Running head: GENDER, SOCIOSEXUALITY, AND AIDS PREVENTION

Effects of Gender and Sociosexuality on

AIDS-Preventive Self-Efficacy and AIDS-Preventive Behaviour

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#### Abstract

The information-motivation-behavioral skills (IMB) model of AIDS-preventive behaviour (Fisher & Fisher, 1992) was used to examine the relationships among AIDS-preventive knowledge, motivation, self-efficacy, and behaviour. Gender was examined to determine whether it predicted self-efficacy and behaviour. Sociosexual orientation was examined to determine whether it predicted self-efficacy and behaviour beyond gender. Having greater knowledge was found to predict higher self-efficacy whereas higher motivation predicted more AIDS-preventive behaviours. Gender predicted both selfefficacy and behaviour. Females obtained higher selfefficacy and behaviour scores than males. Females also tended to have more restricted sociosexual orientations than males. Sociosexual orientation predicted behaviour but not self-efficacy. Higher AIDS-preventive behaviour scores were predicted by a more restricted sociosexual orientation.

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Effects of Gender and Sociosexuality on

AIDS-Preventive Self-Efficacy and AIDS-Preventive Behaviour

Although unknown a few decades ago, Acquired Immune Deficiency Syndrome (AIDS) has become an epidemic according a report issued by UNAIDS (1999). According to the report, 33.6 million people globally are now infected with the Human Immunodeficiency Virus (HIV), the virus responsible for causing AIDS. More than 32 million of these individuals are adults, 14.8 million are women, and 1.2 million are children under the age of 15 years. Furthermore, in 1999 alone, there was an estimated 5.6 million new cases of AIDS. Since the beginning of the AIDS epidemic, the total number of AIDS-related deaths is estimated to be 16.3 million. Over 2 million of these deaths occurred in 1999 alone (UNAIDS, 1999).

As of June 1999, the prevalence of reported AIDS cases in the United States was 711,344. Adults and adolescents accounted for 702,748 cases while children under 13 years of age accounted for 8,596 (Seattle and King County Public Health, 2000). At that time, the total number of AIDS-related deaths reported in the United States by Seattle and King County Public Health was 420,201.

AIDS is a growing concern in Canada as well. According

to the Laboratory Centre for Disease Control (1999), the total number of Canadians diagnosed with AIDS from the beginning of the epidemic until December, 1998 was 16,236. The total number of positive HIV tests reported during that time was 43,347. Furthermore, the Centre estimated that an additional 11,000 to 17,000 HIV cases may have remained undiagnosed. In a more recent report by the Laboratory Centre for Disease Control (2000), it was stated that 1,122 new cases of HIV were diagnosed in the first 6 months of 1999 alone.

AIDS is a human disease caused by the presence of the Human Immunodeficiency Virus (HIV) in the body. When an individual is exposed to HIV, it enters the bloodstream attacking a form of white blood cell known as the "T helperlymphocyte" which is responsible for detecting invading viruses and activating the immune system to respond by producing killer T-cells to destroy them (Bernard & Krupat, 1994; Brandt, 1987). After attaching itself to the lymphocyte surface, HIV penetrates the body of the lymphocyte. It then constructs an enzyme which results in the T-cell becoming a base for the reproduction of HIV. In order to continue the process of reproduction, the new virus

then breaks away, invading other lymphocytes. As increasing numbers of lymphocytes are destroyed, the immune system slowly loses its ability to perform the natural function of fighting off infectious diseases caused by common pathogens that are easily regulated in an individual whose immune system is healthy. HIV, then, attacks the body's immune system, leaving an infected individual vulnerable to various opportunistic infections and cancers that the weakened immune system is no longer able to combat. As a result, an individual with AIDS may die from infections that would pose no immediate threat to an individual whose immune system is functioning normally (Bernard & Krupat, 1994; Greig, 1987). Symptoms of HIV Infection

Within a few weeks following HIV infection, an infected individual may develop a flu-like illness lasting from 3 to 10 days. Following these flu-like symptoms, the individual becomes asymptomatic and may remain so for up to 10 years. However, in approximately 5 to 10 years following HIV infection, the individual may develop a variety of symptoms in response to the gradual deterioration of the immune system. This stage of disease progression is known as AIDS-Related Complex (ARC) and includes symptoms such as fatigue, weight loss, chronic diarrhea, intermittent fever, chronic

enlarged lymph nodes, and thrush (an oral fungal infection) as well as recurrent yeast infections in women. Within 12 to 18 months after a diagnosis of ARC, the disease usually progresses to full-blown AIDS, consisting of ARC symptoms as well as a count of less than 200 T-helper cells for each cubic millimeter of blood, or the development of cancer or at least one of many characteristic opportunistic infections. The most common cancer is Kaposi's Sarcoma which affects the capillaries, causing purple-brown blotches on the skin. The most common opportunistic infection is a fungal infection known as pneumocystis carinni pneumonia. This condition affects the lungs, leading to a buildup of fluid and eventually to suffocation. In women, AIDS sometimes manifests itself differently by causing pelvic inflammatory disease or other gynecological problems. During the later stages of the progression of AIDS, an infected individual, male or female, may also experience a deterioration of mental functioning as a result of HIV infection in the brain. This condition is known as AIDS dementia complex (Bernard & Krupat, 1994).

#### HIV Antibody Testing

The presence of HIV antibodies in the bloodstream can be detected by a simple blood test 12 weeks following

exposure to the virus (Sherr & Quinn, 1993). Usually, an enzyme-linked immunosorbent assay (ELISA) test is first conducted. If an individual tests positive twice in response to the ELISA, a more sensitive technique is used, most commonly the Western Blot. It is not advisable to conduct HIV antibody testing immediately following suspected exposure, as the antibodies usually require up to 12 weeks to develop and may take up to 18 months to develop in some individuals (Leonard, 1990).

## Treatment of HIV Infection

Once the HIV antibodies are detected, an antiviral drug called AZT (zidovudine), also known as Retrovir, may be used to slow an individual's progression to full-blown AIDS as well as to alleviate some AIDS symptoms such as mental confusion and memory loss (Blakemore & Blakemore, 1991). Blakemore and Blakemore also reported in 1991 that an experimental drug known as dideoxyinosine (DDI) resulted in a decline in virus levels. Despite such symptomatic treatments, there is currently no treatment to rid the body of HIV or to prevent inevitable death resulting from a damaged immune system that cannot be restored (Blakemore & Blakemore, 1991). Currently, there is no cure for AIDS nor a vaccine to prevent individuals from contracting HIV

(Mulvihill, 1996). Therefore, the only means of protecting individuals from this fatal disease is to alter the behaviours necessary for the transmission of HIV (Becker & Joseph, 1988; Kelly & Murphy, 1992).

### HIV Transmission

HIV is found in the blood, semen, or vaginal fluid of an infected individual and is primarily transmitted (a) through sexual contact with an infected individual, (b) by sharing contaminated needles or syringes with an infected person during intravenous drug use, (c) from an infected mother to her infant and (d) from infected blood or blood products during unscreened transfusions (Chris, 1990). The present study focused only on the sexual transmission of HIV. While sexual abstinence is the only means of absolute protection against contracting HIV, it is not a realistic option for most people (Hepworth & Shernoff, 1989). However, other options that reduce one's risk of contracting the virus are (a) maintaining a mutually monogamous relationship with an individual who has tested negative for HIV, (b) avoiding sexual contact with an individual whose current health status and past history are unknown, and (c) using a latex condom during sexual intercourse (Greig, 1987). In fact, reviews of the literature (Becker & Joseph, 1988;

DiClemente, 1990) revealed that risk reduction occurred more frequently through modification of sexual behaviour than through the elimination of such behaviour.

## AIDS and Other Sexually Transmitted Diseases (STDs)

Recommendations to modify sexual behaviour are not new or unique in response to the AIDS epidemic. Condom use and the maintenance of a mutually monogamous relationship with a disease-free individual have been advocated in the past to protect individuals from sexually transmitted diseases (STDs) in many other epidemics as well. AIDS is merely the latest in the progression of the history of STDs such as syphilis, gonorrhea, chlamydia, herpes, and hepatitis B. In fact, until the advent of AIDS, syphilis was considered the most threatening of the STDs (Quetel, 1990). The AIDS epidemic is similar in some ways to the syphilis epidemic of the early twentieth century (Brandt, 1987, 1988; Cutler & Arnold, 1988; Fee, 1988). For example, both syphilis and AIDS are STDs caused by pathogens. They can also both be transmitted through nonsexual means (Fee, 1988). Perhaps the most striking similarity is the social perception of the two diseases. For example, both diseases have resulted in much fear and stigmatization and have been regarded by some individuals as punishments from God for loose sexual morals

(Yankauer, 1988). In both cases, individuals suffering from the disease have also been feared and held responsible for causing the affliction (Fee, 1988).

However, AIDS is a modern disease with unique public health problems (Brandt, 1988). Why is it that HIV related diseases are unique in comparison to other sexual epidemics? One major difference is that it is possible for an individual to be infected with HIV for years before anyone, including himself or herself, is aware of infection. An individual who has been infected with HIV may be asymptomatic for years. By the time such an individual is aware of infection, the HIV may have possibly spread to infect hundreds of other individuals. The other STDs, on the other hand, have much shorter incubations periods than AIDS. Syphilis, for example, usually has an incubation period of 2 to 6 weeks (Handsfield, 1992). Another frightening difference between HIV related diseases and other STDs is that once an individual develops full-blown AIDS, death is inevitable (Dixon, 1989).

AIDS is incurable and is commonly contracted through high risk sexual behaviours involving unprotected sexual contact with an infected partner. For this reason, education about safe-sex and AIDS seems to be the only viable means of

preventing the transmission of HIV through sexual intercourse. However, only modest advances have been obtained through public health interventions (Cleary, 1988).

Because AIDS is linked to sexual and reproductive issues, it is a problematic area for intervention (Becker & Joseph, 1988). Sexual behaviour may be especially difficult to change because it is determined by complex biological and psychological factors (Cleary, 1988). For example, when the consequences of the risk behaviour are significantly delayed and the immediate consequences of the behaviour are rewarding, behaviour change may be difficult (Kelly, St. Lawrence, Hood, & Brasfield, 1989). Another reason for this difficulty is misperception of risk; many individuals minimize their perceived susceptibility to AIDS because they associate the disease with particular social groups (e.g. homosexuals, intravenous drug users, and prostitutes) rather than with high-risk behaviour (Hayes, 1991; Patton, 1993).

Misperception of risk is not unique to the AIDS epidemic. Individuals often seek out particular social groups to blame in response to major disease problems. A similar trend was observed during the early stages of the syphilis epidemic. For example, syphilis was originally perceived as a disease associated with prostitutes and was

later redefined as a racial disease when a high percentage of the Black population, living in the slums and ghettos, were reported to have been infected with syphilis (Fee, 1988).

## History of HIV and AIDS

AIDS was originally conceptualized as a disease exclusive to homosexual males. This is reflected in the epidemiological categories and media terms used in the early stages of the HIV epidemic. The disease now known as AIDS, was by the latter part of 1981, referred to as Gay Related Immune Deficiency (GRID) or as the gay plague (Patton, 1993). In fact, the first documented cases of HIV infection may be traced to Los Angeles in 1981 when five homosexual men were diagnosed with pneumocystis carinni pneumonia, a rare form of pneumonia usually detected only in individuals with compromised immune systems. Within 1 month, the Centers for Disease Control announced that 26 homosexual men had been diagnosed with Kaposi's Sarcoma, a rare form of cancer associated with individuals who have damaged immune systems. By 1982, however, AIDS had been diagnosed in hemophiliacs and other recipients of blood transfusions as well as in heterosexual women and young children (Brandt, 1987). Since that time, the incidence of heterosexual HIV infection has

increased dramatically. Until 1992, the leading cause of AIDS in women, for example, was intravenous drug use. In 1992, this was overtaken by heterosexual transmission as the leading cause of AIDS in women. Furthermore, worldwide projection suggests that by the year 2000, 75 to 80 percent of all HIV infections will result from heterosexual transmission (Westhoff, McDermott, & Holcomb, 1996).

Educational interventions have not been highly effective in promoting behaviour change, especially in the heterosexual population (Kegeles, Adler, & Irwin, 1988; Kelly & Murphy, 1992). For example, DeBuono, Zinner, Daamen, and McCormack (1990) conducted a longitudinal study of change in the heterosexual behaviour of college women from 1975 to 1989. They found that despite the emergence of new infectious diseases such as AIDS, the sexual behaviour of college women did not change significantly in terms of their specific sexual acts and their number of sexual partners. Nevertheless, they did find that condom use increased over the 14 year period. However, the majority of women who were sexually active did not report condom use. In a review of the literature, Becker and Joseph (1988) found that modification of sexual and drug-use behaviour in response to the AIDS-threat was less common for heterosexual adolescents

and adults than for homosexual or bisexual males and intravenous drug users. As a result of the general lack of behaviour change in the heterosexual population, much of the current AIDS prevention research has focused on changing high-risk sexual behaviours in heterosexual samples (e.g., Catanie et al., 1995; Kusseling, Shapiro, Greenberg, & Wenger, 1996).

### AIDS Education and Prevention

Although many individuals have drastically changed their behaviour in response to the AIDS epidemic, many continue to put themselves at risk (Becker & Joseph, 1988; DeBuono et al., 1990; DiClemente, Forrest, Mickler, & Principal Site Investigators, 1990; Fisher, Fisher, Williams, & Malloy, 1994; MacDonald et al., 1990).

Behavioral interventions have been quite variable in their impact on behaviour change. Many AIDS education interventions in the past have focused on providing general AIDS knowledge and prevention strategies. However, many of these interventions have been unsuccessful in promoting a change in high-risk sexual behaviour (for a review, see J. D. Fisher & W. A. Fisher, 1992). Researchers have also failed to find a significant positive relationship between AIDS-related knowledge and AIDS-preventive behaviour (e.g.,

Baldwin & Baldwin, 1988; DiClemente et al., 1990; Weissman & the National AIDS Research Consortium, 1991). In fact, DiClemente et al. found that university students who scored lower on a measure of AIDS-knowledge were actually more likely to report changes in AIDS-preventive behaviour than those with higher scores.

AIDS-related knowledge, then, does not seem to be sufficient to change high-risk sexual behaviours. Various researchers (Goodwin & Roscoe, 1988; Kain, 1987; Katzman, Mulholland, & Sutherland, 1988; McDermott, Hawkins, Moore, & Cittadino, 1987) have found that college students exhibit a relatively high degree of AIDS-knowledge (as cited in Caron, Davis, Wynn, & Roberts, 1992). [This was also found by DiClemente et al. (1990).] Despite their knowledge about AIDS, however, college students continue to report risky sexual behaviour (Dommeyer, Marquard, Gibson, & Taylor, 1989; Fisher & Misovich, 1990; Goertzel & Bluebond-Langner, 1990; Thomas, Gilliam, & Iwrey, 1989, as cited in Mulvihill, 1996). Similar findings have also been reported by DeBuono et al. (1990), DiClemente et al. (1990), and MacDonald et al. (1990). Kegeles et al., (1988) suggested that, when dealing with adolescents, solely providing information about the effectiveness of condom use for reducing the risk of

sexually transmitted diseases may not be sufficient to produce increased condom use. Research has also revealed that women who engage in risky sexual behaviour, do not engage in these behaviours because of a lack of knowledge concerning AIDS and HIV transmission (Weissman & the National AIDS Research Consortium, 1991). Furthermore, it is suggested that general AIDS knowledge has not been related to intentions to engage in safe-sex practices. For example, Jemmott and Jemmott (1992), found that neither increases in general AIDS knowledge nor specific prevention-related beliefs were related to increased condom use intentions among black adolescent women. They did find, however, that increased self-efficacy for condom use was significantly related to increased condom use intentions.

Kasen, Vaughen, and Walter (1992) also argued that the traditional knowledge-based AIDS prevention programs should be modified to emphasize a skills-building component in an attempt to increase self-efficacy for AIDS preventive behaviours. This recommendation was based on the results of their research on AIDS-preventive self-efficacy among a sample of high school students. In this study, 181 Grade 10 students completed a survey measuring sexual behaviour, condom use, self-efficacy for AIDS-preventive behaviours,

beliefs about susceptibility to AIDS and the severity of AIDS, and outcome efficacy of AIDS preventive behaviours. The results of this study revealed that students who had lower self-efficacy for sexual refusal were twice as likely to have had sex within the previous year. Similarly, students with lower self-efficacy for using condoms correctly and consistently were 5 times less likely to have used condoms consistently during the previous year.

Moreover, both of these relationships persisted even after adjusting for students' beliefs about their susceptibility to AIDS, the severity of AIDS, and outcome efficacy of preventive behaviours.

Self-efficacy to perform AIDS preventive behaviours has also been found to be directly related to AIDS preventive behaviour in both homosexual males (Fisher, Fisher, Williams, & Malloy, 1994) and heterosexual college students (Fisher et al., 1994; Steers, Elliot, Nemiro, Ditman, & Oskamp, 1996). Rather than focusing solely on increasing general AIDS knowledge and prevention strategies, many current AIDS prevention programs are designed with the goal of increasing self-efficacy to perform AIDS-preventive behaviours (Jemmott & Jemmott, 1992; O'Leary, Jemmott, Goodhart, & Gebelt, 1996).

### Gender, Sociosexuality, and AIDS Prevention

Women are much more vulnerable to HIV infection through sexual intercourse than are men. In fact, they represent the most rapidly growing category of individuals afflicted with AIDS (Gentry, 1993, as cited in Bowd & Loos, 1998; Amaro, 1995). It has been estimated that during a single heterosexual contact, the risk of HIV transmission from an infected male to a female is from twice to twenty times more likely than transmission from an infected female to a male (Van de Wijgert & Padian, 1993). Furthermore, the primary means of reducing the sexual transmission of HIV is a traditional male condom. Women must negotiate condom use with their male partners and are, therefore, considered to be at a disadvantage in controlling their level of exposure to unsafe sexual behaviours (Amaro, 1995). Unfortunately, this problem has not been eliminated even as the female condom has become widely available in the United States. While this device is controlled by the female sexual partner and has various other advantages over the traditional male condom (Auerbach, Wypijewska, Brodie, & Institute of Medicine, 1994), many problems also associated with the male condom continue to exist, as it is visible and may be easily detected by the male sexual partner (O'Leary et al., 1996).

As a result, it has been proposed that AIDS prevention efforts should be aimed at increasing women's sense of empowerment in sexual relationships and their self-efficacy to perform AIDS preventive behaviours (e.g. Amaro, 1995; Kline & VanLandingham, 1994). Research has found, however, that women actually display higher scores than men on measures of AIDS preventive self-efficacy (O'Leary, Goodhart, Jemmott, & Boccher-Lattimore, 1992; Smith, McGraw, Casta, & McKinlay, 1996).

Human sexual behaviour, like most other social behaviours, is believed to be largely determined by socialization and experience (Gross, 1978). In their comprehensive, in-depth study of human sexual behaviour, Kinsey, Pomeroy, and Martin (1948) and Kinsey, Pomeroy, Martin, and Gebhard (1953) found that individuals vary substantially across a wide array of sociosexual attitudes and behaviours. Snyder, Simpson, and Gangestad (1986) found that several of these sociosexual features tend to covary. Based on these findings, they suggested that the sociosexual features might tap an individual dimension of sociosexual orientation or sociosexuality. Individuals at one end of the dimension are viewed as having an unrestricted orientation toward sexual relations and individuals at the other end are

considered to have a restricted orientation. Unrestricted individuals are those who tend to feel comfortable engaging in sexual relations without commitment or a close relationship with their sexual partners. Individuals who adopt a restricted orientation toward sexual relations, on the other hand, are those who tend to only engage in sex when they have committed or close relationships with their partners (Simpson & Gangestad, 1991; Snyder et al., 1986).

As a result of traditional gender role training, different sexual values have been promoted for males and females. Traditionally, men have been trained to be the initiators and active participants in sexual encounters. Women, on the other hand, have been taught to be the passive recipients who should refuse sex, thereby controlling the sexual desires of men. In other words, men are viewed as individuals who actively seek sexual relations while women are viewed as those who need to be seduced or coerced into sexual activity (Campbell, 1995). In general, then, males may be expected to adopt an unrestricted orientation to sociosexuality, and females, a more restricted approach.

Empirical evidence for gender differences in restricted versus unrestricted orientations to sociosexuality has been documented in the literature. Various researchers (Buss &

Barns, 1986; Eysenck, 1976; Griffit & Hatfield, 1985;
Hendrick, Hendrick, Slapion-Foote, & Foote, 1985) have found
that women tend to have less permissive attitudes than men
toward uncommitted sexual relations. Similarly, they also
tend to exhibit more restricted behaviour in terms of
engaging in uncommitted sexual relations (as cited in
Simpson & Gangestad, 1991). Despite these gender differences
in sociosexuality, an interesting observation in the studies
conducted by Kinsey et al. (1948, 1953), Snyder et al.
(1986), and various other researchers (Eysenck, 1976;
Hendrick et al., 1985; Hunt, 1974; Snyder et al., 1986, as
cited in Simpson & Gangestad, 1991), is a greater
variability within-gender than across gender on almost all
indices of sociosexuality.

Similar findings have also been documented by Schwartz and Gillmore (1990). They reported that women (a) become sexually active at a later age, (b) have a lower prevalence of premarital sex, (c) have less sexual partners, (d) engage in sex less frequently, (e) are less likely to engage in casual sex, and (f) are more likely to be monogamous than are men. They further stated, however, that although sexual behaviour continues to be strongly affected by gender, the sexual behaviour of males and females is increasing in

similarity over time. In a study examining similarities and differences in the sexual behaviour of males and females, Lottes (1993) also found evidence indicating that an increased proportion of women were engaging in the traditional male role of initiating sexual involvement as compared to the conclusions of a 1970s literature review conducted by Clark and Hatfield (as cited in Lottes, 1993). Lottes also found that males and females did not differ significantly on various measures of sexual behaviour.

Based on the findings of these studies, it seems that while gender differences continue to exist in terms of sexual behaviour and attitudes, important within-gender differences exist as well. Furthermore, traditional male and female sexuality appears to be changing, becoming increasingly similar over time. Much of the AIDS-prevention research has focused on gender differences in AIDS-preventive behaviours and attitudes (Catania et al., 1992; MacDonald et al., 1990; O'Leary et al., 1992; O'Leary et al., 1996; Singer et al., 1996; Ward & Ault, 1990). Surprisingly, however, research has failed to examine the relationship of sexuality and sexual attitudes to the adoption of AIDS-preventive behaviour in the heterosexual population (Campbell, 1995). Because AIDS prevention depends

on the modification of sexual behaviour, the findings of human sexuality research are extremely important in the study of AIDS prevention. By combining research on human sexuality and AIDS prevention, the effectiveness of AIDS prevention efforts should be increased (Kelly & Kalichman, 1995).

### The Present Study

The present study used the information-motivation-behavioral skills (IMB) model of AIDS-preventive behaviour (see Appendix A) (Fisher & Fisher, 1992, 1993; Fisher et al., 1994) to examine the effects of gender and sociosexual orientation on AIDS preventive self-efficacy and AIDS preventive behaviour. Social desirability, or the tendency of questionnaire items to elicit favorable responses (Crowne & Marlowe, 1964), was also measured to investigate whether it would affect, and therefore confound, the results of the present study.

According to the IMB model, AIDS risk reduction is determined by three fundamental factors: (a) information, or knowledge, about AIDS transmission and prevention, (b) motivation to change high risk sexual behaviour, and (c) behavioral skills to perform specific AIDS preventive acts.

Borrowing from Ajzen and Fishbein's Theory of Reasoned

Action (TRA), it is assumed that motivation to engage in AIDS preventive behaviour, similar to the behavioural intention component of the TRA, is a function of personal attitudes toward the behaviour and subjective social norms associated with the behaviour (as cited in Fisher & Fisher, 1992, 1993; Fisher et al., 1994). The behavioral skills component of the IMB model involves self-efficacy to perform various AIDS-preventive behaviours. In fact, the instruments used by Fisher and Fisher (1992, 1993), and Fisher et al. (1994) to assess behavioral skills were actually measures of individuals' perceptions of their own ability to engage in various AIDS-preventive behaviours. Bandura (1989) describes self-efficacy as an individual's belief that he or she is able to exercise control over his or her motivation, behaviour, and social environment. According to Bandura, discrepancies are created between knowledge and action as a result of self-inefficacious thinking. In other words, individuals who possess the requisite knowledge and skills fail to effectively manage various situations when they lack a feeling of self-efficacy. The assumption of the IMB model is that information and motivation work to a great extent through behavioral skills by activating them to initiate and maintain AIDS preventive behaviour patterns. Both

information and motivation may also have direct effects on behaviour change, especially when the preventive strategy requires relatively uncomplicated behaviours.

<u>Hypotheses.</u> The present study examined the following hypotheses:

- 1. Information, motivation and HIV self-efficacy would each be significant predictors of AIDS-preventive behaviour. More specifically, individuals reporting greater knowledge, motivation, and self-efficacy would obtain higher scores on a measure of AIDS-preventive behaviour.
- 2. Gender would be a significant predictor of AIDSpreventive behaviour. Specifically, females would report a
  greater tendency to engage in AIDS-preventive behaviour than
  males.
- 3. Sociosexual Orientation would predict AIDSpreventive behaviour beyond the effect of gender.

  Specifically, individuals with a restricted approach to
  sexual relations, regardless of gender, would report a
  greater tendency to engage in AIDS-preventive behaviour than
  those with an unrestricted approach.
- 4. Females would report a more restricted sociosexual orientation than males.

Because HIV self-efficacy has been found to predict

AIDS-preventive behaviour (Bandura, 1989; Fisher et al., 1994; Kasen et al., 1992; Steers et al., 1996), the following hypotheses were also examined:

- 5. Information and motivation would both be significant predictors of HIV self-efficacy. More specifically, individuals reporting greater knowledge and motivation would obtain higher scores on a measure of AIDS-preventive self-efficacy.
- 6. Gender would be a significant predictor of HIV self-efficacy. Specifically, females would report greater self-efficacy to engage in AIDS-preventive behaviours than males.
- 7. Sociosexual Orientation would predict HIV selfefficacy beyond the effect of gender. Specifically,
  individuals with a restricted approach to sexual relations,
  regardless of gender, would report higher levels of HIVself-efficacy than those with an unrestricted approach.

If the hypotheses of the present study were confirmed, it would be impractical to design AIDS prevention programs that appeal to women and men as unique and separate groups of individuals. Instead, when studying change in high risk sexual behaviours, it would be more useful to divide groups of individuals according to their sociosexual orientation rather than their gender.

#### Method

## Participants

The sample consisted of 193 volunteers (132 females, 61 males) from introductory psychology classes at Lakehead University. In exchange for participation, each student received one bonus point toward their final course grade.

Measures

Information. Knowledge of AIDS-risk behaviour was assessed using the AIDS Risk Behaviour Knowledge Test (Kelly, St. Lawrence, Hood, & Brasfield, 1990), a 40-item questionnaire (see Appendix B) designed to measure three general areas of knowledge: (a) high risk sexual and drug use practices, (b) methods of risk reduction, and (c) misconceptions about HIV and AIDS. For each item, participants were instructed to respond by indicating whether they believed the item to be true or false. The number of correctly answered items were then summed to obtain a total score of AIDS-risk behaviour knowledge. Higher scores on the AIDS-Risk Behaviour Knowledge Test reflect greater knowledge concerning AIDS-risk behaviour while lower scores reflect less knowledge.

The AIDS Risk Behaviour Knowledge Test was found to have good reliability and validity (Kelly et al., 1990).

Internal consistency was demonstrated by obtaining a measure of split-half reliability for the even-numbered and odd-numbered items. The Spearman-Brown split-half reliability coefficient was .73. High test-retest reliability was also demonstrated by a test-retest reliability coefficient of .84.

Kelly et al. (1990) conducted a test of construct validity by comparing AIDS-Risk Behaviour Knowledge Test scores before and after an AIDS education program that included information concerning AIDS, HIV infection, risk behaviour, and AIDS prevention. A repeated measures analysis of variance was used to compare pre- and post-test scores. Test scores were found to be significantly higher following the intervention (F(1, 32) = 9.72, p < .05).

Motivation. Motivation to engage in AIDS-preventive behaviour was assessed using the Behavioral Intentions for AIDS Prevention Scale, part of a 24-item questionnaire (see Appendix C) measuring respondents' attitudes, subjective norms, and behavioral intentions regarding the following 8 AIDS-preventive behaviours: (a) not engaging in sexual intercourse (b) talking with one's partner about safer sex, (c) attempting to persuade one's partner to practice only safer sex, (d) buying condoms, (e) always having condoms on

hand, (f) always using condoms during sexual intercourse,

(g) taking the HIV-antibody test, and (h) asking one's

partner to take the HIV-antibody test. The questionnaire is

a part of the Sexual Opinion Questionnaire (Misovich,

Fisher, & Fisher, in press).

For each of the eight AIDS-preventive behaviours listed above, participants were asked to rate the probability that they would perform the behaviour within the next month.

Participants rated each item on a 5-point scale ranging from 1 (very likely) to 5 (very unlikely). The responses were then summed to calculate a measure of AIDS-preventive behavioral intentions. Low scores on the Behavioral Intentions for AIDS-Prevention Scale reflect high levels of AIDS-preventive motivation while high scores reflect lower levels of motivation.

The Behavioral Intentions for AIDS Prevention Scale was found to have high internal consistency for a sample of heterosexual university students (Cronbach's alpha = .80). The mean behavioral intentions score for the sample was 18.7 (Misovich et al., in press). Validity evidence was provided by J. Fisher et al. (in press) who found that an AIDS-prevention intervention produced changes in behavioral intention scores while a control condition did not produce

such an effect (as cited in Misovich et al., in press). The scale's validity was also supported by the finding that very similar behavioral intention items predicted AIDS-preventive behaviours across samples of at-risk individuals and across time.

Self-Efficacy. Self-efficacy to engage in various AIDS-preventive behaviours was assessed using a written version of the HIV Self-Efficacy Scale (Smith et al., 1996), a nine-item scale in which participants are asked to indicate their perceived ability to perform specific AIDS-preventive acts (see Appendix D). On a 5-point scale ranging from not sure at all (1) to very sure (5), participants were asked to rate how certain they were that they would be able to perform each of the AIDS-preventive acts. Scores were then added to obtain a total HIV self-efficacy score such that higher scores reflect higher self-efficacy to engage in AIDS-preventive behaviour.

The HIV Self-Efficacy Scale includes items dealing with condom use, negotiations with potential sexual partners, and peer pressure concerning intravenous drug use (Smith et al., 1996). According to Smith et al., these items may be treated as conceptually distinct subscales. The researchers indicate, however, that each of the three conceptual areas

are associated with one another. As a result, a heterogenous summary of the items is likely to be more useful than individual subscales for most research purposes (Smith et al., 1996). Consequently, analyses in the present study have been conducted using the total HIV Self-Efficacy Scale as opposed to separate analyses for each individual subscale.

The HIV Self-Efficacy Scale was found to have high internal consistency (Cronbach's alpha = .77) Similar reliability coefficients were obtained for women (Cronbach's alpha = .76) and men (Cronbach's alpha = .78). Evidence of construct validity was obtained by regressing total self-efficacy scores on demographic characteristics and behaviours theoretically related to the self-efficacy construct. A strong monotonic relationship was found between self-efficacy and recent sexual activity. Participants who were more sexually active in the past six months scored significantly higher on self-efficacy. The purchase of condoms and condom use frequency were also found to be positively related to self-efficacy scores. All relationships were significant at the .05 or .001 level.

AIDS-Preventive Behaviour. The Safe Sex Behavior
Questionnaire (SSBQ) (see Appendix E) (DiIorio, Parsons,
Lehr, Adame, & Carlone, 1992) was used to assess AIDS-

preventive behavior. The SSBQ consists of 27-items measuring 5 factors: (a) avoidance of risky behaviors, (b) use of assertiveness skills, (c) use of condoms, (d) avoidance of body fluids, and (e) avoidance of anal intercourse/ homosexual practices. Ten of the items are negatively worded and seventeen of them are positively worded. Participants were asked to respond to each item by indicating the degree to which they engage in each type of safe sex practice. They indicated the frequency of each behaviour by responding to each item on a 4-point scale ranging from never to always (1 = never, 2 =sometimes, 3 =most of the time, 4 =always). Higher scores on the SSBQ indicate greater frequency of engaging in safe sex behaviour. For purposes of simplicity, analyses in the present study have been conducted using only total SSBQ scores as opposed to separate analyses for each individual subscale.

The SSBQ has demonstrated adequate reliability and validity (DiIorio, et al., 1992). Cronbach's alpha computed for the sums of all scale items was .82. Content validity was assessed by comparing expert's ratings on each item of the SSBQ. The content validity index was 98% indicating a high degree of agreement that each item measured safe sex behaviour. Construct validity was measured by correlating

the SSBQ with a measure of general assertiveness and a measure of general risk-taking. A significant correlation was found between the SSBQ and risk-taking behaviour for males and females (-.34 and -.21 respectively). Significant correlations were also found between the SSBQ and assertiveness (.39 for males and .27 for females). Each of these correlations were in the predicted direction.

Sociosexual Orientation. Approach to sexuality was measured using the Sociosexual Orientation Inventory (SOI; Simpson & Gangestad, 1991) (see Appendix F). The SOI is a self-report measure of sociosexual attitudes and behaviours. It consists of seven items measuring five indicators of sociosexual orientation. Three of the items are attitudinal measures and four of them are behavioral. The three attitudinal items are measured on a 9-point Likert scale ranging from strongly agree to strongly disagree. A formula recommended by Simpson and Gangestad was employed to create a unit-weighted index of SOI. High scores on the SOI reflect an unrestricted sociosexual orientation and low scores reflect a restricted orientation.

Simpson and Gangestad (1991) demonstrated high testretest reliability of the SOI over a two-month period ( $\underline{r}$  = .94). They also provided evidence of convergent validity for the SOI by demonstrating that individuals with an unrestricted sociosexual orientation tend to (a) engage in sex at an earlier point in their relationships ( $\underline{r} = -.32$ ,  $\underline{p} < .001$  for women,  $\underline{r} = -.20$ ,  $\underline{p} < .05$  for men), (b) engage in concurrent sex with more than one partner ( $\underline{r} = .27$ ,  $\underline{p} < .001$  for women,  $\underline{r} = .33$ ,  $\underline{p} < .001$  for men), and (c) be involved in relationships characterized by less investment, love, commitment, and dependency ( $\underline{r} = -.50$ ,  $\underline{p} < .001$  for females,  $\underline{r} = -.61$ ,  $\underline{p} < .001$  for males).

Evidence of discriminant validity was provided by the following findings: (a) SOI scores were not significantly correlated with frequency of sexual intercourse in sexually active couples, and (b) SOI scores were significantly correlated with frequency of sexual intercourse among sexually inactive couples ( $\underline{r}=.28$ ,  $\underline{p}<.05$  for men,  $\underline{r}=.53$ ,  $\underline{p}<.001$  for women). These findings seem to indicate that unrestricted individuals, women in particular, are more willing to engage in sex outside their primary relationships. Because the SOI does not covary with frequency of sex across relationship context, individual differences in sociosexuality seem to be distinguishable from general level of sex drive per se (Simpson & Gangestad, 1991).

Social-Desirability. A short form of the Marlowe-Crowne Social-Desirability Scale (M-C Scale) (Reynolds, 1982) was used to assess the degree to which participants attempt to present themselves in a favorable light (see Appendix G). The original M-C Scale (Crowne & Marlowe, 1964) consists of 33 statements dealing with personal attitudes and traits. Reynolds employed factor analysis to develop three short forms of the M-C Scale (form A, form B, and form C). Of the three short forms, form C (M-C C) is the most psychometrically sound and the most viable substitute for the original M-C Scale. The reliability of M-C C ( $\underline{r}_{KR-20}$  = .76) compares with the reliability of the original form ( $\underline{r}_{KR}$ .  $_{20}$  = .82) (as cited in Reynolds, 1982). Concurrent validity of each of the short forms was assessed by examining their ability to correlate with the original M-C Scale and the Edwards Social Desirability Scale. Of the three short forms, M-C C correlated most highly with the original M-C Scale (r = .93, p < .001). The correlation between M-C C and the Edwards Social Desirability Scale ( $\underline{r}$  = .41,  $\underline{p}$  < .001) was also consistent with the correlation of the Edwards Social Desirability Scale with the original M-C Scale (r = .47, p < .47.001) (as cited in Reynolds, 1982). As a result of these findings, M-C C, consisting of 13 of the original items (#3,

#6, #10, #12, #13, #15, #16, #19, #21, #26, #28, #30, #33), was used in the present study. As in the original, participants were instructed to respond to each item by indicating whether the statement was true or false as it applied to them personally. Five of the items are keyed true and eight of them are keyed false. High scores on the M-C C reflect a social-desirability response set.

### Design and Procedure

Participants were recruited during their Introductory Psychology classes. At the beginning of their class times, students were presented with a brief verbal description of the study and those interested in participating were asked to remain after class to receive a series of questionnaires. They were informed that those who signed up for the study would receive one bonus point toward their final course grade. Those interested were provided with a series of questionnaires including a cover letter, a consent form, and the demographic questionnaire employed by Misovich et al. (in press) (see Appendices H, I, & J, respectively). It was requested that each participant complete the questionnaires at home and return them to the office of the researcher within the next week.

The questionnaires were distributed to 276 students. Of

the initial 276, 197 were completed and returned. Four of those were completed by participants who indicated they were either homosexual or bisexual. As a result, their data could not be used for the purpose of the present study examining sexual attitudes and AIDS-preventive behaviours in the heterosexual population. Once all the data were collected, debriefing forms were made available to all participants at the office of the researcher (see Appendix K).

#### Results

## Sample Characteristics

The sample consisted of 193 participants with a mean age of 20.14 ( $\underline{SD}$  = 2.96). One hundred, thirty-two of the participants (68.4%) were female and 61 (31.6%) were male. The mean age of females was 19.86 ( $\underline{SD}$  = 3.06) and the mean age of males was 20.74 ( $\underline{SD}$  = 2.65).

The majority of the sample (87.1%) reported that they were enrolled in their first year of undergraduate study while 9.3% were enrolled in their second year. Third, fourth or fifth year status was reported by 3.1% of the sample.

Current year of study was not reported by one participant (0.5%).

The majority of participants (89.6%) identified themselves as Caucasian. African Canadians accounted for 0.5% of the sample and Native Canadians accounted for 1.6%.

One percent of participants identified themselves as Asian or Pacific Islander and 5.2% identified themselves as "other." Ethnic background was not reported by four participants (2.1%).

The majority of the present sample (94.3%) identified themselves as single. Two participants (1.0%) reported that they were divorced and 4.7% identified themselves as married or living common law.

### Overview of Analyses

After all the data were collected, correlation matrices were conducted examining the intracorrelations among the total scales and subscales of the SSBQ as well as the HIV Self-Efficacy Scale. A correlation matrix was also used to determine the relationships among the variables for the entire sample. Similar matrices were conducted separately for males and females.

A hierarchical multiple regression analysis was conducted to examine whether Gender, Information, Motivation, and HIV Self-Efficacy were significant predictors of AIDS-preventive behaviour (SSBQ) and to determine whether sociosexual orientation (SOI) predicted SSBQ beyond the effect of Gender. A second hierarchical multiple regression was conducted to investigate the effects of Gender, Information, and Motivation on HIV Self-Efficacy

and to examine whether SOI predicted HIV Self-Efficacy beyond the effect of Gender. Social desirability was partialed out in both analyses in order control for its effects upon the dependent variables. <u>t</u>-tests were used to determine whether males and females differed on SSBQ, HIV Self-Efficacy, and SOI. Table 1 presents the means and standard deviations of the variables investigated in the present study.

### Correlations

SSBQ. It was found that the total SSBQ was positively correlated with each SSBQ subscale (see Table 2). It was observed that the condom use, body fluids, and risky behavior subscales were positively correlated with one another as well. The risky behaviour subscale was also found to be positively correlated with the assertiveness skills subscale while the condom use subscale was positively correlated with the anal intercourse/homosexual practices subscale.

<u>HIV Self-Efficacy.</u> As can be seen in Table 3, the total HIV Self-Efficacy Scale was found to be positively correlated with the condom use subscale ( $\underline{r} = .57$ ,  $\underline{p} < .001$ ), the negotiation subscale ( $\underline{r} = .88$ ,  $\underline{p} < .001$ ), and the drug use subscale ( $\underline{r} = .48$ ,  $\underline{p} < .001$ ). It was also found that the

negotiation subscale was positively correlated with both the condom use ( $\underline{r}$  = .22,  $\underline{p}$  < .01) and drug use ( $\underline{r}$  = .19,  $\underline{p}$  < .01) subscales. However, the condom use and drug use subscales were not significantly correlated with each other.

Intercorrelations (Entire Sample). Intercorrelations among the primary variables are presented in Table 4. SSBQ was found to be positively correlated with HIV Self-Efficacy ( $\underline{r}=.31$ ,  $\underline{p}<.001$ ) and social desirability ( $\underline{r}=.22$ ,  $\underline{p}<.01$ ). It was also found to be negatively correlated with Motivation ( $\underline{r}=-.59$ ,  $\underline{p}<.001$ ) and SOI ( $\underline{r}=-.41$ ,  $\underline{p}<.001$ ). SOI was also found to be positively correlated with Motivation ( $\underline{r}=.16$ ,  $\underline{p}<.05$ ) and negatively correlated with social desirability ( $\underline{r}=-.31$ ,  $\underline{p}<.001$ ). Social desirability and Motivation were not significantly correlated with each other and Information was not found to be related significantly to any of the other variables.

Intercorrelations (Females). When correlations were conducted separately according to Gender (see Table 5), it was found that the relationship between Motivation and SOI became nonsignificant for females. Similarly, social desirability was no longer significantly correlated with SSBQ. While the correlation between SSBQ and HIV Self-Efficacy remained significant (r = .18, p < .05), the

relationship was weaker and less significant than for the entire sample (r = .31, p < .001).

Intercorrelations (Males). Intercorrelations among the variables for males are presented in Table 6. Similar to the results obtained for females, it was found that the relationships between Motivation and SOI as well as between social desirability and SSBQ were not significant for male participants. Furthermore, the relationship between SOI and social desirability also became nonsignificant for males when correlations were conducted separately by Gender. While the correlation between SOI and SSBQ remained significant ( $\underline{r} = -.26$ ,  $\underline{p} < .05$ ), the strength and significance level decreased.

# Hierarchical Multiple Regression Analyses

A hierarchical multiple regression analysis (see Table 7) was conducted to test the hypotheses that (a)

Information, Motivation and HIV Self-Efficacy would each be significant predictors of SSBQ, (b) Gender would be a significant predictor of SSBQ, and (c) SOI would predict SSBQ beyond the effect of Gender. In order to control for the effect of social desirability, it was entered at Step 1 of the regression equation. Gender was entered at Step 2 followed by SOI, Information, Motivation, and HIV Self-

Efficacy which were entered simultaneously at Step 3. The criterion variable was SSBQ.

Social desirability, entered at Step 1, was not found to be a significant predictor of SSBQ. Gender was added at Step 2 of the equation and was found to be a significant predictor of SSBQ,  $\Delta F(1, 185) = 21.55$ , p < .001,  $\Delta R^2 = .10$ . This finding was in the expected direction with females (M = 1) 84.16) predicted to have a greater tendency to engage in AIDS-preventive behaviour (i.e., higher SSBQ scores) than males (M = 77.30). When the remaining variables were entered at Step 3, the overall regression equation was found to be significant,  $\Delta F(4, 181) = 28.35$ , p < .001,  $\Delta R^2 = .34$ . Examining the unique contribution of each independent variable at Step 3, it was observed that the effect of Gender was no longer significant, t(187) = 1.81, p = .07. The variables which contributed uniquely to the regression equation at Step 3 were Motivation,  $\underline{t}(187) = -8.15$ ,  $\underline{p} <$ .001, which accounted for most of the variance, followed by SOI, t(187) = -5.40, p < .001, and HIV Self-Efficacy, t(187)= 3.12,  $\underline{p}$  < .01. The findings for each of these variables were in the expected directions. Specifically, individuals who were more motivated to engage in AIDS-preventive behaviour and more self-efficacious regarding AIDS-

preventive behaviour also had a greater tendency to actually engage in AIDS-preventive behaviour than those who were less motivated and self-efficacious. While the effect of Information was not significant in the prediction of SSBQ, the relationship between Information and SSBQ was in the expected direction.

A second hierarchical multiple regression analysis (see Table 8) was also conducted to test the hypotheses that (a) Information and Motivation would both be significant predictors of HIV Self-Efficacy, (b) Gender would be a significant predictor of HIV Self-Efficacy, and (c) SOI would predict HIV Self-Efficacy beyond the effect of Gender. In order to partial out the effects of social desirability, it was entered at Step 1 of the regression equation. Gender was entered at Step 2 and SOI, Information, and Motivation were entered simultaneously at Step 3. The criterion variable was HIV Self-Efficacy.

In the analysis of HIV Self-Efficacy, social desirability was entered at Step 1 and was not found to be a significant predictor. Gender, which was added to the equation at Step 2, was found to be a significant predictor of HIV Self-Efficacy,  $\Delta \underline{F}(1, 185) = 12.61$ ,  $\underline{p} < .001$ ,  $\Delta \underline{R}^2 = .06$ . As expected, being female was related to increased HIV

Self-Efficacy scores. When SOI, Information, and Motivation were entered at Step 3, they collectively added some variance to the prediction of HIV Self-Efficacy,  $\Delta F(3, 182)$ = 3.91,  $\underline{p}$  < .05,  $\triangle \underline{R}^2$  = .06. When examining the unique contribution of each independent variable at Step 3, it was found that only two of them contributed significantly to the overall regression equation: Information, t(187) = 2.97, p < .01, and Gender,  $\underline{t}$  (187) = 2.88,  $\underline{p}$  < .01. Both of these variables predicted HIV Self-Efficacy in the expected direction. Specifically, being female and having greater knowledge concerning AIDS-risk behaviour predicted greater levels of HIV Self-Efficacy. While the unique contributions of Motivation and SOI were not significant, the relationship of each of these variables with HIV Self-Efficacy was in the expected direction. The results are presented in Table 8. t-tests

<u>t</u>-tests were conducted to examine the hypotheses that (a) females would report a greater tendency to engage in AIDS-preventive behaviour than males, (b) females would report greater self-efficacy to engage in AIDS-preventive behaviour than males, and (c) females would report a more restricted SOI than males. The results of the <u>t</u>-tests are displayed in Table 9.

The results of the <u>t</u>-tests confirmed all of the relevant hypotheses. Specifically, it was found that females ( $\underline{M} = 84.16$ ) scored significantly higher than males ( $\underline{M} = 77.30$ ) on a measure of AIDS-preventive behaviour,  $\underline{t}(191) = -4.69$ ,  $\underline{p} < .001$ . Females ( $\underline{M} = 42.36$ ) also scored significantly higher than males ( $\underline{M} = 40.79$ ) on a measure of HIV Self-Efficacy,  $\underline{t}(191) = -3.06$ ,  $\underline{p} < .01$ . A significant Gender difference was also observed for SOI,  $\underline{t}(70.03) = 6.10$ ,  $\underline{p} < .001$ . As predicted, females ( $\underline{M} = 32.42$ ) tended to have a more restricted approach toward sexual relations and males ( $\underline{M} = 66.33$ ) a more unrestricted approach. No Gender difference was found for Information or Motivation.

### Discussion

This study attempted to clarify the relationships among gender, sociosexual orientation and the variables of the IMB model of AIDS-preventive behaviour: (a) information, (b) motivation, (c) behavioral skills, and (d) AIDS-preventive behaviour (Fisher & Fisher, 1992, 1993; Fisher et al., 1994).

#### Predictors of AIDS-Preventive Behaviour

In hypotheses 1, it was predicted that information, motivation, and HIV self-efficacy would each be significant predictors of AIDS-preventive behaviour. As predicted, and

in accordance with the IMB model of AIDS-preventive behaviour (Fisher & Fisher, 1992, 1993; Fisher et al., 1994), motivation and HIV self-efficacy were both found to be significant predictors of AIDS-preventive behaviour. Specifically greater motivation to engage in AIDS-preventive behaviour and a higher level of HIV self-efficacy predicted a higher tendency to actually engage in AIDS-preventive behaviour. Information, on the other hand, was not a significant predictor. These results suggest that while motivation and HIV self-efficacy both seem to play an important role in contributing to AIDS-preventive behaviour, information, or knowledge concerning AIDS-risk behaviour, does not appear to have an influence in the present sample. This finding is similar to findings by Baldwin and Baldwin (1988), DiClemente et al. (1990), and Weissman and the National AIDS Research Consortium (1991) who also failed to find a significant relationship between AIDS-related knowledge and AIDS-preventive behaviour. Similarly, Mulvihill (1996) reported that college students reported risky sexual behaviour despite a high level of AIDS-related knowledge.

Hypothesis 2, which predicted that females would report a greater tendency to engage in AIDS-preventive behaviour

than males, was confirmed in the present study. It appears that a gender difference in safe sex behaviour tendencies does exist. This conclusion is supported by the research of Ward and Ault (1990) who also reported that females tend to engage in more safe sex practices than males.

The third hypothesis, which stated that sociosexual orientation would predict AIDS-preventive behaviour beyond the effect of gender, was confirmed. The results suggest that, regardless of gender, individuals with a restricted approach toward sexual relations have a greater tendency to engage in AIDS-preventive behaviour than those with an unrestricted approach. This supports the idea that sociosexual orientation, or an individual's approach toward casual sex, may play a more important role than gender in determining an individual's tendency to engage in AIDS-preventive behaviour.

# Predictors of HIV Self-Efficacy

Hypothesis 5 stated that information and motivation would both be significant predictors of HIV self-efficacy. The results of the present study indicate that information, but not motivation, was a significant predictor of self-efficacy. According to these results, information or knowledge appears to play an important role in determining

the degree to which an individual feels capable of successfully engaging in AIDS-preventive behaviour. Specifically, individuals with greater knowledge concerning AIDS-risk behaviour also have higher levels of AIDS-preventive self-efficacy, or feel more capable of engaging in AIDS-preventive behaviour, than those with less knowledge. Motivation, however, does not appear to play an important role in one's perceived ability to effectively carry out such behaviour.

According to hypothesis 6, females would report greater self-efficacy to engage in AIDS-preventive behaviour than males. As hypothesized, females scored higher on a measure of HIV self-efficacy than males. It may be concluded, then, that females in the present sample are more self-efficacious than males with respect to engaging in AIDS-preventive behaviour. This supports similar findings documented by O'Leary et al. (1992), Smith et al. (1996), and Walter et al. (1992). Not surprisingly, females in the present study were found to have a have a greater tendency to engage in AIDS-preventive behaviour as well. It may, therefore, be concluded from these results that gender appears to play a role in determining an individual's tendency to engage in AIDS-preventive behaviour as well as his or her perceived

ability to effectively engage in such behaviour. Selfefficacy, in turn, also influences AIDS-preventive
behaviour. In other words, gender may influence AIDSpreventive behaviour directly as well as indirectly through
its effect upon HIV self-efficacy, a critical determinant of
AIDS-preventive behaviour according to the IMB model (Fisher
& Fisher, 1992, 1993; Fisher et al., 1994).

The seventh hypothesis predicted that sociosexual orientation would predict HIV self-efficacy beyond the effect of gender. This hypothesis was not confirmed in the present study. Sociosexuality, then, does not appear to play a significant role above and beyond gender in determining one's perceived ability to successfully engage in AIDS-preventive behaviour. As previously stated, however, sociosexual orientation was found to be a significant predictor of AIDS-preventive behaviour. It appears, then, that sociosexuality has a direct effect on AIDS-preventive behaviour but does not seem to influence behaviour indirectly through an effect on HIV self-efficacy. Gender, on the other hand, appears to influence AIDS-preventive behaviour directly as well as indirectly through its effect upon HIV self-efficacy.

### Gender and Sociosexuality

The fourth hypothesis predicted that females would report a more restricted approach to casual sex than males. The results confirmed this hypothesis. It appears, as a result, that females do tend to posses more restricted attitudes toward casual sex than males. This finding is supported by similar research (e.g., Buss & Barnes, 1986; Eysenck, 1976; Griffit & Hatfield, 1985; Hendrick et al., 1985; as cited in Simpson & Gangestad, 1991).

# Summary of Findings

According to the IMB model of AIDS-preventive behavior (Fisher & Fisher, 1992, 1993; Fisher et al., 1994), information and motivation each work through AIDS-preventive self-efficacy, to predict AIDS-preventive behaviour. The model also proposes that information and motivation may also have a direct effect on AIDS-preventive behaviour.

According to the results of the present study, information does appear to act through HIV self-efficacy to predict AIDS-preventive behaviour but does not have a direct effect on behaviour. Conversely, motivation has a direct effect on behaviour but does not appear to act through self-efficacy (see Appendix L). It may be concluded, therefore, that in the present sample, the IMB model of AIDS-preventive

behaviour was partially supported.

Other observations are that sociosexual orientation had a direct effect upon AIDS-preventive behaviour while gender predicted AIDS-preventive behaviour directly and indirectly (see Appendix M). In addition, females were found to have a more restricted sociosexual orientation than males. They also reported greater self-efficacy to engage in AIDS-preventive behaviour than males as well as a greater tendency to actually engage in such behaviour.

Sample Size. One limitation of the present study was the sample size. Similar studies employing the IMB model of AIDS-preventive behaviour have employed much larger samples. For example, in studies conducted by Fisher, Fisher, Misovich, Kimble, and Malloy (1996) and Fisher et al. (1994), the sample sizes were 744 and 290, respectively. Had a larger sample size been obtained in the present study, more of the expected results may have been found.

Ratio of Males to Females. Another major flaw in the present study was the ratio of male to female participants. More than 2/3 of the present sample consisted of female participants. The samples used in studies by Fisher et al. (1996) and Fisher et al. (1994) involved a much more even ratio of males to females. In both studies, participants

were 49% male and 51% female. The discrepancy between the number of males and females may have contributed to some of the non-significant findings. For example, sociosexual orientation did not predict HIV self-efficacy beyond the effect of gender. With a more equal proportion of males and females in the sample, sociosexual orientation may have been a significant predictor of self-efficacy.

Generalizability of Results. A third limitation concerns the sample used in the present study and the generalizability of the results obtained. The present sample was not ethnically diverse, consisting almost solely of participants who identified themselves as Caucasian. Consequently, the results may not be generalizable to individuals of other ethnic backgrounds. Furthermore, the present study examined predictors of AIDS-preventive selfefficacy and behaviour in an exclusively heterosexual sample. The results, therefore, may also not be generalizable to populations of individuals who identify themselves as homosexual or bisexual. Similarly, the sample used in the present study consisted almost solely of young, single undergraduate students. Consequently, the findings may not be generalizable to other populations such as highschool students or middle-aged adults who, after years of marriage, find themselves widowed, separated, or divorced.

### Future Directions

A number of strategies may improve research in the future. First of all, future research should use a larger sample size than the present study, such as those used by Fisher et al. (1994) and Fisher et al. (1996). Furthermore, a more equal ratio of males and females should also be employed. Thirdly, in order to investigate the generalizability of the results obtained in the present study, further studies should be conducted to examine the predictors of AIDS-preventive self-efficacy and behaviour in other populations such as high school students, middle-aged adults, and undergraduate students who identify themselves as homosexual or bisexual. An attempt to examine the prediction of AIDS-preventive self-efficacy and behaviour in more ethnically diverse samples is recommended as well.

Future research should also attempt to examine the unique contributions of attitudes and subjective norms, the two components of motivation, to AIDS-preventive self-efficacy and behaviour. Similarly, it is also suggested that a more thorough examination of the unique contributions of each subscale of the HIV self-efficacy scale predicting SSBQ be undertaken. A further suggestion is that each of the independent variables used in the present study be examined

in terms of their ability to predict individual subscales of both the HIV Self-Efficacy scale and the SSBQ.

A useful suggestion for future research, offered by Simpson and Gangestad (1991), is to examine whether sociosexual orientation reflects a stable, trait-like personality dimension, and if so, how its manifestations change over time. Simpson and Gangestad further suggest that future studies examine the underlying motivational bases of sociosexuality. Exploring these suggestions may further clarify the complex relationships of gender, sexual attitudes, and sexual behaviour.

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Table 1
Means and Standard Deviations of Measures

| Variable |          | <u>М</u> а | le    | _        | Femal    | e<br> |          | Tota     | l     |
|----------|----------|------------|-------|----------|----------|-------|----------|----------|-------|
|          | <u>n</u> | <u>M</u>   | SD    | <u>n</u> | <u>M</u> | SD    | <u>N</u> | <u>M</u> | SD    |
| INFO     | 61       | 35.90      | 2.64  | 132      | 35.96    | 2.10  | 193      | 35.94    | 2.28  |
| MOT      | 61       | 24.30      | 7.12  | 132      | 22.67    | 7.69  | 193      | 23.18    | 7.53  |
| SE       | 61       | 40.79      | 3.86  | 132      | 42.36    | 3.02  | 193      | 41.86    | 3.38  |
| SOI      | 60       | 66.33      | 41.23 | 128      | 32.42    | 18.23 | 188      | 43.24    | 31.83 |
| SSBQ     | 61       | 77.30      | 8.60  | 132      | 84.16    | 9.83  | 193      | 81.99    | 9.96  |

Note. INFO=Information, MOT=Motivation, SE=HIV Self-Efficacy, SOI=Sociosexual Orientation, SSBQ=AIDS-Preventive Behaviour.

Table 2

Correlations Among Total SSBQ and Each of its Subscales

| Var | iable                                     | 1     | 2    | 3      | 4     | 5     | 6     |
|-----|---|-------|------|--------|-------|-------|-------|
| 1.  | SSBQ                                      |       | 76** | .54**  | .60** | .60** | .30** |
| 2.  | Condom Use                                | .76** |      | .04    | .28** | .47** | .26** |
| 3.  | Assertiveness Skills                      | .54** | .04  |        | .35** | .11   | 08    |
| 4.  | Risky Behavior                            | .60** | .28* | * .35* | ·*    | .23*  | .14   |
| 5.  | Body Fluids                               | .60** | .47* | * .11  | .23   | } *   | .05   |
| 6.  | Anal Intercourse/<br>Homosexual Practices | .30** | .26* | *(     | )8 .1 | .05   |       |

 $<sup>\</sup>frac{}{*\underline{p} < .01. **\underline{p} < .001.}$ 

Table 3 Correlations among Total HIV Self-Efficacy and Each of its Subscales

| Variable                                   | 1     | 2    | 3    | 4 |
|--|-------|------|------|---|
| 1. HIV Self-Efficacy:<br>Total Scale       |       |      |      |   |
| 2. HIV Self-Efficacy:<br>Drug-Use Items    | .48** |      |      |   |
| 3. HIV Self-Efficacy:<br>Condom Use Items  | .57** | .12  |      |   |
| 4. HIV Self-Efficacy:<br>Negotiation Items | .88** | .19* | .22* |   |
|  |       |      |      |   |

<sup>\*&</sup>lt;u>p</u> < .01. \*\*<u>p</u> < .001.

Table 4 Intercorrelations Among the Variables (Entire Sample)

| 1       | 2               | 3                                | 4                                      | 5   | 6                     |
|---------|-----------------|----------------------------------|--|---|-----------------------|
|         |                 |                                  |  |   |                       |
|         |                 |                                  |  |   |                       |
| .31***  |                 |                                  |  |   |                       |
| .04     | .13             |                                  |  |   |                       |
| 41***   | 12              | 03                               |  |   |                       |
| y .22** | .10             | .06                              | 31***                                  |   |                       |
| 59***   | 10              | .01                              | .16* -                                 | .07                                       |                       |
|         | .31*** .0441*** | .31***04 .1341***12 xy .22** .10 | .31***04 .1341***1203 .y .22** .10 .06 | .31***04 .1341***1203y .22** .10 .0631*** | .31***04 .1341***1203 |

Table 5 Intercorrelations Among the Variables (Females)

| Variable                               | 1                 | 2   | 3   | 4    | 5   | 6           |
|--|-------------------|-----|-----|------|-----|-------------|
| 1. SSBQ                                |                   |     |     |      |     |             |
| 2. HIV Self-Efficacy                   | .18*              |     |     |      |     |             |
| 3. Information                         | .01               | .12 |     |      |     |             |
| 4. SOI                                 | 40***             | .06 | 01  |      |     |             |
| 5. Social Desirability                 | 7 .17             | .05 | .13 | 26** |     |             |
| 6. Motivation                          | 60***             | 08  | 01  | .04  | .02 |             |
| * <u>p</u> < .05. ** <u>p</u> < .01. * | *** <u>p</u> < .( | 01. |     |      |     | <del></del> |

Table 6 Intercorrelations Among the Variables (Males)

| Variable                             | 1                 | 2   | 3   | 4   | 5  | 6 |
|--------------------------------------|-------------------|-----|-----|-----|----|---|
| 1. SSBQ                              |                   |     |     |     |    |   |
| 2. HIV Self-Efficacy                 | .42**             |     |     |     |    |   |
| 3. Information                       | .09               | .15 |     |     |    |   |
| 4. SOI                               | 26*               | 05  | 04  |     |    |   |
| 5. Social Desirability               | y .10             | .03 | 06  | 19  |    |   |
| 6. Motivation                        | 56***             | 08  | .04 | .23 | 19 |   |
| * <u>p</u> < .05. ** <u>p</u> < .01. | *** <u>p</u> < .0 | 001 |     |     |    |   |

| Variable |                     | <u>B</u> | SE B | β     |
|----------|---------------------|----------|------|-------|
| Step     | 1                   |          |      |       |
|          | Social Desirability | 1.89     | 1.48 | .09   |
| Step     | 2                   |          |      |       |
|          | Social Desirability | .70      | 1.43 | .04   |
|          | Gender              | 7.02     | 1.51 | .33** |
| Step     | 3                   |          |      |       |
|          | Social Desirability | .60      | 1.16 | .03   |
|          | Gender              | 2.38     | 1.31 | .11   |
|          | SOI                 | -6.51    | 1.21 | 33**  |
|          | Information         | .12      | 1.17 | .01   |
|          | Motivation          | -9.12    | 1.12 | 45**  |
|          | HIV Self-Efficacy   | 3.58     | 1.15 | .18*  |
|          |                     |          |      |       |

Note.  $\underline{R}^2 = .01$  for Step 1;  $\underline{\Delta}\underline{R}^2 = .10$  for Step 2;  $\underline{\Delta}\underline{R}^2 = .34$  for Step 3 ( $\underline{p}s < .001$ )

<sup>\*</sup>p < .01. \*\*p < .001.

Table 8 Summary of Hierarchical Regression analyses for Variables Predicting HIV Self-Efficacy ( $\underline{N}$  = 188)

| able                | <u>B</u>   | SE B   | β  |
|---------------------|--|--|--|
| 1                   |  |  |  |
| Social Desirability | 21   | .50  | 03   |
| 2                   |  |  |  |
| Social Desirability | 52   | .49  | 08   |
| Gender              | 1.84   | .52  | .26**  |
| 3                   |  |  |  |
| Social Desirability | 71   | .49  | 11   |
| Gender              | 1.57   | .54  | .22*   |
| SOI                 | 56   | .51  | 08   |
| Information         | 1.45   | .49  | .21*   |
| Motivation          | 59   | .47  | 09   |
|                     | Social Desirability  Social Desirability  Gender  Social Desirability  Gender  Social Desirability  Gender  Soli | Social Desirability21  Social Desirability52  Gender 1.84  Social Desirability71  Gender 1.57  SOI56  Information 1.45 | 1 Social Desirability21 .50  2 Social Desirability52 .49 Gender 1.84 .52  3 Social Desirability71 .49 Gender 1.57 .54 SOI56 .51 Information 1.45 .49 |

Note.  $\underline{R}^2 = .001$  for Step 1;  $\underline{\Delta}\underline{R}^2 = .064$  for Step 2;  $\underline{\Delta}\underline{R}^2 = .057$ for Step 3 (ps < .001)

<sup>\*</sup>p < .01. \*\*p < .001.

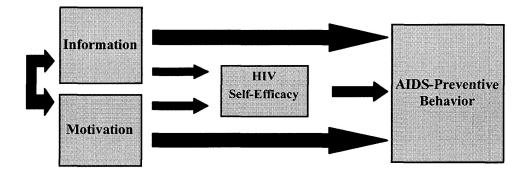
Table 9 t-test of Gender on SSBQ, HIV Self-Efficacy, and SOI

| Dependent Variable | <u>df</u> | <u>t</u> |
|--------------------|-----------|----------|
| SSBQ               | 191       | -4.69**  |
| HIV Self-Efficacy  | 191       | -3.06*   |
| SOI                | 70.03     | 6.10**   |

 $<sup>\</sup>frac{*\underline{p} < .01. **\underline{p} < .001.}{}$ 

## APPENDIX A

# IMB Model of AIDS-Preventive Behavior



#### APPENDIX B

### AIDS Risk Behavior Knowledge Test

This is a true/false test. Please do not skip any questions. Because this is a test, some of the statements are true and accurate, while others are false and inaccurate.

- True False 1. Most people who transmit the AIDS virus look unhealthy.
- True False 2. Anal intercourse is high risk for transmitting the AIDS virus.
- True False 3. Oral intercourse carries risk for AIDS virus transmission.
- True False 4. A person can be exposed to the AIDS virus in one sexual contact.
- True False 5. Keeping in good physical condition is the best way to prevent exposure to the AIDS virus.
- True False 6. It is unwise to touch a person with AIDS.
- True False 7. Condoms make intercourse completely safe.
- True False 8. Showering after sex greatly reduces the transmission of AIDS.
- True False 9. When people become sexually exclusive with one another, they no longer need to follow "safe sex" guidelines.
- True False 10. Oral sex is safe if the partners "don't swallow."
- True False 11. Most people who have been exposed to the AIDS virus quickly show symptoms of serious illness.

- True False 12. By reducing the number of different sexual partners, you are effectively protected from AIDS.
- True False 13. The AIDS virus does not penetrate unbroken skin.
- True False 14. Female-to-male transmission of the AIDS virus has not been documented.
- True False 15. Sharing toothbrushes and razors can transmit the AIDS virus.
- True False 16. Pre-ejaculatory fluids carry the AIDS virus.
- True False 17. Intravenous drug users are at risk for AIDS when they share needles.
- True False 18. A person must have many different sexual partners to be at risk from AIDS.
- True False 19. People carrying the AIDS virus generally feel quite ill.
- True False 20. Vaginal intercourse carries high risk for AIDS virus transmission.
- True False 21. Withdrawal immediately before orgasm makes intercourse safe.
- True False 22. Persons who are exclusively heterosexual are not at risk from AIDS.
- True False 23. Healthy persons in AIDS risk groups should not donate blood.
- True False 24. Sharing kitchen utensils or a bathroom with a person with AIDS poses no risk.
- True False 25. Intravenous drug users become exposed to the AIDS virus because the virus is often contained in heroin, amphetamines, and the injected drugs.

- True False 26. A wholesome diet and plenty of sleep will keep a person from becoming exposed to the AIDS virus.
- True False 27. A cure of AIDS is expected with the next two years.
- True False 28. It is more important to take precautions against AIDS in large cities than in small towns.
- True False 29. A negative result on the AIDS virus antibody test can occur even for people who carry the virus.
- True False 30. A positive result on the AIDS virus test can occur even for people who do not carry the virus.
- True False 31. Coughing does not spread AIDS.
- True False 32. Only receptive (passive) anal intercourse transmits AIDS.
- True False 33. Most present cases of AIDS are due to blood transfusions that took place before 1984.
- True False 34. Most persons exposed to the AIDS virus know they are exposed.
- True False 35. A great deal is now known about how the AIDS virus is transmitted.
- True False 36. Donating blood carries no AIDS risk for the donor.
- True False 37. No cases of AIDS have ever been linked to social (dry) kissing.
- True False 38. Mutual masturbation and body rubbing are low risk unless the partners have cuts or scratches.

True False 39. People who become exposed to the AIDS virus through needle-sharing can transmit the virus to others during sexual activities.

True False 40. The AIDS virus can be transmitted by mosquitoes or cockroaches.

## APPENDIX C

| 111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |
|--|
| Attitudes, Subjective Norms, and Behavioral Intentions for AIDS Prevention Scale   |
| Each question below is asked in the context of what you think or do in the next month. Although many of the situations discussed might be relevant for a much longer period of time, for research purposes, we need to have a standard time frame. |
| Answer each of the questions below by putting an X on the part of the line that best represents your feelings. Be sure to put your mark within one of the five intervals on each line.   |
| For example, if your answer to a question below was "very good," "somewhat nice" and "neither pleasant nor unpleasant" your response would look like this:   |
| My getting a car in the next month would be:   |
| very good  _X   very bad   |
| very awful    _X   very nice   |
| very pleasant   _X   very unpleasant   |
| The questions below deal with not having sexual intercourse at all. Note: When we say "sexual intercourse," we mean sex where the penis is put into the vagina or sex where the penis is put into the behind).                                     |
| 1. My not having sexual intercourse at all during the next month would be:   |
| very good      very bad  |
| very awful     very nice   |

very pleasant |\_\_\_|\_\_| very unpleasant

| 2.                            |   | are important tercourse at all   |  |                                     |
|-------------------------------|---|--|--|-------------------------------------|
|                               | very true   |  | _  | very untrue                         |
| 3.                            | I intend to not the next month                              | have sexual in   | tercourse  | at all during                       |
|                               | very likely   |  | _  | very unlikely                       |
| your<br>sexu<br>part:<br>sexu | feelings about al partner. If y ner, please answal partner. | Please notens in this sections in this section a specific behavour no not current those questions. | on ask yo<br>vior that<br>ntly have<br>ons as if | involves a<br>a sexual<br>you had a |
| The                           |   | deal with discu  |  |                                     |
| 4.                            | the virus that  | it safer sex (how<br>causes AIDS) with<br>sex with them du   | th my sex  | ual partner(s)                      |
|                               | very good   |  | _  | very bad                            |
|                               | very awful  |  | _  | very nice                           |
|                               | very pleasant   | <u> </u>   | _  | very unpleasant                     |
| 5.                            | about safer sex   | o are important of with my partners ago the next month   | r(s) befo  |                                     |
|                               | very true   |  | _  | very untrue                         |
| 6.                            |   | during the next next with my partne:   |  |                                     |
|                               | very likely   |  | _  | very unlikely                       |

|     | questions below deal with trying to persuade your ner(s) to practice only safer sex.   |
|-----|--|
| 7.  | Trying to persuade my partner(s) to practice only safer sex (for example, to use latex condoms) during the next month would be:    |
|     | very good     very bad   |
|     | very awful     very nice   |
|     | very pleasant     very unpleasant  |
| 8.  | Most people who are important to me think I should try to persuade my partner(s) to practice only safer sex during the next month. |
|     | very true     very untrue  |
| 9.  | If I have sex during the next month, I intend to try ro persuade my partner(s) to practice only safer sex.                         |
|     | very likely      very unlikely   |
| The | questions below deal with buying latex condoms.  |
| 10. | My buying latex condoms during the next month would be:  |
|     | very good   _ _  very bad  |
|     | very awful     very nice   |
|     | very pleasant     very unpleasant  |
| 11. | Most people who are important to me think I should buy latex condoms during the next month.  |
|     | very true     very untrue  |
| 12. | I intend to buy latex condoms during the next month.   |
|     | Very likely  |

|       | The questions below deal with always making sure you have latex condoms handy.   |  |  |  |  |
|-------|--|--|--|--|--|
| 13.   | Always having latex condoms handy during the next month would be:  |  |  |  |  |
|       | very good     very bad   |  |  |  |  |
|       | very awful     very nice   |  |  |  |  |
|       | very pleasant     very unpleasant  |  |  |  |  |
| 14.   | Most people who are important to me think I should always have latex condoms handy during the next month.                                  |  |  |  |  |
|       | very true     very untrue  |  |  |  |  |
| 15.   | I intent to always have latex condoms handy during the next month.   |  |  |  |  |
|       | very likely     very unlikely  |  |  |  |  |
| The o | questions below deal with always using latex condoms ng sexual intercourse.  |  |  |  |  |
| 16.   | In the next month, my partner(s) and I always using latex condoms during sexual intercourse would be                                       |  |  |  |  |
|       | very good     very bad   |  |  |  |  |
|       | very awful     very nice   |  |  |  |  |
|       | very pleasant     very unpleasant  |  |  |  |  |
| 17.   | Most people who are important to me think my partner(s) and I should always use latex condoms during sexual intercourse in the next month. |  |  |  |  |
|       | very true     very untrue  |  |  |  |  |

| 18.         |                                    | ual intercourse during to my partner(s) and I al                     |                   |
|-------------|------------------------------------|--|-------------------|
|             |                                    |  | very unlikely     |
| The<br>viru | questions below<br>s that causes A | w are about getting a bl   | lood test for the |
| 19.         | <del>-</del>                       | od test during the next<br>e the virus that causes                   |                   |
|             | very good                          |  | very bad          |
|             | very awful                         |  | very nice         |
|             | very pleasant                      |  | very unpleasant   |
| 20.         | a blood test                       | no are important to me to during the next month to that causes AIDS. |                   |
|             | very true                          |  | very untrue       |
| 21.         | <del>_</del>                       | et a blood test during t<br>I have the virus that o                  |                   |
|             | very likely                        |  | very unlikely     |
|             |                                    | deal with asking your virus that causes AIDS.                        |                   |
| 22.         |                                    | ner(s) to get a blood to check whether they have buld be:            | _                 |
|             | very good                          |  | very bad          |
|             | very awful                         |  | very nice         |
|             | very pleasant                      |  | very unpleasant   |

| 23. | Most people who are important to me think I should ask my partner(s) to get a blood test during the next month to check whether they have the virus that cause AIDS. |
|-----|--|
|     | very true     very untrue  |
| 24. | I intend to ask my partner(s) to get a blood test during the next month to check whether they have the virus that causes AIDS.                                       |
|     | verv likelv               verv unlikelv.   |

3

3

3

4

1

1

2

2

5

5

5

APPENDIX D
HIV Self-Efficacy Scale

Now I want to ask you about how sure you are that you could do certain things. As you read each question, circle the number that indicates how sure you are.

How sure are you that you could...

G. Prevent a partner from having anal 1

H. Ask a partner about his or her

I. Refuse to use a needle that had

already been used by a friend?

other sexual partners?

sex with you?

Not at Very All Sure Sure A. Talk about safe sex with a 1 3 4 Sexual partner? 5 B. Buy condoms in a drug store? 1 3 5 C. Refuse to have sex with someone you didn't know very well? 2 3 5 D. Use a condom correctly if your 1 partner wanted to? E. Refuse to shoot up drugs if your 1 2 3 friends asked you to shoot up with them? 2 3 4 5 F. Convince a sexual partner that he 1 or she should use a condom?

## APPENDIX E

## SAFE SEX BEHAVIOR QUESTIONNAIRE

Directions: Below is a list of sexual practices. Please read each statement and respond by indicating your degree of use of these practices.

| 1 = | Never 2 = Sometimes 3 = Most of   | the | Time | 4 = . | Always |
|-----|---|-----|------|-------|--------|
| 1.  | I insist on condom use when I have sexual intercourse.                                  | 1   | 2    | 3     | 4      |
| 2.  | I use cocaine or other drugs prior to or during sexual intercourse.                     | 1   | 2    | 3     | 4      |
| 3.  | I stop foreplay long enough to put on a condom (or for my partner to put on a condom)   | 1   | 2    | 3     | 4      |
| 4.  | I ask potential sexual partners about their sexual histories.                           | 1   | 2    | 3     | 4      |
| 5.  | I avoid direct contact with my partner's semen or vaginal Secretions.                   | 1   | 2    | 3     | 4      |
| 6.  | My partner and I use spermicide as well as a condom with each of sexual intercourse.    | 1   | 2    | 3     | 4      |
| 7.  | I have sexual intercourse with someone who injects drugs (IV drugs) into his/her veins. | 1   | 2    | 3     | 4      |
| 8.  | I ask my potential sexual partners about a history of bisexual/homosexual practices.    | 1   | 2    | 3     | 4      |
| 9.  | I engage in sexual intercourse on a first date.   | 1   | 2    | 3     | 4      |

| 1 = Never 2 = Sometimes 3 = Most of  | the T | ime | 4 = A | lways |
|--|-------|-----|-------|-------|
| 10. I abstain from sexual<br>intercourse when I do not<br>know my partner's sexual<br>history.                         | 1     | 2   | 3     | 4     |
| 11. I avoid sexual intercourse when<br>I have sores or irritation in my<br>genital area.                               | 1     | 2   | 3     | 4     |
| 12. If I know an encounter may lead<br>to sexual intercourse, I carry<br>a condom with me.                             | 1     | 2   | 3     | 4     |
| 13. I insist on examining my sexual<br>partner for sores, cuts, or<br>abrasions in the genital area.                   | 1     | 2   | 3     | 4     |
| 14. If I disagree with information<br>that my partner presents on<br>safer sex practices, I state my<br>point of view. | 1     | 2   | 3     | 4     |
| 15. I engage in oral sex without<br>using protective barriers such<br>as a condom or rubber dam.                       | 1     | 2   | 3     | 4     |
| 16. I use rubber gloves for sexual<br>foreplay when I have cuts or<br>abrasions on my hands.                           | 1     | 2   | 3     | 4     |
| 17. If swept away in the passion of the moment, I have sexual intercourse without using a condom.                      | 1     | 2   | 3     | 4     |
| 18. I engage in anal intercourse.  | 1     | 2   | 3     | 4     |
| 19. I ask my potential sexual<br>partners abut a history of IV<br>drug use.  | 1     | 2   | 3     | 4     |

| 1 = Never | 2 = Sometimes | 3 = Most of the | e Time $4 = Always$ |
|-----------|---------------|-----------------|---------------------|
|           |               |                 |                     |

| 20  | If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex.        | 1 | 2 | 3 | 4 |
|-----|---|---|---|---|---|
| 21  | If my partner insists on having sexual intercourse without a condom, I refuse to have sexual intercourse. | 1 | 2 | 3 | 4 |
| 22  | I avoid direct contact with my sexual partner's blood.  | 1 | 2 | 3 | 4 |
| 23  | It is difficult for me to discuss sexual issues with my sexual partners.                                  | 1 | 2 | 3 | 4 |
| 24  | I initiate the topic of safer sex with my potential sexual partner.                                       | 1 | 2 | 3 | 4 |
| 25  | I have sexual intercourse with someone who I know is a bisexual or gay person.                            | 1 | 2 | 3 | 4 |
| 26. | I engage in anal intercourse without using a condom   | 1 | 2 | 3 | 4 |
| 27. | I drink alcoholic beverages   | 1 | 2 | 3 | 4 |

prior to or during sexual

intercourse.

## APPENDIX F

## Sociosexual Orientation Inventory

Please answer all of the following questions honestly. For the questions dealing with behavior, write your answers in the blank spaces provided. For the questions dealing with thoughts and attitudes, circle the appropriate number on the scales provided.

|    | ghts and<br>es provi         |                  | ıdes,                                | circl  | le th                             | e app                             | ropri                     | ate n | umber  | on   | the |
|----|------------------------------|------------------|--------------------------------------|--------|-----------------------------------|-----------------------------------|---------------------------|-------|--------|------|-----|
| 1. | With ho                      | w many<br>interd |                                      |        | _                                 |                                   |                           | _     |        | x    | -   |
| 2. | How man<br>having<br>specifi |                  | ch du                                | ring t | the n                             | ext f                             | ive y                     |       |        |      |     |
| 3. | With ho                      |                  |                                      |        |                                   |                                   | have                      | you h | ad se  | k on | L   |
| 4. | How oft someone one).        | en do y          | 1. 1<br>2. 6<br>3. 6<br>4. 6<br>5. 6 |        | curr every every every a wee time | ent d  two mont two k s eac ry da | ating or th h weeks h wee | part  | ner?   |      | cle |
| 5. | Sex wit                      | hout lo          | ove i                                | s OK.  |                                   |                                   |                           |       |        |      |     |
|    | 1 2                          | 3                | 4                                    | 5      | 6                                 | 7                                 | 8                         | 9     |        |      |     |
|    | I stron                      | gly dis          | sagre                                | e I st | rong                              | ly ag                             | ree                       |       |        |      |     |
| 6. | I can i<br>"casual           |                  |                                      |        |                                   |                                   |                           | and   | enjoyi | ing  |     |
|    | 1 2                          | 3                | 4                                    | 5      | 6                                 | 7                                 | 8                         | 9     |        |      |     |
|    | I stron                      | gly dis          | sagre                                | e I st | rong                              | ly ag                             | ree                       |       |        |      |     |

7. I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable having sex with him or her.

1 2 3 4 5 6 7 8 9

I strongly disagree I strongly agree

#### APPENDIX G

Short Form C of The Marlowe-Crowne Social Desirability Scale

### Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item, decide whether the statement is true or false as it pertains to you personally, and circle the corresponding response.

- True False 1. It is sometimes hard for me to go on with my work if I am not encouraged.
- True False 2. I sometimes feel resentful when I don't get my way.
- True False 3. On a few occasions, I have given up doing something because I thought too little of my ability.
- True False 4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- True False 5. No matter who I'm talking to, I'm always a good listener.
- True False 6. There have been occasions when I took advantage of someone.
- True False 7. I'm always willing to admit when I make a mistake.
- True False 8. I sometimes try to get even, rather than forgive and forget.
- True False 9. I am always courteous, even to people who are disagreeable.
- True False 10. I have never been irked when people expressed ideas very different from my own.

- True False 11. There have been times when I was quite jealous of the good fortune of others.
- True False 12. I am sometimes irritated by people who ask favors of me.
- True False 13. I have never deliberately said something that hurt someone's feelings

#### APPENDIX H

#### COVER LETTER

### Dear Participant:

We are conducting a study on the effects of gender and sociosexuality on AIDS-preventive self-efficacy and behaviour. While much research has been conducted on AIDS-preventive self-efficacy and behaviour, the role of sexual attitudes has not been examined.

The intent of this research project is to examine the relationships among AIDS knowledge, AIDS-prevention motivation, AIDS-preventive self-efficacy, AIDS-preventive behaviour, gender, and sexual attitudes. In order to accomplish this goal, we would like you to complete a few questionnaires dealing with the previously-mentioned variables. It should take approximately 30 minutes of your time. Please respond to each item as honestly as possible. All answers will be accepted.

Please remember you are a volunteer and are free to withdraw from this study at any time without providing any explanation and without penalty. All information you provide will remain completely confidential. Please do not write your name on any of the questionnaires. The data will be entered into a computer using code numbers. The raw data will be stored at Lakehead University for 7 years in a locked filing cabinet in Dr. Charles Netley's office.

The results of the study will be available to you upon request after the study has been completed. Thank-you very much for your participation and cooperation.

Sincerely,

Melissa Keeping, M.A. Clinical Psychology candidate

#### APPENDIX I

#### CONSENT FORM

My Signature on this sheet indicates that I agree to participate in this study by Melissa Keeping, M.A. Clinical Psychology candidate, on sexual attitudes and AIDS prevention. My signature on this sheet also indicates that I understand the following:

- 1. I am a volunteer and can withdraw from this study at any time without providing any explanation and without penalty.
- 2. There are no known risks of physical or psychological harm associated with participation in this study.
- 3. Benefits of this study include an increased understanding of variables related to the adoption of AIDS-preventive behaviours.
- 4. The information I provide will be confidential.
- 5. Data obtained for the purposes of this study will be stored at Lakehead University for 7 years by Dr. Charles Netley, as per university procedures.
- 6. Following completion of this study, I will receive a summary of the research upon request. I may obtain this information from Melissa Keeping or Dr. Charles Netley through the Lakehead University Psychology Department.

| Ι  | have | recei  | ved | explanations  | about | the | nature | of | the | study |
|----|------|--------|-----|---------------|-------|-----|--------|----|-----|-------|
| it | s pu | rpose, | and | l procedures. |       |     |        |    |     |       |

| Signature | of | Participant | Date |
|-----------|----|-------------|------|

## APPENDIX J

## PLEASE DO NOT WRITE YOUR NAME ON THIS QUESTIONNAIRE.

## DEMOGRAPHIC INFORMATION

| 1. | What is your gender<br>(Check One)   |
|----|--|
|    | Male Female  |
| 2. | What is your marital status?   |
|    | SingleWidowedMarriedDivorcedCommon Law   |
| 3. | What is your age?  |
|    | years  |
| 4. | In which year of study are you currently enrolled?   |
|    | year   |
| 5. | In which degree program are you currently enrolled?  |
| 6. | What is your ethnic background? (Check One)  |
|    | <pre>White (non Latino/Latina) African American Latino/Latina Native American Asian or Pacific Islander Other (please specify)</pre> |

#### APPENDIX K

#### DEBRIEFING FORM

The purposes of this study are: (a) to look at gender differences in the information-motivation-behavioral skills (IBM) model of AIDS-preventive behaviour, and (b) to determine whether gender differences may be accounted for by differences in sociosexual orientation, or attitudes toward casual sex.

Perceived self-efficacy, or confidence in one's own ability, to engage in AIDS-preventive behaviours has been found to directly related to AIDS preventive behaviour. Because women are more vulnerable to HIV infection through heterosexual contact than are men, researchers have proposed that AIDS prevention efforts should aim to increase women's AIDS-preventive self-efficacy. Research has found, however, that women tend to have higher AIDS-preventive self-efficacy than men. Research has also found that women tend to have more restricted attitudes toward casual sex than do men.

The hypotheses of the present study are as follows:

- 1. Females will report greater self-efficacy, or confidence in their own abilities, to engage in AIDS preventive behaviours and, consequently, will engage in more AIDS preventive behaviours than males.
- 2. Individuals with a restricted approach toward casual sexual relations, regardless of gender, will have higher AIDS preventive self-efficacy and will engage in more AIDS preventive behaviours than those with an unrestricted approach.

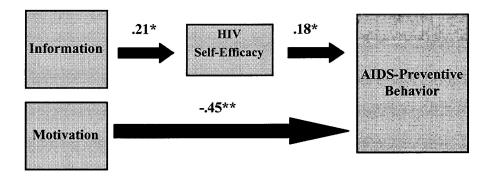
Thank-you for participating in this study. If you have any questions about the study, please contact Melissa Keeping, M.A. Clinical Psychology candidate at 343-8476 or Dr. Charles Netley at 343-8486. Both of us may also be reached at the following address:

Department of Psychology, Lakehead University, Thunder Bay, ON P7B 5E1

If your participation in this study has caused you any distress, or raised personal issues you would like to discuss, the following organizations are available at Lakehead University:

Health Centre 343-8361
Peer Support Line 343-8255
Chaplain 343-8018
Counselling and Career Centre 343-8018

APPENDIX L
Significant Results for the IMB Model of AIDS-Preventive Behavior



#### APPENDIX M

Significant Results for HIV Self-Efficacy, Gender and Sociosexual Orientation on AIDS-Preventive Behaviour



Sociosexual Orientation AIDS-Preventive Behaviour
-.33\*\*