

Running Head: INTENTIONS AND ACTUAL CONDOM USE

Intentions and Actual Condom Use  
for Vaginal, Oral, and Anal Intercourse

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### Chapter 1 – Introduction

Sexually transmitted infections (STIs) are at pandemic proportions in young adults (Centers for Disease Control, 2001). Viral STIs are incurable and consequently lifelong infections, and the bacterial STIs are becoming increasingly resistant to antibiotics. Since a “cure” is not an option for many of these infections, the best way to induce change is through prevention. Important components of prevention include the use of condoms and education by practitioners concerning their use. When used properly, condoms are known to be highly effective in the prevention of HIV and other STIs (CDC, 2001). Due to the inherent value nurses place on education and prevention, they are a vital link in promoting the use of condoms and consequently helping to prevent the spread of infection. Understanding condom use and intentions to use them is important to nurses so that they can provide effective interventions of health promotion and STI prevention. Studies have investigated intentions to use condoms and actual use but most focused on vaginal intercourse (Agnew et al., 1998; Coleman, 2001; Jemmott & Jemmott, 1992; Kegeles et al., 1989; Rosengard et al.). Oral and anal intercourse also present the risk of transmission of sexually transmitted infections (STIs), however the intentions and actual use of condoms with these types of intercourse have not been studied except the inclusion of anal intercourse in a study of Latino college students by Jemmott et al. (2002). Although reasons for not intending to use condoms have been investigated, specific factors that interfere with intentions have not been solicited.

The purpose of this study is to better understand the relationship between intentions and condom use for vaginal, oral, and anal intercourse and to explore the reasons for not using condoms with different types of sexual intercourse.

*Research Questions*

Among college students:

1. How often do they intend to use condoms or barriers when engaging in different types of sexual intercourse?
2. How often do they actually use condoms or barriers when engaging in different types of sexual intercourse?
3. What is the relationship between intention and actual use?
4. What are the reasons for not using condoms or barriers with different types of sexual intercourse?

## Chapter 2 – Review of Literature

Some literature exists that identifies intentions and condom use. However, almost every study focuses on vaginal intercourse or does not specify, implying that “intercourse” is, as traditionally thought, only vaginal intercourse. This has been very minimally expanded to anal intercourse in one study (Jemmott et al., 2002). Gaps exist in the literature regarding anal and oral intercourse, which also carry risk of transmission of sexually transmitted infections (STIs). Additionally, reasons for not intending to use condoms have been solicited, but reasons for intending to use condoms but then not actually using them have not been identified in the literature. This section details the review of literature that identifies gaps as well as the significant pieces this study will add.

*Early study of beliefs and condom-use intentions*

In 1989, Kegeles, Adler, & Irwin conducted a study to determine the association between beliefs about condoms and the intention to use them. The sample was 506 adolescents coming to a health care center in San Francisco who completed questionnaires asking them to rate 21

different consequences of using condoms from *very unlikely to occur* to *very likely to occur*. Of the sexually active adolescents, 59% of the females and 63% of the males had used condoms (Kegeles et al., 1989). Females and males were analyzed separately, rather than controlling for the effects of gender.

Females who had never had intercourse were found to be more likely than sexually active females to intend to use condoms in the next year if they had intercourse. However, for the already sexually active females, prior use was predictive of future intention to use. Five beliefs were found to have a positive association with intention for females: condoms enable spontaneous sex, they are easy to use, they are clean, they are popular with peers, and they require their partner to have self-control. Interestingly, the belief that condoms prevent STIs and pregnancy did *not* have a positive effect on the intention to use condoms (Kegeles et al., 1989).

Unlike the findings with females, there was no significant difference in intentions to use condoms between sexually active and non-sexually active males. However, similarly to females, prior use was predictive of future intention to use condoms. Males identified four beliefs to have a positive association with intentions: condoms enable spontaneous sex, they make the male responsible for contraception, they are easy to use, and they are popular with peers. Similar to females and no less interesting is that the belief that condoms prevent STDs and pregnancy did *not* have a positive effect on the intention to use condoms (Kegeles et al., 1989).

The finding in both females and males that the knowledge of preventive qualities of condoms has no significant influence on the intention to use them is of note. Although Kegeles et al. (1989) do not break down “beliefs” as being related to either attitudes or knowledge, it can be concluded from the findings that attitudes play a more important role than knowledge (i.e., knowledge of the preventive value of condoms). These findings support subsequent work by

Jemmott & Jemmott (1992) as well as Craig, Wade, Allison, Irving, Williams, and Hlibka (2000) that attitudes about condoms have the strongest influence on intentions to use them.

*Factors that predict intentions to use condoms*

The study done by Craig et al. (2000) investigated factors that are predictive of intentions to use birth control pills, condoms, and a combination of both. For the purposes of this current study, only the intentions to use condoms will be considered. The number of high school students who completed the questionnaire and were valid for analysis was 705, making this a rather large study. Being sexually active was not an inclusion criterion, and only 31.4% of males and 24.1% of females reported having sexual intercourse at least once in the past. This raises the question of what these participants deemed as “sexually active”. Specifically, a breakdown of vaginal, oral, and anal intercourse would have been useful and was included in the current study. Although questions were asked concerning past use, the focus of the Craig et al. study (2000) was intentions. The Theory of Planned Behavior (TPB) was used as a model, and it was found to explain 23.5-45.8% of the variance in intentions (Craig et al., 2000).

The TPB is an extension of the Theory of Reasoned Action (TRA), which says that “a specific behavior is a function of an individual’s intention to perform that behavior” (Craig et al., 2000). The TPB has three components: attitude, subjective norm, and perceived behavioral control. Attitude refers to belief that a certain behavior leads to a certain outcome (e.g., using a condom will result in certain outcomes). Subjective norm refers to the belief that others value the outcomes of a certain behavior (e.g., how others view condom use and its outcomes). Perceived behavioral control refers to the ease or difficulty of performing a behavior (e.g., how easy or difficult it is to use a condom). Attitude toward condom use was found to be a positive predictor of intention for females. For males, all three factors of the TPB (i.e., attitude, subjective norm,

and perceived behavioral control) were significant positive predictors of intentions to use condoms. It is unknown why subjective norm and perceived behavioral control were predictors for males but not females.

Craig et al. (2000) suggest that attempts should be made to influence the actual attitudes of students, rather than just provide information. For both genders, it is indicated that a change in attitudes would mean a change in intentions. This study fails to make the next connection from intentions to actual use; however, the report indicates that this will be done in the future. The breakdown of different types of sexual activity for this study is unavailable but would be useful to include in their future study.

#### *Condom-use intention in a vulnerable population*

Jemmott & Jemmott (1992) studied the effect of a culturally-sensitive intervention on condom-use intentions among 109 sexually active black adolescent women. Questionnaires were given before and after the intervention. The subjects received the intervention in groups of 6-10 by a black woman who was specially trained, and it was broken down into three sessions. The first session contained factual information about AIDS (cause, transmission, prevention) and the risks. The second focused on partners' reactions to condoms and the effects of condoms on sexual pleasure. The third session helped in skill building and increasing self-efficacy (the belief that they can use condoms properly).

The intervention of Jemmott & Jemmott's study (1992) had an important effect. Self-efficacy, the belief that condoms do not interfere with sexual pleasure, the belief that partners would be supportive, and the belief that condoms prevent pregnancy, STIs, and AIDS were all significantly improved after the intervention. Also important is that women reported significantly

stronger intentions to use condoms overall after the intervention, which is essentially the goal of the intervention.

Correlations show somewhat of a different picture. Although many variables were increased, their effect on intentions to actually use condoms is vital. Increases in intention were correlated with increases in self-efficacy ( $r=.29$ ), increases in hedonistic outcome expectancies such as sexual pleasure ( $r=.23$ ), and expectancies of partner support ( $r=.26$ ) (Jemmott & Jemmott, 1992). However, neither specific prevention-related outcome expectancies (e.g., preventing pregnancy and STIs) nor increase in general AIDS knowledge were correlated with increased intention to use condoms ( $r=.01$  and  $.05$ , respectively). This suggests that basic knowledge is not predictive of intentions; as in the study of Craig et al. (2000), attitudes are found to strongly influence intentions.

This study gives support to the idea of culturally-specific interventions in sexual health information because the intervention was delivered by a person considered to be in the cultural “in” group. Also, Jemmott & Jemmott (1992) focus on a vulnerable population by using only inner-city black adolescent women, unlike studies such as that of Agnew & Loving (1998) which is comprised entirely of college students, 91% of which are white. The Jemmott & Jemmott study (1992) does not assess the effect of the intervention on *actual* condom use because it is not a longitudinal design. As in other studies, intentions to use condoms are not assessed separately for different types of sexual intercourse (i.e., vaginal, oral, and anal).

#### *Intentions and condom use in Latino college students*

Villarruel joined Jemmott & Jemmott (2002) for a study of Latino college students in inner city New Jersey. Importantly, this is the only study which considered anal intercourse in addition to vaginal; however, oral intercourse was still omitted. This study made use of the

theoretical framework of the Theory of Planned Behavior, the extension of the Theory of Reasoned Action, as did the Craig et al. study (2000). Jemmott et al. (2002) described the three main components as behavioral beliefs, normative beliefs, and control beliefs. The participants of this study were 199 Latino students. For behavioral beliefs, two variables were studied: condom use prevention beliefs (if condoms actually prevent pregnancy, STIs, and AIDS) and condom use hedonistic beliefs (how condoms affect sexual enjoyment). For normative beliefs, the approval of various referents (e.g., sexual partners, peers, parents) was investigated. Concerning control beliefs, the study assessed negotiation beliefs. Other factors including technical skill beliefs (ability to physically implement condom use), impulse control (being able to stop or postpone sex until a condom is on), and condom availability were included in the questionnaire.

Many significant correlative findings came from this study. Increased intention to use condoms was found to correlate with the following: higher hedonistic beliefs ( $r=.374$ ), greater approval from sexual partner ( $r=.597$ ), greater approval from peers ( $r=.299$ ), greater confidence in negotiating ( $r=.237$ ), higher self-efficacy ( $r=.279$ ), and greater impulse control ( $r=.403$ ). Approval from sexual partner was the most significant influence on intention to use condoms in the Jemmott et al. study (2002). In addition to these findings related to the Theory of Planned Behavior, younger age ( $r=-.176$ ), higher religiosity ( $r=.242$ ), and female gender ( $r=.163$ ) were found to be correlated with a greater intention to use condoms as well.

Concerning actual use of condoms at most recent vaginal intercourse, partner's approval, impulse control, and age had significant effects. Students reporting stronger partner approval, greater impulse control, and younger age were more likely to have used a condom at most recent vaginal intercourse (Jemmott et al., 2002). Importantly, condom use at most recent anal



intercourse was also studied. Findings indicate that impulse control had the only significant effect; that is, students who reported greater impulse control were more likely to have used a condom at most recent anal intercourse.

The findings of Jemmott et al. (2002) show that normative beliefs very strongly influence condom use intentions for Latino college students. This contrasts the study of Jemmott & Jemmott (1992) in which attitudes toward condom use rather than social norms were most predictive of condom use intentions. For actual condom use, Jemmott et al. (2002) emphasize that it is important to note that self-reported condom use was found to be much less common for anal intercourse (20.0%) than vaginal intercourse (51.6%). Given the high-risk nature of anal intercourse, this is important to consider in nursing practice, as well as for further study. For the current study, different types of intercourse (vaginal, anal, oral) are asked about separately to further investigate this difference in condom use.

#### *The protective role of health values*

Rosengard, Adler, Gurvey, Dunlop, Tschann, Millstein, & Ellen (2001) conducted a recent study with 236 participants in an STD clinic in San Francisco. They were interested in health values and their role in adolescents' future intentions to use condoms. The researchers added the factor of health values to the Theory of Planned Behavior (TPB) to see if it is useful in predicting intentions to use condoms. Health values were measured using the Value on Health Scale to assess different domains of health including physical fitness, sense of energy, weight control, resistance to illness, and endurance (Rosengard et al., 2001). Intentions to use condoms were asked with repeated measures to ensure reliability: how often they would use condoms, how likely they were to use condoms every time, how sure they were that they would actually use them, and how likely that they would *not* use condoms (reverse scored).

The findings indicate that general health values *do*, in fact, have a protective role on the intention to use condoms. A stronger importance placed on health values was found to significantly correlate with stronger intentions to use condoms. Also, past use of condoms was found to positively correlate with stronger intentions to use condoms in the future; this supports the similar findings of Kegeles et al. (1989) that past use predicts future intention. In support of other studies (Kegeles, 1989; Jemmott & Jemmott, 1992; Craig et al., 2000), this study found that positive attitudes played a vital role in predicting condom-use intentions; that is, positive attitudes toward condoms were associated with stronger intentions to use them (Rosengard et al., 2001).

#### *Qualitative findings of condom use and intentions*

Coleman (2001) conducted individual interviews that were phenomenological in nature rather than a predetermined questionnaire format and examined condom use and intentions. The study began with 56 participants, but only 22 returned for a second interview three months later and could be included in the findings. The use of a longitudinal design appears useful; however, this study emphasizes the importance of a means of contact (e.g., phone number or e-mail) if follow-up is to occur. However, the findings from the 22 participants who did return allows for an interesting look into condom use and intention.

Based on unstructured interviews, the researcher decided that people fall into one of six groups (Coleman, 2001). The first group is called “Consistent users”. These are people who have always used a condom in all their experiences of sexual intercourse and intend to in the future. The second is the “Converted users”. These people reported that they sometimes did not use condoms; however, between the two interviews of this study, they had used condoms consistently. The third group, she deemed “Influenced users”. They are strongly influenced by

their partners concerning whether or not they use a condom. Fourth, the “Over-optimists” were identified as those who rarely use condoms but often intend to. The fifth group is “The resigned” who, like the Over-optimists, rarely use condoms but who know they will not (although they think they should) and so do not intend to. “Consistent non-users” do not use condoms, do not intend to, and do not care. The latter presents a particularly difficult group to influence toward healthier behaviors because they are seemingly unwilling to change.

The researcher’s intent in developing these six groups (Consistent users, Converted users, Influenced Users, Over-optimists, The resigned, and Consistent non-users) is to emphasize that certain health interventions may be more relevant to some than others (Coleman, 2001). Ideally, sexual health information would be tailored to the individual. The researcher notes that it is encouraging that not all groups are static. Some changed over time simply with the involvement of the researcher, indicating that sexual health information interventions can be effective. Coleman (2001) found evidence that women were more likely to report men as a stronger influence upon condom use than vice versa, notably connecting this work to that of Agnew & Loving (1998). As a drawback, the study does not differentiate between different types of sexual intercourse (vaginal, oral, and anal) which would be useful. Although this study is limited in some ways, it still provides valuable basic information concerning condom use and intentions to use.

### *Conclusion*

The consistent theme of the effects of attitudes on participants’ decisions to intend to use condoms and then to actually use them is evident through existing research (Kegeles, 1989; Jemmott & Jemmott, 1992; Craig et al., 2000; Rosengard, 2001). The recurrence of these findings strengthens the implications for health care providers to target adolescents’ attitudes

towards condoms when teaching about contraception and prevention of STIs. Jemmott et al. (2002) is presently the only study that has addressed the potential differences in intention when considering the different types of sexual intercourse by including questions concerning anal intercourse. However, more information is needed concerning anal intercourse, and oral intercourse has not even been investigated. This study included all three types of intercourse and explored barriers to use with each type of intercourse. Additionally, an important time frame for intentions was explored in this study – that being not the factors leading up to the initial intention, but rather the factors that interfere between the time of intention and actual use of condoms, or lack thereof.

### Chapter 3 – Methods

This study was a secondary analysis of a larger study which examined preferences about receiving sexual health promotion information among individuals who have had a sexually transmitted infection (STI) and those who have never had one.

#### *Sample*

The convenience sample consisted of 55 valid participants ages 18-28 ( $M = 22.2$ ,  $SD = 2.66$ ). Of the sample, 81.8% were female, and 18.2% were male. Participants self-reported their ethnicity as 1.8% African American, 9.1% Asian American, 78.2% Caucasian, 9.1% Hispanic, and 1.8% as “other”. About 65.5% were Christian, 1.8% were Jewish, 9.1% were “other”, and 23.6% reported that they had no religion. Most of the participants were college students (94.5%) in long-term relationships (63.7%), and the mean number of months with partner was 22.1 ( $SD = 24.9$ ). The participants were required to be able to speak and read English. It was not necessary that participants label themselves as “sexually active” because some may not view participation in anal or oral intercourse as making one “sexually active” and would consequently self-select to

not participate in the study. In an effort to include this population, a designation of “sexually active” was not an inclusion criterion.

### *Procedure*

The Institutional Review Board at OSU approved the larger study and subsequent analyses. The participants were recruited through an advertisement placed in the campus newspaper that asked for people to be part of a study investigating information preferences in sexual health. Those interested in participating in the study were instructed to call the researcher at a given phone number and to set up an interview time. After informed consent was secured, the interviews were held with the researcher in a private office at the College of Nursing, and the responses were audio taped. These tapes were later transcribed for purposes of analysis.

After the interview portion, participants were given the demographic and sexual history questionnaire and an envelope in which to seal the questionnaire. The researcher left the room for this portion. The questionnaire collected sensitive information concerning sexual history and behaviors and so was purposefully after the interview portion, in order that the rapport between the interviewer and participant would not be impacted. The entire session lasted approximately 1 hour, and the subjects were given a \$20 honorarium for participating.

### *Instruments*

The interview questions and the demographic and sexual history questionnaire were developed by the principal investigator of the original study and were not part of an existing instrument. Consequently, validity and reliability have not yet been investigated. However, experienced researchers were consulted during the construction of the instruments to determine content validity.

The interviews consisted of ten opened-ended questions concerning sexual health promotion information – the first five concerning past information and the second five concerning “ideal” information. In addition, demographic and sexual history information was collected in a questionnaire including information such as gender, past sexual behavior, and questions concerning condom use and intentions to use.

#### *Focus Questions for this Analysis*

Three questions in the sexual history questionnaire were the focus of this secondary analysis:

1. How often do you **actually** use condoms or barriers when having oral sex?
2. How often do you have the **intention** to use condoms or barriers when having oral sex?
3. What things would interfere with your intentions to use condoms for oral sex?

Each of these questions was repeated to ascertain similar information for vaginal and anal sex.

The first two questions are rated on a five-point Likert scale ranging from 1 (*never*) to 5 (*all the time*). The third question is open-ended and was coded for purposes of data entry.

#### *Data Analysis*

Descriptive statistics were used to analyze the demographic data. Research questions 1 (intention frequency) and 2 (actual use frequency) were also analyzed by descriptive statistics. Research question 3 (relationship between intention and actual use) was analyzed for a correlation using Pearson’s  $r$ , and alpha level was set at .05. Research question 4 (factors that interfere with condom use) was analyzed by content analysis. The content analysis was performed on all open-ended questions using McLaughlin and Marascuilo’s (1990) three-phase technique. The first phase was to identify the individual units of analysis within each question.

Two researchers working independently determined these units. A percent agreement for interrater reliability was obtained. These percentages were all above 90%. An a priori acceptance rate was set at 80% agreement, a percentage far above agreement by chance (Krippendorf, 1980).

The second phase of the content analysis was to create mutually exclusive and exhaustive categories (McLaughlin & Marascuilo, 1990). A researcher sorted responses into groups of similar themes. Each theme was then given a name and a definition and thus became a category. In the third or final phase, a second researcher re-sorted the responses into those categories. Percent agreement between the two researchers was then obtained. The interrater reliability across all categories was above 90%. Again, the a priori minimal acceptance level was 80% agreement.

#### Chapter 4 – Results

Of the 55 participants, not all have engaged in the different types of intercourse. Therefore, the  $N$  value for each type of intercourse is different:  $N = 48$  for vaginal intercourse,  $N = 49$  for oral intercourse, and  $N = 12$  for anal intercourse. Frequency means and standard deviations for intention to use condoms and actual use of condoms come only from these valid participants. For all types of intercourse, the same Likert-type scale was used (i.e., 1 = *never*, 2 = *sometimes*, 3 = *half the time*, 4 = *usually*, 5 = *all the time*).

##### *Means – Vaginal Intercourse*

The mean value of intentions to use condoms for vaginal intercourse was 3.52 (SD = 1.53). The mean value of actual condom use for vaginal intercourse was 3.15 (SD = 1.50). These scores indicate that condom usage and intentions were over half the time.

##### *Means – Oral Intercourse*

The mean value of intentions to use condoms for oral intercourse was 1.39 (SD = .89). The mean value of actual condom use for oral intercourse was 1.24 (SD = .66). These scores indicate that individuals rarely have intentions to use or actually use condoms during oral sex.

#### *Means – Anal Intercourse*

The mean value of intentions to use condoms for anal intercourse was 2.83 (SD = 1.85). The mean value of actual condom use for anal intercourse was 2.42 (SD = 1.78). These scores indicate that individuals had intentions to use condoms and actually used condoms sometimes.

#### *Relationship between Intentions to Use and Actual Use of Condoms*

There were strongly significant Pearson correlations between intention and actual use for many combinations among the different types of intercourse. A positive correlation was noted between intention and actual use for vaginal ( $r = .92, p < .001$ ), oral ( $r = .72, p < .001$ ), and anal intercourse ( $r = .77, p = .004$ ). This indicates simply that there is, in fact, a correlation between intentions and actual use; however, as reported above, both are low.

The data also indicated that there are some cross-relationships between types of intercourse, but only between vaginal and anal intercourse. Significant Pearson correlations existed between intention for vaginal and intention for anal ( $r = .81, p = .001$ ), actual for vaginal and actual for anal ( $r = .83, p = .001$ ), intention for vaginal and actual for anal ( $r = .66, p = .02$ ), and intention for anal and actual for vaginal ( $r = .75, p = .005$ ). No significant relationships between oral intercourse and the other two types were noted.

#### *Factors that Interfere with Condom Use*

Participants were asked an open-ended question related to factors that would interfere with actual condom use. Categories developed by the researchers were consistent across the three types of intercourse, and titles given to the categories are the product of the researchers as a



system to organize the data. The entire list of possible categories follows: *mood breaker* (related to timing, spontaneity, and affecting “the mood”), *condom issues* (related to mechanics of the condom including fit and lubrication), *nothing* (respondent indicated that nothing would interfere with his/her intentions), *familiarity* (“knowing” the partner), *pregnancy unlikely* (as a result of route or alternate birth control), *pregnancy desired*, *hedonistic* (related to pleasure including feeling, texture, taste), *intoxication*, *availability*, *unsure* (respondent not sure what would interfere with intentions), *tested/clean* (partner has been tested and is free of disease), *perception of low risk*, and *social norms*.

#### *Interferences for Vaginal Intercourse*

Factors that would interfere with the intention to use condoms for vaginal intercourse in this sample (N = 48) are *hedonistic* (23.2%), *nothing* (16.1%), *availability* (14.3%), *intoxication* (10.7%), *condom issues* (10.7%), *familiarity* (7.1%), *mood breaker* (5.4%), *pregnancy desired* (5.4%), *pregnancy unlikely* (1.8%), *perception of low risk* (1.8%), *social norms* (1.8%), and *unsure* (1.8%).

#### *Interferences for Oral Intercourse*

Factors that would interfere with the intention to use condoms for oral intercourse in this sample (N = 49) are *hedonistic* (51.1%), *availability* (13.3%), *mood breaker* (8.9%), *condom issues* (6.7%), *nothing* (6.7%), *pregnancy unlikely* (4.4%), *familiarity* (2.2%), *unsure* (2.2%), and *tested/clean* (2.2%).

#### *Interferences for Anal Intercourse*

Factors that would interfere with the intention to use condoms for anal intercourse in this sample (N = 12) are *nothing* (27.3%), *pregnancy unlikely* (18.2%), *hedonistic* (18.2%), *condom issues* (9.1%), *perception of low risk* (9.1%), *intoxication* (9.1%), and *unsure* (9.1%).

## Chapter 5 – Discussion

This study investigated intentions to use condoms and actual condom use, as well as questioning the factors that could interfere with intentions. Vaginal intercourse is the type of intercourse that is most studied concerning these behaviors; it is either explicitly studied or simply assumed when one refers to “intercourse”. Anal intercourse has been preliminarily studied by Jemmott et al. (2002) and some studies with homosexual men but, for the most part, goes largely unstudied. Oral intercourse, as it relates to condom use and intentions, is never mentioned in the literature, and this study provides a long overdue look into condom behaviors related to this type of intercourse.

Intentions and actual condom use for vaginal intercourse, on average, fall between *half the time* and *usually*. Intentions and actual condom use for oral intercourse, on average, rank between *never* and *sometimes*. For anal intercourse, intentions and actual condom use are, on average, between *sometimes* and *half the time*. The language used in the Likert scale of the sexual history questionnaire illuminates the fact that commitment to condom use and commitment to intending to use condoms are clearly low among this sample. The data for condom behavior related to oral intercourse is perhaps most disturbing because it has been so under-researched and it proves in this study to be a clear point of weakness.

The optimistic result from the perspective of the practitioner is that intention to use condoms is found to consistently and significantly correlate with actual condom use for each type of intercourse: vaginal, oral, and anal. While both are found to be low in this study, they are at least related to one another. The implication is that, although a causative relationship is not shown by the correlation, it would stand to reason that one is affected by the other. Practitioners cannot directly affect the actual use of condoms, as they are not standing in the bedroom when

such decisions are made. Alternately, they can affect intentions through education and information dissemination. One could assume from the results of this study that if we can increase intentions, we could hope to increase actual condom use.

The information to specifically address in primary intervention is revealed in the data concerning factors that interfere with the sample's intentions to use condoms. For oral intercourse, of special interest because of its new-found place in the research, it is important to note the overwhelming response for the category titled *hedonistic*. This was due in large part to responses related to taste. While it serves intuition to assume that such would be the case, it is now officially supported by data. Confirmation of intuition is not, however, reason to allow such reasoning to be overlooked. It should compel the practitioner to broach the topic with clients. Discussion with clients must make reasonable acknowledgement of interferences and then help them to come to a reasonable solution, including condom use. Data provided in this study related to interferences provides a starting point for conversation.

Limitations of this study are related mainly to the drawbacks of a convenience sample. One would think that the use of condoms relates largely to the male because it is a form of contraception that physically goes on the male. However, only 18.2% of the participants in this study were male, a number clearly well-below the actual percentage of males in the population. More males in the sample may provide a more accurate picture of true intentions and actual use. Additionally, the sample was mostly Caucasian (78.2%). While this is somewhat representative of the population, it could be helpful to include more members of vulnerable populations. Other studies propose to do just that by including only black women or Latinos, and these studies serve to provide important insight into these populations.

Avenues for future research include more studies related to condom use for oral and anal intercourse. While the vaginal intercourse research is overwhelming but should still continue to be reevaluated, the others go largely unstudied and should certainly be included in future studies to catch up with data for vaginal intercourse. In addition, studies that target condom behaviors for homosexual intercourse are absent from research but would be a valuable addition. Such studies may be challenging due to lack of current literature and difficulties recruiting sufficient participants, but it would fill a profound gap in the research. Also, further investigation of participant characteristics and how they relate to condom behaviors will only help practitioners to tailor interventions. A clear next step in this research that addresses vaginal as well as oral and anal intercourse is how to actually increase condom use and change people's behavior.

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