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Condom Use Among Young Males

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Honours Psychology Thesis  
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### Abstract

Using the Information-Motivation-Behavioural Skills Model, the present study examined the relationship between condom use motivation and behavioural skills and their independent and joint influence on condom use consistency among adolescent heterosexual males. Participants were 98 currently sexually active, heterosexual males aged 18-23 ( $M = 18.5$ ). Each participant was given a series of questionnaires to measure 5 dimensions of Attitudes Towards Condoms, Perceptions of Social Norms, condom use consistency, 3 types of condom-obtaining negotiation strategies, and 4 types of condom-avoiding negotiation strategies. Results indicated that the Pleasure dimension of Attitudes towards condoms, was positively correlated with condom use and the condom obtaining strategy Risk Information/Request, and negatively correlated with the condom avoiding strategies Dislike of condoms and Seduction. Perceptions of Social Norms were also positively correlated with condom use and the condom-obtaining strategies Risk Information/Request and Direct Verbal/Nonverbal Communication, while negatively correlated with the condom avoiding strategies Dislike of Condoms and Seduction. Furthermore, these condom negotiation strategies partially mediated the respective relationships between motivational constructs and condom use consistency. Overall, these findings promote the need for intervention strategies that focus on dyadic negotiation and communication as a predictor for condom use, and implications for future research were discussed.

### **Acknowledgements**

Firstly, I would like to thank my parents for their enduring support in every facet of my academic endeavors, and their guidance through times of struggle and doubt. I would like to thank Katherine Descours for her inspiration to pursue this project and continuous reassurance. I would also like to thank Dr. William Fisher, without whom this project would not be possible, for taking me on as his Honours Thesis student. Finally, I would like to thank Taylor Kohut for his belief in the value of this project, his exceptional advice, his sage wisdom, and his unwavering confidence in my abilities.

### **Condom Use Among Young Males**

According to the most recent report from the Community Acquired Infections Division of the Public Health Agency of Canada, 15-24 year olds have the highest reported cases of chlamydia and gonorrhoea, and the number of incidences has been steadily rising within this age group since 1997 (Public Health, 2010). This is not surprising when considering that Statistics Canada's "Sexual Behaviour and Condom Use" study stated that 32% of sexually active 15-24 year olds reported to have not used a condom the last time they had sex. This statistic, however, has been decreasing somewhat steadily over the last ten years or so (Rotermann, 2010). Why then, have reported cases of STIs been increasing, if adolescents are seemingly engaging in more safe sex? It is important to note that this statistic was only a measure of condom use during last time of intercourse. Adolescents who reported condom-use at last intercourse may not be employing this method consistently during all encounters. It only takes one unprotected sexual encounter with a new partner to contract an STI, which stresses the importance of promoting consistent condom use within this age group.

Although many of the reported cases of STIs within this age group occur among females (Rotermann, 2010; ACHA, 2009), it is well established that males are more likely to take risks with regard to sexual behaviour. Compared to women, men report more unplanned and unprotected sex, less communication about condoms with their partners (Carter et al., 1999; De Bro et al., 1994; Noar et al., 2002), more sex while under the influence of alcohol or drugs (Corbin & Fromme, 2002), and significantly more cases of unprotected sex with a person they just met (Eagly & Crowley, 1986; Edgley, 2003).

Females have several options for birth control available to them (e.g. the birth control pill, Intrauterine Devices, and hormonal patches or injections), but condoms are really the only reliable option that is under male control (Bryan et al., 2001). Females may purchase condoms, apply them for her partner, or express her attitudes towards condoms, but it is ultimately the male who must consent to wearing one. In line with this view, a study by Krista Edgley on condom use among heterosexual couples found that, females reported initiating discussions about sexual health and STIs with their partners more often than males, and also reported feeling responsible for the decision to use condoms, but the couple's decision was more strongly influenced by the male's perception of whether condoms should be used (Edgley, 2003). In light of these findings, it seems relatively easy to blame males as culpable for lack of condom use, and to search for factors that explain their poor decision-making.

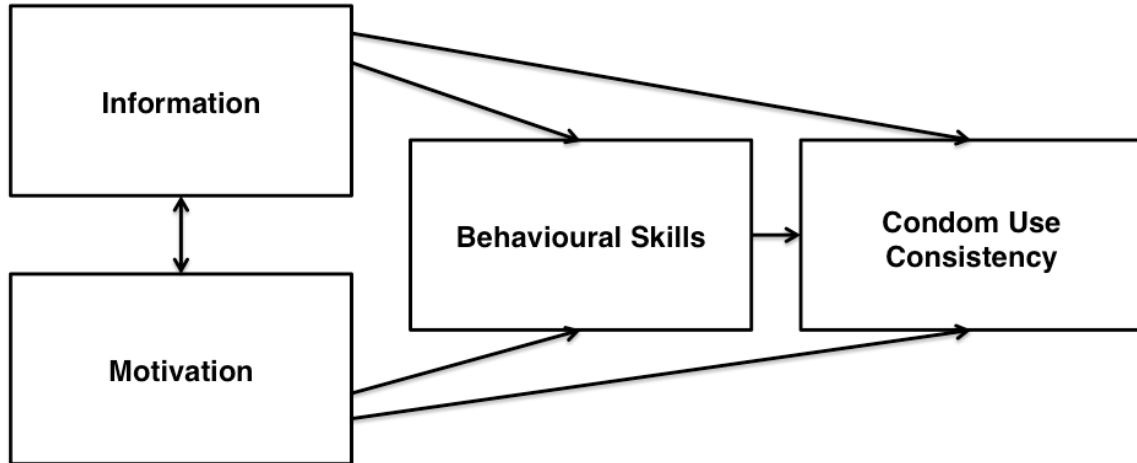
Unfortunately, it can be hard to find studies that do not focus on sexual abuse, coercion, criminal behaviour, or violence as reasons for the condom use inconsistency among heterosexual males. In some cases, researchers even suggest that males are unable to control their sexual urges long enough to put a condom on (Bryan et al., 2001)! Reinforcing negative stereotypes about male sexuality is rather dismissive of the autonomy of young men to act responsibly and maintain safe-sex practices. As a considerable gap exists in literature regarding condom use among average heterosexual men, the field would benefit from further research.

The Information-Motivation-Behavioural Skills (IMB) Model (Fisher & Fisher, 1992) is an appropriate theoretical framework with which to study condom use consistency in young males, and prevention strategies based on this model have been

shown to increase safe-sex behaviours among college students (Fisher et al., 1996). The IMB Model proposes three fundamental contributors to condom use behaviour: Information, Motivation, and Behavioural Skills. Each of these components has a separate direct effect on condom use. The developers of the IMB Model also proposed that information and motivation are mediated by and activators of behavioural skills, giving behavioural skills the most direct impact on condom use consistency (see Figure 1; Fisher & Fisher 1992).

While information is important, studies have found that information by itself cannot sustain lasting effects on behaviours such as condom use (Fisher & Fisher, 1992), therefore, for the purposes of this study, focus will be placed on Motivation and Behavioural skills and their separate and joint effects on condom use consistency.

Motivation can be defined as the desire to carry out or avoid a particular behaviour. As operationally defined by the IMB Model, it can be broken down into two constructs that include one's own attitudes towards condoms and one's perception of social norms. A positive attitude towards condoms (e.g. "I believe that condoms are a reliable method of birth control") implies more motivation to use condoms, whereas a negative attitude (e.g. "I believe condoms will effect my ability to maintain an erection") implies less motivation towards condoms. Perceptions of social norms operate in a similar fashion, however it involves one's perceptions of other's attitudes towards condoms, particularly people who are of importance in one's life. Positive perceptions (e.g. "I think my girlfriend wants me to use a condom") imply more motivation, and negative perceptions (e.g. "My priest does not approve of contraception") imply less motivation (Fisher & Fisher, 1992).



*Figure 1.* The Information-Motivation-Behavioural Skills Model (Fisher & Fisher, 1992).



Motivation has been shown to be a key factor in influencing health behaviours, including condom use (Fishbein & Ajzen, 1975; Brown, 1984). With males in particular, the specific negative beliefs regarding condoms, including the inconvenience of their use (Fisher, 1984; Stewart et al., 1991), difficulty in putting them on and keeping them on (Grady et al., 1993), concerns about insufficient lubrication (Grady, Klepinger, Billy, & Tanfer, 1993), and the belief that loss of erection will result from putting on a condom (Bryan et al., 2001) have all been shown to have a negative influence on condom use. Similarly, positive beliefs that condoms are an effective birth control method (Baffi, Schroeder, Redican, & McCluskey, 1989; Gillmore, Morrison, Lowery, & Baker, 1994; Tanfer, Grady, Klepinger, & Billy, 1993) have been shown to have a positive influence on condom use among males.

Unfortunately, there is less conceptual clarity or concurrence when it comes to the discussion of Behavioural Skills. Behavioural Skills have been conceptualized as those skills that are necessary to perform safe-sex behaviours (French & Holland, 2013) and most studies that have used the IMB Model have employed Condom Use Self Efficacy (CUSE) as the operational measure of participants' behavioural skills (e.g. Robertson et al., 2006). Self-efficacy is generally defined as a personal sense of control over performing certain behaviours and over one's environment (e.g. "I feel confident in my ability to put a condom on properly"; Bandura, 1990, 2004). Despite its frequent use in previous research, CUSE is a rather large divergence from the knowledge, or actual enactment of particular behavioural skills and, many studies have found that a high CUSE does not always translate into actual behaviour (Albarracin, 2001; Reinecke, Schmidt, & Ajzen, 1996). There is a huge difference between being confident in one's

ability to use a condom properly and actually using a condom properly. To add to the confusion, Eagly and Chaiken (1993) have previously found that people are likely to develop motivation if they perceive the behaviour as controllable and have a favourable attitude. However, when people have negative attitudes or perceive pressure from their partner not to use condoms, they argued that self-efficacy would be irrelevant to condom use. For example, one may feel confident about their ability to use a condom, but will still not use them due to their own or their partner's dislike of condoms. From this perspective, CUSE may be better positioned in a different construct than as a behavioural skill.

In line with this thinking, French and Holland (2013) have previously argued that CUSE alone may be inadequate as a measure of Behavioural Skills due to the fact that a sense of control over a behaviour is not the enactment of an actual skill. They proposed that Condom Negotiation (CN) strategies are a better measure. According to French and Holland, CN strategies are specific behaviours used to obtain condom use (e.g. directly asking one's partner if they have a condom before intercourse). Logically, negotiation strategies as a measure of Behavioural Skills for condom use seems appropriate especially since the act of using a condom is usually performed between more than one individual and, ideally, this action involves the consent everyone involved. Indeed, many studies have found communication about condoms to be one of the strongest predictors of actual condom use among heterosexual couples (Bird, Harvey, Beckman, & Johnson, 2001; Oncale & King, 2001; Sheeran et al., 1999; Wingood & DiClemente, 2000). Moreover, a study by Edgar et al (1992) found that, among participants who are reported using condoms during their last sexual encounter, negotiation strategies to initiate

condom use were met without resistance from partners 83% of the time (Edgar et al, 1992).

It seems rather predictable, then, that French and Holland's (2013) study, which involved both men and women, found a strong relationship between CN strategies and condom use consistency. What is more interesting in their findings is that CUSE and condom use consistency was actually partially mediated by CN strategies, where CUSE had direct effects on condom use as well as acted through CN strategies (French & Holland, 2013). This is very similar to the mediating relationship between motivation and behavioural skills proposed by the IMB Model. This suggests that perhaps, CUSE would be better placed as a motivational construct within the IMB Model, or even as a separate component. However, French and Holland made no attempt to explain how CUSE fit into the IMB Model though they use the IMB Model as the framework for their research (French & Holland, 2013).

French and Holland were also somewhat careless in using CUSE as the sole predictor for condom use strategies leaving other important motivational factors unexplored. As it was previously stated, certain beliefs held among males are known to influence condom use (Baffi, Schroeder, Redican, & McCluskey, 1989; Gillmore, Morrison, Lowery, & Baker, 1994; Tanfer, Grady, Klepinger, & Billy, 1993) and it is possible that these positive or negative attitudes towards condoms may also influence the type of negotiation strategy being used.

Though French and Holland's results clearly indicate that condom negotiation strategies are important predictors of condom use, and their arguments provide an important contribution to the theoretical refinement of the IMB Model, their exploration

of negotiation strategies paints only half the picture. In their study, French and Holland assumed that participants were either using strategies to obtain condom use or not using these strategies (French & Holland, 2013); they did not consider the possibility that some participants may actually be employing strategies to specifically avoid condom use, or that one participant, on different occasions, may be using both condom obtaining and condom avoidance strategies.

In this regard, a study by Tschann and his colleagues (2010) is particularly enlightening. In this study, motivations to use condoms, as well as both condom obtaining strategies and condom avoidance strategies were measured within a population of Latino males and females. Results showed that 95% of participants who were motivated to use condoms employed a strategy to obtain condom use, while 91% of those who were low in motivation employed a strategy to avoid condom use (Tschann et al., 2010). The focus was only on Latino youth, however, and no other research in this area has been done on other demographics. It was also unclear from their data whether or not the relationship between Motivation and condom use consistency was mediated by CN strategies, as IMB constructs were not employed. A possibility that is further unexplored in this area is whether positive or negative attitudes towards condoms might influence the specific type of negotiation strategy being used. Moreover, when a male is faced with resistance from his partner, certain CN strategies may be more effective than others.

The present study is a re-examination of the association between condom use motivation and behavioural skills and their separate and joint influence on condom use consistency among adolescent heterosexual males. Specifically, this study, through a correlational survey, will examine how attitudes towards condoms and perceptions of

social norms, as traditionally measured by the IMB model, are associated with both condom approach and condom avoidance strategies. In line with the work of Tschann and colleagues (2010) as well as the implications of the IMB Model (Fisher & Fisher, 1992), it is hypothesized that there will be a relationship between motivation, behavioural skills and condom use consistency.

Specifically, it is expected that: (1) condom obtaining strategies will be associated with higher condom use consistency and condom avoiding strategies will be associated with lower condom use consistency; (2) positive attitudes towards condoms will be associated with higher condom use consistency as well as the reported use of condom obtaining strategies and negative attitudes towards condoms will be associated with lower condom use consistency and the reported use condom avoiding strategies; (3) the relationship between attitudes towards condoms and condom use consistency will be partially mediated by the enactment of these CN strategies; (4) positive perceptions of social norms will be associated with higher condom use consistency as well as the reported use of condom obtaining strategies and negative perceptions of social norms will be associated with lower condom use consistency as well as the reported use of condom avoiding strategies; and (5) the relationship between perceptions of social norms and condom use consistency will be partially mediated by the enactment of these CN strategies. In other words, it is expected that motivations to use or avoid condoms will result in the use of different condom obtaining or avoiding strategies that will, in turn, explain condom use consistency.

Observations such as these are crucial to the development of sexual risk interventions that ameliorate effective condom obtaining strategies, while simultaneously

mitigating condom avoidance strategies that specifically put adolescents at a high sexual risk. Furthermore, the present study, by examining young heterosexual males and behaviours affecting their condom use consistency, will aid in further research which dismisses negative stereotypes about male sexuality.

## **Method**

### **Participants**

A total of 101 currently sexually active, heterosexual males between the ages of 18 and 23 ( $M = 18.5$ ) were recruited for this study. All participants were recruited from the University of Western Ontario by posting an online advertisement. In order to be eligible to take part in this study, participants were required to be heterosexual males who are currently sexually active and between the ages of 18 and 24. Heterosexual male was defined here as a male that primarily engages in sexual behaviour with females. Currently sexually active was defined here as having engaged in vaginal intercourse within the last six months. The relationship statuses of participants were “Not in a relationship” ( $n = 47$ ), “Dating a current partner exclusively (e.g. only dating one person)” ( $n = 46$ ), or “Dating a current partner and others” ( $n = 8$ ). All who participated received 0.5 course credits as compensation.

### **Procedure**

Interested participants met individually with a researcher in the Social Psychology Research Lab. The researcher gave them a Letter of Information to read, explained the nature of the study to them verbally, and answered any questions they had. They were then given screening questions by the experimenter to ensure that eligibility to participate in the study. Ineligible participants (those who were not male, heterosexual, or between

ages of 18-24) were thanked for their interest and dismissed from the study before they reviewed or signed the consent form.

Following informed consent, participants were instructed to complete a series of questionnaires in private on a computer terminal, which took roughly 30 minutes to complete. Surveys began with a demographic questionnaire to assess relevant participant characteristics (e.g. age, race, relationship status). Next, participants were asked to provide information about their sexual behaviour and condom use consistency. Participants then reported their attitudes towards condom use, and their perceptions of social norms. Finally, participants were asked about their use of condom-use approach or avoidance negotiation strategies.

Once participants completed the survey, they were given debriefing information and any questions they had for the experimenter were answered. The debriefing information explained the nature of the study, and provided references for further information about related research, and sexual health. Methods for contacting the experimenter and student health services were also provided and free condoms were distributed to interested participants.

## **Materials**

Participants were asked to complete separate correlational surveys on a private computer terminal. Surveys were created using Qualtrics software, and all participants were directed to the survey through a URL where their answers were anonymously recorded. The survey begins with three short demographic items assessing age, ethnicity, and relationship status.

These were followed by 1 item measuring frequency with which condoms are used during vaginal intercourse ("*How often do you and your partner use condoms when you engage in vaginal intercourse?*") on a Likert scale ranging from 1 (*never*) to 6 (*every time*).

The survey then evaluated attitudes towards condoms using 25 items from the UCLA Multidimensional Condom Attitudes Scale (MCAS; Helweg-Larson & Collins, 1994). Participants were asked to rate each item on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The MCAS, as its name denotes, includes five dimensions with which attitudes towards condoms are measured. This gives the MCAS an advantage over some other condom attitudes instruments which group all items into one "score" (e.g., Brown, 1984). The dimensions of the MCAS include: Reliability and Effectiveness (5 items;  $\alpha = .82$ ; e.g., "*Condoms are an effective method of birth control*"), Pleasure (5 items;  $\alpha = .77$ ; e.g., "*The use of condoms can make sex more stimulating*"), Identity Stigma (5 items;  $\alpha = .65$ ; e.g., "*Men who suggest using a condom are really boring*"), Embarrassment About Negotiation or Use (5 items;  $\alpha = .86$ ; e.g., "*It is easy to suggest to my partner that we use a condom*"), and Embarrassment About Purchase (5 items;  $\alpha = .90$ ; e.g., "*I don't think that buying condoms is awkward*"). Helweg-Larson and Collins tested the validity of this measure in three separate trials for male participants (Helweg-Larson & Collins, 1994). A meta-analysis (1999) of psychosocial factors of heterosexual condom use also found that the UCLA-MCAS was indeed a valid measure of attitudes (Sheeran, Abraham, & Orbell, 1999) and studies have measured condom use attitudes in college students using this scale (e.g. Wang, 2013).



To measure perceptions of social norms, surveys included 8 items from Grady et al.'s (1993) study on male's perceptions of condoms in the United States. Each item asked participants to rate the extent to which various social others think that they should or should not use condoms with a current or future sexual partner. For example, "*With respect to using a condom during sexual intercourse, my parents think that...*" rated on a Likert scale from 1 (*I should use condoms*) to 7 (*I should not use condoms*) with points 2-6 indicating intermediate judgments between these answers (Grady, Klepinger, Billy, & Tanfer, 1993). Studies that have tested measures of perceptions of social norms have found them to be predictors of condom use (Kasprzyk, Montañó, & Fishbein, 1998; Boer & Mashamba, 2001).

The survey also included 27 items from the Condom Negotiation (CN) Scale (Tschann, 2010) which evaluates the use of condom obtaining strategies and condom avoidance strategies. Participants were first presented with a root statement such as: "*If my partner suggested using a condom before vaginal intercourse I...*" and were then asked to indicate how often they have used particular behaviours such as "*Told my partner to use a condom because they could get pregnant*". All items were rated on Likert scales that ranged from 1 (*never*) to 4 (*more than a few times*). The CN Scale is organized into groups of items measuring different condom obtaining strategies: Risk Information/Request (7 items;  $\alpha = .85$ ; e.g., "*Told my partner they needed a condom to be safe*"), Direct Verbal/Nonverbal Communication (6 items;  $\alpha = .85$ ; e.g., "*Offered to put a condom on myself/my partner*"), Insist on Condom Use (2 items;  $\alpha = .71$ ; e.g. "*Insisted to my partner on using a condom*"). Strategies to avoid condom use were organized into four groups of items: Emotional Coercion (3 items;  $\alpha = .75$ ; e.g., "*Got upset with my*

*partner for suggesting condom use*"), Ignore Condom Use (2 items;  $\alpha = .50$ ; e.g., "*Just keep having sex*"), Dislike Condoms (5 items;  $\alpha = .61$ ; e.g., "*Told my partner that sex feels better without a condom*"), and Seduction (2 items;  $\alpha = .67$ ; e.g., "*Tried to get my partner too turned on to think about using a condom*"; Tscann, 2010). The CN Scale is an appropriate instrument for this study as it is one of the only published measures that include items for condom avoiding strategies. Furthermore, the CN Scale takes into account qualitatively different types of approach and avoidance strategies. Some participants may rely on a single type of CN strategy while others may use different types of condom obtaining and avoiding strategies from different categories.

### **Data Analysis**

It was expected that the relationship between motivation and condom use consistency would be mediated by Behavioural Skills, where mediation is defined as one variable affecting another variable through one or more intervening variables. Rather than view CN strategies as a single mediator, however, it was speculated that specific types of CN strategies would have separate effects on condom use. That is, that each of the seven CN strategy types, as defined by the Tschann's CN Scale (Tscann, 2010), would be an individual mediator.

Motivation was also broken down into two exclusive constructs (Attitudes Towards Condoms and Perceptions of Social Norms). Attitudes Towards Condoms were further defined into five dimensions by the MCAS (Helweg-Larson & Collins, 1994). It was therefore necessary to examine the effects of each of these constructs and dimensions separately. Parameter biases can occur when conducting separate simple mediation analyses for multiple mediators due to omitted variables (Preacher & Hayes, 2008), and

conducting a multiple mediator analysis for each motivational dimension reduces the likelihood of this bias.

Data was, therefore, analyzed using Preacher and Hayes's (2008) SPSS macro, INDIRECT, which tests mediation models that include multiple mediators.

As the parameters estimated in this procedure are unlikely to be distributed normally, this method uses bootstrapping, a nonparametric resampling procedure, which does not assume normality of the sampling distribution. For each mediator, a sample was drawn with replacement from the observed sample in the present study and the mediating effect was computed. This procedure was repeated 1000 times and the resulting 1000 estimates for each mediating effect were averaged to yield an overall point estimate, and percentile 95% confidence intervals for the indirect effect were constructed. This analysis allows examination of the total indirect effect of Motivation on condom use consistency through CN strategies, as well as the indirect effects through specific types of CN strategies, in the presence of the other CN strategies.

## Results

101 currently sexually active, heterosexual males were recruited for this study with 3 participants eliminated due to insufficient data. Therefore, results from surveys completed by 98 currently sexually active heterosexual males between the ages of 18-23 ( $M = 18.5$ ) were examined. 74% of participants were Caucasian ( $n = 73$ ), 16% Asian ( $n = 17$ ), and 8% Other ( $n = 8$ ; including those of Black, Middle Eastern and Hispanic decent). 39% of participants reported to always use condoms ( $n = 38$ ) and 28% reported to use condoms often ( $n = 27$ ). 12 % reported to sometimes use condoms ( $n = 13$ ), 10% reported to infrequently use condoms ( $n = 10$ ) and 10% reported to never use condoms ( $n = 10$ ).

### **Condom Negotiation (CN) Strategies**

To test whether CN strategies predicted condom use consistency (hypothesis 1), the correlation between each of the seven CN strategies and condom use consistency was examined (Table 1) and findings were relatively consistent with our predictions. Risk Information/ Request,  $r = .222, p < .05$ , and Direct Verbal/Nonverbal Communication,  $r = .285, p < .01$ , were positively and significantly correlated with condom use consistency. There was no significant correlation between Insist on Condom Use and condom use consistency.

Similarly, findings for condom avoiding strategies were partially consistent with our predictions (see Table 1). Dislike of Condoms,  $r = -.326, p < .01$ , and Seduction,  $r = -.270, p < .01$ , strategies were negatively and significantly correlated with condom use. Significant correlations were found neither between Ignore Condom Use and condom use consistency, nor between Emotional Coercion and condom use consistency.

To meet the requirements of a multiple mediator model (Baron & Kenny, 1986), only those CN strategies that significantly predicted condom use consistency were included in tests of possible mediation. Specifically, only the condom obtaining strategies: Risk Information/ Request and Direct Verbal/Nonverbal Communication, and the condom avoiding strategies: Dislike and Seduction were retained for further analyses below.

### **Attitudes Towards Condoms**

To test whether Attitudes towards condoms predicted condom use consistency (hypothesis 2), the correlation between each dimension of the MCAS and condom use consistency were also examined (Table 1). Of the five Attitude dimensions, only

Table 1

*Correlations between motivational constructs, CN strategies and condom use*

Constructs	<i>r</i>	<i>p</i>
Condom Obtaining Strategies		
Risk Information/Request*	.222	<.05
Direct Verbal/Nonverbal Communication*	.285	<.01
Insist on Condom Use	.025	n.s.
Condom Avoiding Strategies		
Emotional Coercion	.019	n.s.
Ignore Condom Use	.028	n.s.
Dislike Condom Use*	-.326	<.001
Seduction*	-.270	<.01
Attitudes Towards Condoms		
Reliability and Effectiveness	.121	n.s.
Pleasure*	.432	<.001
Identity Stigma	-.076	n.s.
Embarrassment about Negotiation and Use	-.053	n.s.
Embarrassment about Purchase*	.392	<.001
Perceptions of Social Norms*	.609	<.001

\*possible to use in tests of mediation

Pleasure was positively,  $r = .432, p < .001$ , correlated with condom use consistency. This was consistent with the prediction that more positive attitudes are associated with higher condom use consistency. Further, and contrary to the initial hypothesis, Embarrassment about Purchase, was also positively correlated with condom use consistency,  $r = .392, p < .001$ , such that a more negative attitude was associated with higher condom use consistency. No other significant correlations were found.

As only those variables that significantly predict condom use consistency should be included in tests of multiple mediation, the Pleasure and Embarrassment about Purchase dimensions of attitudes toward condoms were next correlated with CN strategies that predicted condom use consistency to test whether this attitude predicted the use of condom obtaining and avoiding strategies (hypothesis 2; see Table 2). A positive, significant correlation was found between the Pleasure dimension of the attitudes towards condoms and the Risk Information/Request CN strategy,  $r = .287, p < .01$ . However, no correlation was found between the Pleasure dimension and the Direct Verbal/Nonverbal Communication strategy. Further, significant negative correlations were found between the Pleasure dimension and both the Dislike,  $r = -.452, p < .001$ , and Seduction,  $r = -.296, p < .01$ , CN strategies. These findings suggested that the CN strategies Risk Information/Request, Dislike, and Seduction could act as possible mediators of the relationship between Pleasure and condom use consistency, and were therefore used in a multiple mediator analysis.

As no significant correlations were found between Embarrassment about Purchase and any of the four CN strategies, there was no reason to suggest that these strategies could be possible mediators of the relationship between Embarrassment about Purchase

Table 2  
*Correlations between CN strategies and attitudes towards condoms*

	Pleasure*		Embarrassment about Purchase	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
<b>Condom Obtaining Strategies</b>				
Risk Information Request*	.287	<.01	.998	n.s.
Direct Verbal/Nonverbal Communication	.148	n.s.	.514	n.s.
<b>Condom Avoiding Strategies</b>				
Dislike Condom Use*	-.542	<.001	.632	n.s.
Seduction*	-.296	<.01	.238	n.s.

\*used in tests of mediation

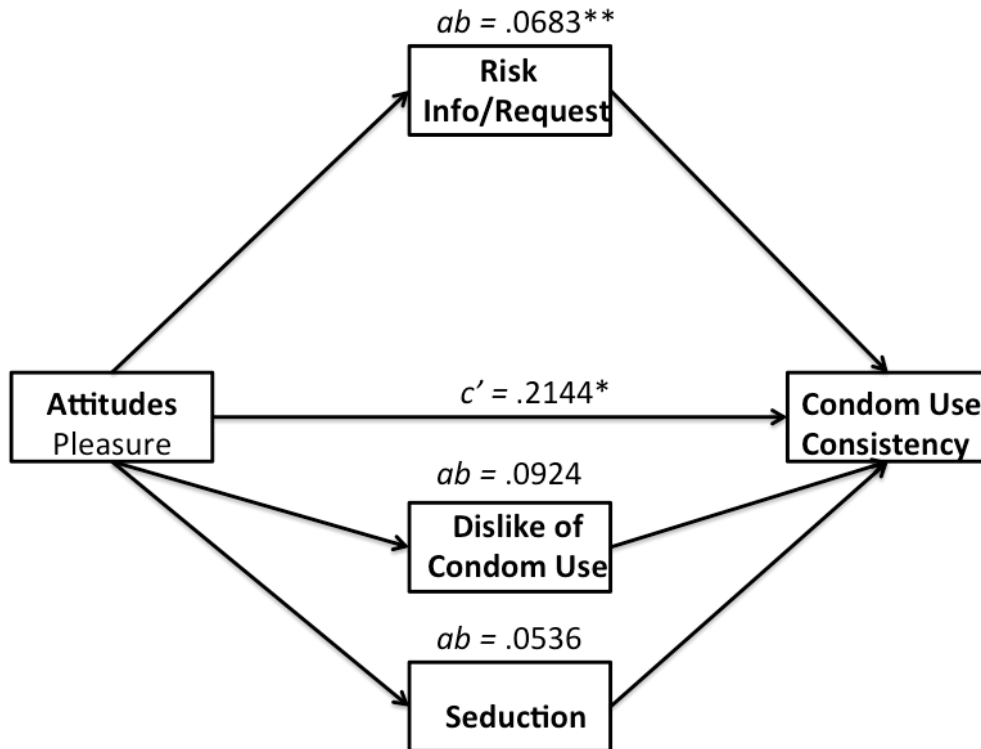
and condom use consistency, and therefore no multiple mediator analysis was performed on these variables.

**Testing the mediators.** To test whether CN strategies mediated the relationship between Pleasure and condom use consistency (hypothesis 3) Preacher and Hayes's (2008) SPSS macro, INDIRECT, was used to test whether Risk Information/Request, Dislike, and Seduction CN strategies mediated the relationship between the Pleasure dimension of attitudes towards condoms and condom use. This analysis revealed a significant total indirect effect of the pleasure dimension of attitudes on condom use through these three CN strategies,  $B = .2144$ , 95%  $CI = 0.0794-0.3856$ , indicating that, as a set of three mediating variables, the CN strategies Risk Information/Request, Dislike, and Seduction mediated the relationship between Pleasure and condom use consistency. There was also a significant specific indirect effect of Pleasure on condom use consistency through Risk Information/Request ( $ab = .0683$ , 95%  $CI = 0.0056, 0.1601$ ; see Figure 2). No other significant specific indirect effects were found. Further, a significant direct effect of Pleasure on condom use consistency was found ( $c' = .3148$ ,  $p < .05$ ), after controlling for these three mediators, indicating that the relationship was not fully mediated by these CN strategies.

### **Perceptions of Social Norms**

To test whether Perceptions of Social Norms predicted condom use consistency (hypothesis 4), the correlation between these two variables was determined (Table 1). As





*Figure 2.* Multiple mediator analysis of the relationship between pleasure and condom use consistency through the CN strategies risk information/request, dislike, and seduction.

predicted, Perceptions of Social norms had a positive, significant correlation with condom use consistency,  $r = .609, p < .001$ .

To test whether Perceptions of Social Norms predicted CN strategies (hypothesis 4), the respective correlations between Perceptions of Social Norms and the four CN strategies that predicted condom use consistency were determined (Table 3). Significant positive correlations were found between Perceptions of Social Norms and both Risk Information/Request,  $r = .212, p < .05$ , and Direct Verbal/Nonverbal Communication,  $r = .250, p < .05$ , CN strategies. Similarly, significant negative correlations were also found between Perceptions of Social Norms and both the Dislike,  $r = -.333, p < .001$ , and Seduction,  $r = -.185, p < .05$ , CN strategies. These findings suggested that the CN strategies Risk Information/Request, Dislike, and Seduction could act as possible mediators of the relationship between Perceptions of Social Norms and condom use consistency, and were therefore, all four CN strategies were used in a multiple mediator analysis that follows.

**Testing the mediators.** Once again, Preacher and Hayes's (2008) SPSS macro, INDIRECT, was used to test whether the three CN strategies Risk Information/Request, Dislike, and Seduction mediated the relationship between perceptions of social norms and condom use (hypothesis 5). This analysis indicated a significant total indirect effect through these CN strategies,  $B = .2574, 95\% CI = 0.0892-0.4546$ , suggesting that, as a set of four mediating variables, the CN strategies Risk Information/Request, Direct Verbal/Nonverbal Communication, Dislike, and Seduction partially mediated the relationship between Perceptions of Social Norms and condom use consistency. As can

Table 3  
*Correlations between CN strategies and perceptions of social norms.*

	<i>r</i>	<i>p</i>
Condom Obtaining Strategies		
Risk Information/Request*	.212	<.05
Direct Verbal/Nonverbal Communication*	.250	<.05
Condom Avoiding Strategies		
Dislike of Condoms*	-.333	<.001
Seduction*	-.296	<.05

\*used in tests of mediation

be seen in Figure 3, no single CN strategy had a significant specific indirect effect on the association between social norms and condom use consistency. Finally, there was a significant direct effect of Perceptions of Social Norms on condom use consistency,  $c' = .7762, p < .001$ , after controlling for the mediating variables, which indicates that the relationship was partially mediated by these CN strategies.

### **Discussion**

The present study investigated the relationship between Attitudes towards condoms, Perceptions of Social Norms and seven CN strategies and their separate and joint influence on condom use consistency in adolescent heterosexual males.

#### **Condom Negotiation (CN) Strategies**

It was hypothesized that those who reported using CN strategies to obtain condom use would have higher condom use consistency. Findings were relatively consistent with this prediction. The reported use of two out of the three condom obtaining strategies predicted higher condom use consistency: Risk Information/Request and Direct Verbal/Nonverbal Communication.

As suggested by previous research, communication about condoms is one of the strongest predictors of actual condom use among heterosexual couples (Bird, Harvey, Beckman, & Johnson, 2001; Oncale & King, 2001; Sheeran et al., 1999; Wingood & DiClemente, 2000). As predicted, adolescent heterosexual males who used strategies such as verbally suggesting the importance of using a condom to protect against STIs or directly communicating their desire to use a condom reported higher condom use consistency than those who did not employ these strategies as often. This is

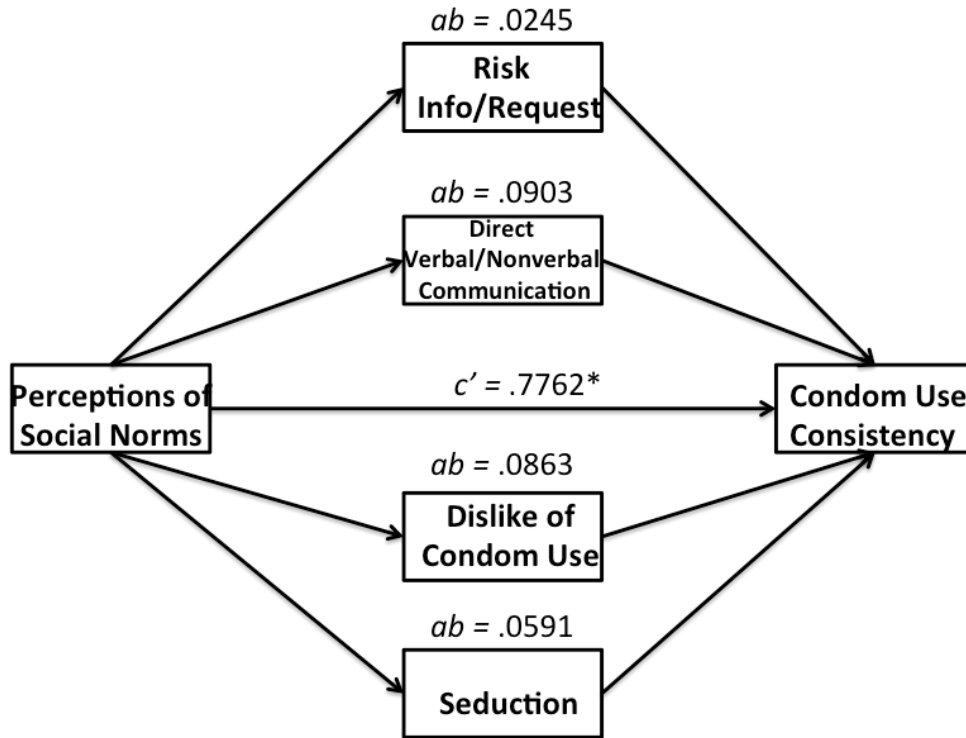


Figure 3. Multiple mediator analysis of the relationship between perceptions of social norms and condom use consistency through the CN strategies risk information/request, direct verbal/nonverbal communication, dislike, and seduction.

also consistent with French and Holland's (2010) and Tschann's (2013) findings showing that strategies to obtain condom use were associated with high condom use consistency.

What is surprising, however, is that the only negotiation strategy to obtain condom use that did not predict condom use consistency was Insist on Condom Use. One possible explanation for this is, as the association for direct communication was high, perhaps negotiation begins with this kind of strategy and, if successful, more insistent means to obtain condom use are not needed.

It was also predicted that those who reported using strategies to avoid condom usage would have lower condom use consistency. Findings were relatively consistent with this prediction as the reported use of two out of the four condom avoiding strategies predicted lower condom use consistency: Dislike of Condom Use and Seduction. This finding is congruent with Tschann's (2013) observation that the use of strategies to avoid condom use is associated with low condom use consistency.

Though the participants' anonymity was explicitly emphasized upon administering the study to control for social desirability, the lack of a significant association between condom use consistency and the two remaining condom avoiding strategies, Ignore Condom Use and Emotional Coercion, could have resulted from a social desirability bias. Questionnaire items for these strategies may not have been phrased as positively as the other condom avoiding strategy items. Phrasing questionnaire items about sexually risky behaviours in a more positive manner has been shown to counteract social desirability bias effects and increase self-reported use of these kinds of behaviours (DiFrancesco et al., 1998). As items like, "when my partner asked to use a condom before vaginal intercourse I got upset with her" (Emotional Coercion) are

arguably less positive than items like, “when my partner asked to use a condom before vaginal intercourse I said it feels better without a condom” (Dislike) it is possible that this effect occurred in the sample.

### **Attitudes Towards Condoms**

Positive attitudes towards condoms were expected to be associated with higher condom use consistency. Only one of the five attitudes dimensions (Pleasure) was consistent with this hypothesis, such that a more positive attitude about the pleasure of using a condom was associated with higher condom use consistency. Further, and contrary to the initial hypothesis, Embarrassment about Purchase was associated with condom use consistency such that more embarrassment (a negative attitude) was associated with higher condom use consistency.

According to Fishbein and Ajzen (1977), people’s attitudes can be related to their behaviour when the nature of the attitudinal predictors and behavioural criteria are taken into consideration. When one behaviour toward a given target is observed, the most appropriate predictor is the attitude toward the action rather than the attitude toward the target (Fishbein & Ajzen, 1977). In this case, the behaviour is condom use during vaginal intercourse. The attitudinal dimension of Pleasure, relates specifically to when a condom is being used during vaginal intercourse. Thus, it is an appropriate predictor of the act using a condom. The other four dimensions are, perhaps, inappropriate in this regard. For instance, Reliability and Effectiveness seems to be related more to condoms themselves, rather than the actual act of using a condom. This suggests that future research on condom use should work to refine old measures or create new measures of attitudes to match behaviour in specificity, as doing so was beyond the scope of this study.

It was expected that positive attitudes towards condoms would be associated with condom obtaining strategies and negative attitudes would be associated with condom avoiding strategies. The Pleasure dimension of attitudes was, in fact associated with Risk Information/Request such that a more positive attitude predicted higher use of this strategy. Pleasure was also associated with the condom avoiding strategies Dislike of Condom Use and Seduction such that a more negative attitude predicted greater use of these strategies.

With males in particular, previous studies have shown that attitudes regarding the pleasure of condom use (e.g. that condoms have insufficient lubrication) generally have a more negative impact on condom use (Grady, Klepinger, Billy, & Tanfer, 1993; Bryan et al., 2001). It seems appropriate, then, that negative attitudes toward pleasure would result in greater use of strategies such as telling one's partner that condoms are irritating, or using sweet talk to avoid condom use, while positive attitudes about the pleasure of condom use would mitigate use of such strategies.

It was predicted that the relationship between attitudes towards condoms and condom use consistency would be mediated by the use of CN strategies. Our findings did in fact find that the CN strategies Risk Information Request, Dislike of Condom Use, and Seduction, as a set, were partial mediators of the relationship between Pleasure and condom use consistency. Attitudes towards the pleasure of condom use not only had a direct effect on actual condom use, but also an indirect on condom use through these 3 CN strategies. This suggests that believing condoms are irritating (a negative attitude towards the pleasure of condom use) is associated with greater use of condom avoiding



strategies, and lower use of condom obtaining strategies, which in turn, deters the use of condoms.

### **Perceptions of Social Norms**

Positive perceptions of social norms were expected to be associated with higher condom use consistency, while negative perceptions of social norms were expected to be associated with lower condom use consistency and results showed that this was indeed the case. This was also consistent with the findings of Tschann's research (2013).

It was expected that positive perceptions of social norms would be associated with condom obtaining strategies and negative perceptions of social norms would be associated with condom avoiding strategies. Consistent with this hypothesis, perceptions of social norms were associated with the 4 CN strategies that predicted condom use in this way, such that perceiving others to believe that one should use condoms was related with using more condom obtaining strategies (Risk Information/Request, Direct Verbal/Nonverbal Communication) and using less condom avoiding strategies (Dislike of Condom Use and Seduction).

It was predicted that the relationship between perceptions of social norms and condom use consistency would be partially mediated by the use of CN strategies, and our findings were supportive of this hypothesis. The CN strategies Risk Information Request, Direct Verbal/Nonverbal Communication, Dislike of Condom Use, and Seduction, as a set of 4 mediating variables, were partial mediators of the relationship between Pleasure and condom use consistency. This suggests that having the belief that one's partner is favourable towards condom use is associated with lower use of strategies to convince

your partner not to use condoms, and greater use of strategies such as directly asking your partner to use a condom, and these behaviours increase condom use.

### **Limitations**

Aside from the possible issues of social desirability and appropriate measures mentioned earlier, this study has several limitations. As with any correlational research, causal relations cannot be inferred. It may be the case that those with negative attitudes about Pleasure may be using condom obtaining strategies *less* rather than those with positive attitudes using condom obtaining strategies *more*. Future research should attempt to define this relationship more clearly through experimental means.

Another limitation was the method of assessing condom use consistency. Self-report measures increase the likelihood of recall errors and biases (Graham, Catania, Brand, Duong, & Canchola, 2003). Participants were required to have engaged in vaginal intercourse at least once within 6 months of taking the study, and longer lengths of time since last intercourse may have affected participants' accuracy.

Only heterosexual males were included in the research. Though understanding the condom negotiation strategies used by homosexual males is of equal importance, the dynamic found within a heterosexual encounter and a homosexual encounter would be quite different and, unfortunately, the present study lacked the resources to examine both types and do them justice.

The present study did not include eligibility criteria based on relationship status (the number of participants who were not currently in a relationship and participants who were in an exclusive relationship were roughly equal). Though condom motivations and behaviours may differ with main and casual partners, including relationship status as a

means for exclusion from the present study would narrow the already limited population size that was available. It may be beneficial for future research to further examine how different types of relationships may influence the association between motivation, condom negotiation strategies, and condom use consistency.

These results also cannot be generalized to all males since only heterosexual males from one university were examined, and further studies examining a variety of demographics would improve the field greatly.

### **Implications and Future Research**

The results of the present study are very promising, as they were able to connect the Motivation component of the IMB Model (namely the Pleasure dimension of Attitudes and Perceptions of Social Norms) to a conceptualization of Behavioural Skills that was not CUSE (namely, the four CN Strategies Risk Information/Request, Direct Verbal/Nonverbal Communication, Dislike of Condom Use, and Seduction). It is also an important finding that both condom obtaining and condom avoiding strategies have an influence on condom use consistency. Furthermore, as the same condom obtaining and condom avoiding strategies partially mediated the relationship between the Pleasure dimension of Attitudes and condom use consistency, and the relationship between Perceptions of Social Norms and condom use consistency, one can infer that these motivational constructs are working through these CN strategies in the same way.

Measures of the constructs of the IMB Model may require refinement. Only one of the attitudes dimensions, and four of the CN strategies examined in this study fit into the IMB model, suggesting a different measure of attitudes would be more suitable in future research. Furthermore, Only 7 CN strategies were measured in this study, though

there may be a number of other strategies that were not examined. Studying communication between partners may uncover new strategies and qualitative research may prove useful in this regard. The dynamics involved in intimate relationships are difficult to capture using quantitative methods, and qualitative information could provide a better understanding of contexts in which condom obtaining strategies are effective and what kinds of behaviours can counter sexual partners' strategies to avoid condom use.

In the meantime, inconsistent condom use remains an issue that needs to be addressed by sexual risk intervention and prevention strategies. In this study alone only 39% of males reported to always use condoms. Interventions can focus their efforts on teaching and promoting more condom obtaining strategies that directly communicate the desire to use condoms and that inform one's partner of potential risks of not using condoms. As changing negative attitudes (especially about the pleasure of condom use) may be difficult for preventions to achieve, promoting the belief that others favour condom use may be a more effective approach. Therefore, it would be extremely beneficial for interventions to teach women effective ways of communicating the desire to use condoms as well as ways to counter condom avoiding strategies. Role-play involving men and women simulating negotiation with an unwilling partner may be an effective exercise to incorporate into these interventions.

Overall, the results of this study stress the importance of promoting consistent condom use in young heterosexual males through interventions that mitigate behaviours that specifically put them, and others, at a high sexual risk. Understanding the complexities of negotiating condom use in intimate relations is the next step, and the researchers in this study encourage others to continue exploring this issue.

### References

- Ajzen, I. & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888-918.
- Albarracin, D., Fishbein, M., Johnson, B., & Muellerleile, P. (2001). Theories of reasoned action and planned behaviour as models of condom use: a meta-analysis. *Psychological Bulletin*, *127*(1), 142-161. doi: 10.1037/0033-2909.127.1.142
- Baffi, C., Shroeder, K., Redican, K., & McClusky, L. (1989). Factors influencing selected heterosexual male college student's condom use. *Journal of the American College of Health*, *38*, 137-141.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation and Program Planning*, *13*, 9-17. doi: 10.1016/0149-7189(90)90004-G
- Bandura, A. (2004). Health promotion by social cognitive means. *Health Education and Behavior*, *13*, 143-164. doi: 10.1177/1090198104263660
- Bird, S., Harvey, S., Beckman, L., & Johnson, C. (2001). Getting your partner to use condoms: Interviews with men and women at risk of HIV/STDs. *Journal of Sex Research*, *38*, 233-240. doi: 10.1080/00224490109552092
- Boer, H., & Mashamba, M. (2001). Psychosocial correlates of HIV protection motivation among black adolescents in Venda, South Africa. *AIDS Education and Prevention*, *17*, (6) 590-602.
- Brown, I. (1984). Development of a scale to measure attitude toward the condom as a method of birth-control. *Journal of Sex Research*, *20*, 255-263. doi: 10.1080/00224498409551224

- Bryan, A., Schndeldecker, M., & Aiken, L. (2001). Sexual self-control and male condom-use outcome beliefs: predicting heterosexual men's condom-use intentions and behavior. *Journal of Applied Psychology, 31*(9), 1911-1938.  
doi: 10.1111/j.1559-1816.2001.tb00210.x
- Carter, J., McNair, L., Corbin, W., & Williams, M. (1999). Gender differences related to heterosexual condom use: The influence of negotiation styles. *Journal of Sex and Marital Therapy, 25*, 217-225. doi: 10.1080/00926239908403996
- Corbin, W., & Fromme, K. (2002). Alcohol use and serial monogamy as risks for sexually transmitted diseases in young adults. *Health Psychology, 21*, 229-236.  
doi: 10.1037/0278-6133.21.3.229
- De Bro, S., Campbell, S., & Peplau, L. (1994). Influencing a partner to use a condom: A college student perspective. *Psychology of Women Quarterly, 18*, 165-184.  
doi: 10.1111/j.1471-6402.1994.tb00449.x
- DiFranceisco, W., McAuliffe, T. L., Sikkema, K. J., (1998). Influences of survey instrument format and social desirability on the reliability of self-reported high risk sexual behavior. *AIDS and Behavior, 2*, 329-337.
- Eagly, A., & Chaiken, (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace.
- Edgley, K. (2003). Condom use among heterosexual couples. *Dissertation Abstracts International: Section B: The Sciences & Engineering, 63*(9-B), 4136.
- Fishbein, M., & Ajzen, A. (1975). *Beliefs, attitudes, intentions, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fisher, W. (1984). Predicting contraceptive behavior among university men: The roles of

- emotions and behavioral intentions. *Journal of Applied Social Psychology*, *14*, 104-123. doi: 10.1111/j.1559-1816.1984.tb02224.x
- Fisher, J., & Fisher, W. (1992). Changing AIDS-risk behavior. *Psychological Bulletin*, *111*, 455-474. doi: 10.1037/0033-2909.111.3.455
- Fisher, J., Fisher, W., Misovich, S., Kimble, D., & Malloy, T. (1996). Changing AIDS risk-behavior: Effects of an intervention emphasizing AIDS risk reduction information, motivation, and behavioral skills in a college student population. *Health Psychology*, *25*, 114-123. doi: 10.1037/0278-6133.15.2.114
- French, S. & Holland, K. (2013). Condom negotiation strategies as a mediator of the relationship between self-efficacy and condom use. *Journal of Sex Research*, *50*(1), 48-59. doi: 10.1080/00224499.2011.626907
- Gillmore, M., Morrison, D., Lowery, C., & Baker, S. (1994). Beliefs about condoms and their association with intentions to use condoms among youths in detention. *Journal of Adolescent Health*, *15*, 228-236. doi: 10.1016/1054-139X(94)90508-8
- Grady, W., Klepinger, D., Billy, J., & Tanfer, D. (1993). Condom characteristics: The perceptions and preferences of men in the United States. *Family Planning Perspectives*, *25*, 647-73.
- Helweg-Larson, M., Collins, B. E. (1994). The UCLA multidimensional condom attitudes scale: documenting the complex determinants of condom use in college students. *Health Psychology*, *13*, 224-237.
- Kasprzyk, D., Montaño, D., & Fishbein, M. (1998). Application of an integrated behavioural model to predict condom use: A prospective study. *Journal of Applied Social Psychology*, *28* (17) 1557-1583.

- Noar, S., Morokoff, P., & Harlow, L. (2002). Condom negotiation in heterosexually active men and women: Development and validation of a Condom Influence Strategy Questionnaire. *Psychology and Health, 17*, 711-735. doi: 10.1080/0887044021000030580
- Oncale, R., & King, B. (2001). Comparison of men's and women's attempts to dissuade sexual partners from the couple using condoms. *Archives of Sexual Behavior, 30*, 379-391. doi: 10.1023/A:1010209331697
- Preacher, K. & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40* (3), 879-891. doi: 10.3758/BRM.40.3.879
- Public Health Agency of Canada. (2010). Reported cases and rates of gonorrhoea by age group and sex, 1980 to 2009. *Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada*. Retrieved from [http://www.phac-aspc.gc.ca/std-mts/sti-its\\_tab/gonorrhoea-eng.php](http://www.phac-aspc.gc.ca/std-mts/sti-its_tab/gonorrhoea-eng.php).
- Reinecke, J., Schmidt, P., & Ajzen, I. (1996). Application of the theory of reasoned action to adolescents' condom use: A panel study. *Journal of Applied Social Psychology, 26*, 749-772.
- Robertson, A., Stein, J., & Baird-Thomas, C. (2006). Gender differences in the prediction of condom use among incarcerated juvenile offenders: Testing the Information–Motivation–Behavior Skills (IMB) Model. *Journal of Adolescent Health, 38*, 18-25. doi: 10.1016/j.jadohealth.2004.08.013
- Rotermann, M. (2010). Sexual behaviour and condom use of 15- to 24-year-olds in 2003 and 2009/2010. Statistics Canada. Retrieved from:



- <http://www.statcan.gc.ca/pub/82-003-x/2012001/article/11632-eng.htm>.
- Sheeran, P., Abraham, C., & Orbell, S. (1999). Psychological correlates of heterosexual condom use: A meta-analysis. *Psychological Bulletin, 125*, (1) 90-132.
- Stewart, D., DeForge, B., Hartmann, P., Kaminski, M., & Pecukonis, E. (1991). Attitudes toward condom use and AIDS among patients from an urban family practice center. *Journal of the National Medical Association, 83*, 772-776.
- Tanfer, K., Grady, W., Klepinger, D., & Billy, J. (1993). Condom use among U.S. men in 1991. *Family Planning Perspectives, 25*, 61-66.
- Tschann, J.M. (2010). Condom negotiation strategies and actual condom use among Latino youth. *Journal of Adolescent Health, 47*, 254-262. doi: 10.1016/j.jadohealth.2010.01.018
- Wang, X. (2013). The role of attitude functions, efficacy, anticipated emotions, and relationship status on college students' condom use intentions. *Journal of Sex Research, 50*, (7) 704-714.
- Wingood, G., & DiClemente, R. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education & Behavior, 27*, 539-565. doi: 10.1177/109019810002700502