	3	4	5
23. How often do you have sex just because all your friends are having sex?	1	2	3	4	5
24. How often do you have sex so that others won't put you down about not having sex?	1	2	3	4	5
25. How often do you have sex out of fear that your partner won't love or like you anymore if you don't?	1	2	3	4	5
26. How often do you have sex because you don't want your partner to be angry with you?	1	2	3	4	5
27. How often do you have sex because you worry that your partner won't want to be with you if you don't?	1	2	3	4	5
28. How often do you have sex because you're afraid that your partner will leave you if you don't?	1	2	3	4	5
29. How often do you have sex because of curiosity?	1	2	3	4	5

## BSFI (FOR MALES ONLY)

Please circle the most appropriate number based on the past 30 days.

### 1. On how many days have you felt sexual drive?

None	Only a few	Some	Most	Almost every day
0	1	2	3	4

### 2. How would you rate your level of sexual drive?

None at all	Low	Medium	Medium-high	High
0	1	2	3	4

### 3. How often have you had partial or full sexual erections when you were sexually stimulated in any way?

Not at all	A few times	Fairly often	Usually	Always
0	1	2	3	4

### 4. When you had erections, how often were they firm enough to have sexual intercourse?

Not at all	A few times	Fairly often	Usually	Always
0	1	2	3	4

### 5. How much difficulty did you have getting an erection in the past 30 days?

No Erection	A lot of difficulty	Some difficulty	Little difficulty	No difficulty
0	1	2	3	4

### 6. How much difficulty have you had ejaculating when you have been sexually stimulated?

No stimulation	A lot of difficulty	Some difficulty	Little.... difficulty	No difficulty
0	1	2	3	4

**7. How much did you consider the amount of semen you ejaculate to be a problem for you?**

Did not climax	Big problem	Medium problem	Small problem	No problem
0	1	2	3	4

**7. To what extent have you considered a lack of sex drive to be a problem?**

Big	Medium	Small	Very small	No problem
0	1	2	3	4

**8. To what extent have you considered your ability to get and keep erections to be a problem?**

Big	Medium	Small	Very small	No problem
0	1	2	3	4

**9. To what extent have you considered your ejaculation to be a problem?**

Big	Medium	Small	Very small	No problem
0	1	2	3	4

**10. Overall, how satisfied have you been with your sex life?**

Very dissatisfied	Mostly dissatisfied	Neutral/mixed	Mostly satisfied	Very satisfied
0	1	2	3	4

## FSFI (FOR FEMALES ONLY)

**These questions ask about your sexual feelings and responses during the past 4 weeks. Please circle the most appropriate response.**

1. How often did you feel sexual desire or interest?	1 = Almost never or never 2 = A few times (less than half the time) 3 = Sometimes (about half the time) 4 = Most times (more than half the time) 5 = Almost always or always
2. How would you rate your level (degree) of sexual desire or interest?	1 = Very low or none at all 2 = Low 3 = Moderate 4 = High 5 = Very high
3. How often did you feel sexually aroused ("turned on") during sexual activity or intercourse?	0 = No sexual activity 1 = Almost never or never 2 = A few times (less than half the time) 3 = Sometimes (about half the time) 4 = Most times (more than half the time) 5 = Almost always or always
4. How would you rate your level of sexual arousal ("turn on") during sexual activity or intercourse?	0 = No sexual activity 1 = Very low or none at all 2 = Low 3 = Moderate 4 = High 5 = Very high
5. How confident were you about becoming sexually aroused during sexual activity or intercourse?	0 = No sexual activity 1 = Very low or no confidence 2 = Low confidence 3 = Moderate confidence 4 = High confidence 5 = Very high confidence
6. How often have you been satisfied with your arousal (excitement) during sexual activity or intercourse?	0 = No sexual activity 1 = Almost never or never 2 = A few times (less than half the time) 3 = Sometimes (about half the time) 4 = Most times (more than half the time) 5 = Almost always or always

7. How often did you become lubricated ("wet") during sexual activity or intercourse?	0 = No sexual activity 1 = Almost never or never 2 = A few times (less than half the time) 3 = Sometimes (about half the time) 4 = Most times (more than half the time) 5 = Almost always or always
8. How difficult was it to become lubricated ("wet") during sexual activity or intercourse?	0 = No sexual activity 1 = Extremely difficult or impossible 2 = Very difficult 3 = Difficult 4 = Slightly difficult 5 = Not difficult
9. How often did you <b>maintain</b> your lubrication ("wetness") until completion of sexual activity or intercourse?	0 = No sexual activity 1 = Almost never or never 2 = A few times (less than half the time) 3 = Sometimes (about half the time) 4 = Most times (more than half the time) 5 = Almost always or always
10. How <b>difficult</b> was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse?	0 = No sexual activity 1 = Extremely difficult or impossible 2 = Very difficult 3 = Difficult 4 = Slightly difficult 5 = Not difficult
11. When you had sexual stimulation or intercourse, how <b>often</b> did you reach orgasm (climax)?	0 = No sexual activity 1 = Almost never or never 2 = A few times (less than half the time) 3 = Sometimes (about half the time) 4 = Most times (more than half the time) 5 = Almost always or always
12. When you had sexual stimulation or intercourse, how <b>difficult</b> was it for you to reach orgasm?	0 = No sexual activity 1 = Extremely difficult or impossible 2 = Very difficult 3 = Difficult 4 = Slightly difficult 5 = Not difficult

13. How <b>satisfied</b> were you with your ability to reach orgasm during sexual activity or intercourse?	0 = No sexual activity 1 = Very dissatisfied 2 = Moderately dissatisfied 3 = About equally satisfied and dissatisfied 4 = Moderately satisfied 5 = Very satisfied
14. How <b>satisfied</b> have you been with the amount of emotional closeness during sexual activity between you and your partner?	0 = No sexual activity 1 = Very dissatisfied 2 = Moderately dissatisfied 3 = About equally satisfied and dissatisfied 4 = Moderately satisfied 5 = Very satisfied
15. How <b>satisfied</b> have you been with your sexual relationship with your partner?	1 = Very dissatisfied 2 = Moderately dissatisfied 3 = About equally satisfied and dissatisfied 4 = Moderately satisfied 5 = Very satisfied
16. How <b>satisfied</b> have you been with your overall sexual life?	1 = Very dissatisfied 2 = Moderately dissatisfied 3 = About equally satisfied and dissatisfied 4 = Moderately satisfied 5 = Very satisfied
17. How <b>often</b> did you experience discomfort or pain <b>during</b> vaginal penetration?	0 = Did not attempt intercourse 1 = Almost always or always 2 = Most times (more than half the time) 3 = Sometimes (about half the time) 4 = A few times (less than half the time) 5 = Almost never or never
18. How <b>often</b> did you experience discomfort or pain <b>following</b> vaginal penetration?	0 = Did not attempt intercourse 1 = Almost always or always 2 = Most times (more than half the time) 3 = Sometimes (about half the time) 4 = A few times (less than half the time) 5 = Almost never or never
19. How would you rate your <b>level</b> (degree) of discomfort or pain during or following vaginal penetration?	0 = Did not attempt intercourse 1 = Very high 2 = High 3 = Moderate 4 = Low 5 = Very low or none at all

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