Variations in Young Men's and Women's Attitudes and Intentions to Use Condoms With Different Types of Sexual Partners

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Currently, the most highly effective method for the prevention of unwanted pregnancy and sexually transmitted infections (STIs), including HIV, is the consistent and correct use of condoms (Warner & Hatcher, 1998). Research examining the sexual behaviors and risks of adolescents and young adults is particularly important given that this is a time in psychosocial development when young people are becoming sexually active (Carver, Joyner, & Udry, 2004). During this critical period, adolescents and young adults may be increasing the risks of STI and HIV infection by not using condoms (Brown & Vanable, 2007; Reisen & Poppen, 1999). It is estimated that roughly half of the new HIV infections in the United States are among young people under the age of 25 years (Centers for Disease Control and Prevention, 2008).

The purpose of the current study was to assess the attitudes young men and women have toward condoms and their intentions to use condoms with different types of sexual partners. This approach conceptualizes attitudes and intentions to use condoms with different sexual partner types as a potential predictor of actual condom use with various sexual partner types (e.g., monogamous, casual).

Research in the area of adolescent and young adult sexual health has outlined several different ways in which individuals conceptualize sexual partners (Bauman & Berman, 2005; Ellen, Cahn, Eyre, & Boyer, 1996; Lansky, Thomas, & Earp, 1998; Reisen & Poppen, 1999; Rosengard, Adler, Gurvey, & Ellen, 2005). Variations in conceptualization may also influence the intention to use condoms with different types of partners on the basis of the amount of perceived risk (Lescano, Vazquez, Brown, Litvin, & Pugatch, 2006; Reisen & Poppen, 1999). Other research has indicated that adolescents and young adults' views regarding sexual risk and disease potential vary across types of sexual partners, which may affect intentions to use condoms consistently for sexual interactions across a spectrum of sexual behaviors and sexual partner types (Brown & Vanable, 2007; Chatterjee, Hosain, & Williams, 2006; Macaluso, Demand, Artz, & Hook, 2000).

Inconsistent condom use during adolescent and young adult first sexual experiences remains a clinical challenge for the prevention of STIs. Behavioral theory provides a useful tool to identity and target modifiable determinants of sexual behavior for both clinical

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practice and intervention development. Additionally, understanding how individuals form their motivations and actions, including condom use behaviors, may also inform the development of effective intervention strategies to decrease STI transmission and unwanted pregnancies among adolescents and young adults.

Methods

Participants

In an effort to maintain confidentiality, an anonymous online questionnaire was constructed to assess young men's and women's condom attitudes and behaviors with various sexual partner types. Participants were recruited through university listservs (e.g., university student groups and department listings) and electronic flyers that were disseminated on a popular U.S. social networking Web site. Permission was granted from all listservs, and applicable advertising guidelines were followed. Eligibility criteria included being at least 18 years of age, identifying as heterosexual, having Internet access, and being able to read in English. The university's institutional review board for the protection of human subjects approved all research procedures.

Attitudinal Measures

Participants were asked to complete a brief 20-minute online questionnaire consisting of demographic questions, including age, education, hometown size, and racial/ethnic background. Participants were then asked to complete several behaviorally specific questions assessing their general frequency of condom use for four sexual behaviors: (a) manual genital stimulation, (b) oral genital stimulation, (c) penile–vaginal intercourse (PVI), and (d) penile–anal intercourse (PAI). Questions about variations in condom use with different sexual partner types (e.g., casual vs. monogamous/exclusive) were asked: "With a… partner would you use a condom…?" This was followed with a description of the partner type and the sexual behavior. Partner types were defined as: (a) *monogamous*—a boyfriend or girlfriend; (b) *casual monogamous*—one main sex partner with sporadic others or "friends with benefits"; (c) *nonmonogamous*—one main sex partner but can have (or do have) additional sex partners; and (d) *casual*—multiple casual sex partners or hookups. Response options consisted of a 5-point Likert scale ranging from 1 (*Always*) to 5 (*Never*). Sexual behaviors of interest included manual (hand) genital stimulation, oral (mouth) genital stimulation, PVI, and PAI. Participants were then asked to complete the Brief Condom Attitude Scale (BCAS; Hill, Amick, & Sanders, 2011), an 18-item questionnaire assessing general attitudes about condoms with four factors: interruption, eroticism, negativity, and protection. The BCAS was used because it used gender-neutral wording of questions so that both sexes could complete the same questionnaire. All items were then entered into Predictive Analytics Software (PASW, version 18.0) for analysis.

Data Analysis

A *t*-test was first used to compare gender differences in age. An analysis of variance (ANOVA) was used to compare women's and men's general condom use for all specified behaviors. Additional ANOVAs were conducted to compare young men's and women's attitude scores (BCAS scores) and intentions to use condoms with different partner types (e.g., monogamous, casual partner) for PVI responses. Because distributions for the dependent variables were skewed, significance was verified using an individual Mann-Whitney U test with $p < .05$ criteria; Spearman's correlations were used to explore the relationships among condom attitudes, intentions to use condoms for PVI with different partner types, and general condom use for PVI. Additionally, a multiple linear regression using stepwise modeling was used to determine which attitude measures and intentions were predictive of general condom use for PVI.

Results

Participants

Participants included in the final analyses consisted of 594 self-identified heterosexual individuals ages 18–25 years pooled from a larger sample of 674 completed questionnaires. The sample consisted of 415 young women (mean age = 20.8 years; SD = 1.33) and 179 young men (mean age = 21.2 years, SD = 1.33). The men in the sample were significantly older than the women ($t = -3.201$; $p = .001$).

Table 1. Mean Scores by Gender for Brief Condom Attitude Scale, Behavioral Intention to Use Condoms, and General Condom Use ($N = 594$)

Score Item	Women (95% CI)	Men (95% CI)	*F* Test	*p*
Brief Condom Attitude Scale				
Factor 1 *Condoms as Interruptive*	3.45 (3.33 to 3.57)	3.19 (3.07 to 3.31)	13.33	<.001
Factor 2 *Condoms as Erotic*	3.07 (3.05 to 3.09)	3.02 (3.00 to 3.04)	.370	.543
Factor 3 *Condoms as Negative*	3.39 (3.32 to 3.46)	3.23 (3.16 to 3.30)	4.65	.031
Factor 4 *Condoms as Protective*	2.60 (2.45 to 2.75)	2.28 (2.15 to 2.43)	19.34	<.001
Behavior Intentions (1 = *Always*, 5 = *Never*)				
Condom use for PVI with a monogamous partner	2.67 (2.56 to 2.78)	2.44 (2.34 to 2.54)	3.08	.080
Condom use for PVI with a nonmonogamous partner	1.40 (1.33 to 1.47)	1.59 (1.51 to 1.67)	4.40	.036
Condom use for PVI with a casual monogamous partner	1.44 (1.37 to 1.51)	1.61 (1.53 to 1.69)	4.98	.026
Condom use for PVI with a casual partner	1.18 (1.11 to 1.25)	1.42 (1.31 to 1.53)	14.72	<.001
Condom Use Behaviors (1 = *Always,* 5 = *Never*)				
Condom use for manual genital stimulation	4.92 (4.85 to 4.95)	4.82 (4.77 to 4.87)	3.78	.052
Condom use for oral genital stimulation	4.85 (4.85 to 4.85)	4.85 (4.85 to 4.85)	.003	.958
Condom use for PVI	2.53 (2.40 to 2.66)	2.27 (2.16 to 2.38)	4.66	.031
Condom use for PAI	3.63 (3.29 to 3.97)	3.32 (2.99 to 3.65)	1.21	.274

NOTE: CI = Confidence interval; PVI = Penile–vaginal intercourse; PAI = Penile–anal intercourse.

Similar to the demographics of the university where the data were collected, the majority of the sample identified as primarily White or Caucasian (89.9%).

General Condom Use

General condom use for manual genital stimulation ($M = 4.89$, $SD = .52$) and oral genital stimulation ($M = 4.85$, $SD = .58$) were on average quite low. Additionally, the response rate of participants (approximately 29%) to questions regarding condom use for PAI ($M = 3.50$, $SD = 5.0$) was too low for comparative analyses across different types of sexual partners. There were no significant differences between men and women for general condom use behaviors for manual genital stimulation, oral genital stimulation, and PAI (Table 1). The analyses included in this study focus primarily on condom use associated with PVI. A significant gender difference was found for general condom use for PVI ($F[1] = 4.66$, $p = .031$), with young men ($M = 2.27$, $SD = 1.19$) significantly more likely to report using a condom in general for PVI than young women ($M = 2.53$, $SD = 1.36$).

Condom Attitudes

According to the BCAS, young men ($M = 3.19$, $SD = .81$) were significantly more likely to consider condoms as an interruption to foreplay and sexual arousal ($F[1] = 13.33$, $p < .001$) than young women ($M = 3.45$, $SD = .78$). Additionally, young men ($M = 3.23$, $SD = .80$) were significantly more likely ($F[1] = 4.65$, $p = .031$) to consider condoms as negative compared to young women ($M = 3.39$, $SD = .83$). Young women ($M = 2.60$, $SD = .81$) were significantly less likely to view condoms as protective ($F[1] = 19.34$, $p < .001$) than young men ($M = 2.29$, $SD = .78$).

Intentions and Sexual Partner Type

No significant gender differences were found for the intention to use condoms with a monogamous partner for PVI ($F[1] = 3.08$, $p = .08$). However, young men and women did significantly differ on their intention to use condoms for PVI with all types of nonmonogamous sexual relationships (described above). Compared to young men, young women indicated higher intention to use condoms for PVI with a nonmonogamous sexual partner ($F[1] = 4.40$, $p = .036$; men: $M = 1.59$, $SD = .95$; women: $M = 1.40$, $SD = .81$), with a casual monogamous sexual partner ($F[1] = 4.98$, $p = .026$; men: $M = 1.61$, $SD = .94$; women: $M = 1.44$, $SD = .82$), and with a causal sexual partner ($F[1] = 14.72$, $p < .001$; men: $M = 1.42$, $SD = .84$; women: $M = 1.18$, $SD = .54$).

Attitudes, Intentions, and Behavior

Multiple linear regression was used to determine which condom attitudes and intentions to use condoms

with different sexual partner types were predictive of general condom use for PVI. Initially, correlations amongst the attitudes, intentions, and condom behavior were examined. Correlations ranged from .125 to .843, and all were significantly correlated. All predictor variables were significantly correlated with general condom use for PVI. Because significant gender differences were found in both the intention to use condoms with different sexual partner types and condom attitude subscales, models were generated separately for each gender. Assumptions for using multiple linear regression were met and collinearity statistics were well within the acceptable range.

When both condom attitudes and intentions to use condoms were entered into a stepwise regression model for young women, the strongest predictors for greater condom use for PVI was higher intention to use condoms for PVI with a monogamous sexual partner ($\beta = .754$; 95% confidence interval [CI] = .618 to .752), followed by higher intention to use condoms for PVI with a nonmonogamous sexual partner ($\beta = .093$; 95% CI = .042 to .249) and lower negative attitudes toward condoms ($\beta = -.125$; 95% CI = $-.238$ to $-.012$). For young men, the strongest predictors for greater condom use for PVI was higher intention to use condoms for PVI with a monogamous sexual partner ($\beta = .677$; 95% CI = .473 to .667) and higher intention to use condoms for PVI with a casual monogamous sexual partner ($\beta = .161$; 95% CI = .058 to .348).

Discussion

Young men and women in our study were overall less likely to use condoms for manual and oral stimulation compared to PVI. Additionally, few participants responded to questions relating to PAI, and thus little is known about the condom-related behaviors and intentions to use condoms for PAI on the basis of the current sample of young heterosexual men and women. When examining the gender differences in general condom use behaviors, the only gender difference between young men and women was for PVI condom use behaviors.

In general, young women in our sample tended to respond with more positive attitudes toward condom use than men, and more women had higher intentions to use condoms for causal monogamous, nonmonogamous, and casual sexual partners. However, even with more positive attitudes toward condoms and greater intention to use condoms in general, young women had lower intention to use condoms for PVI with monogamous partners and were less likely to report condom use in general for PVI than the young men in the sample. Thus, young women's overall positive attitudes toward condoms and high intentions to use condoms were not indicative of intentions to use condoms across all types of sexual partners (i.e., monogamous) and sexual behaviors.

When examining condom attitudes, young women tended to view condoms as less interruptive and less negative than young men; however, young women were still more likely to disagree that condoms were a protective method of preventing unwanted pregnancies and STIs. This may reflect young women's experiences using condoms and/or their experiences using other contraceptive methods that may have been perceived to be more effective. This reiterates the notion that attitudes, beliefs, and perceptions of sexual risk where condoms are concerned are likely to be influenced by other contextual variables. Therefore, it is imperative that behavioral research and clinical practices examining and assessing attitudes and intentions to use condoms for PVI consider a full spectrum of potential mediating variables that are likely to influence attitudes, intentions, and actual behavior.

One of the limitations to our study is that the recruitment mainly relied on convenience samples. Most of our sample consisted of women, and our sample was predominantly White. Another limitation in regard to age may have been that the group of young men used for comparison was older than the group of young women. Future attitude and intention studies on condoms are needed using more diverse samples, particularly in terms of age, race, ethnicity, sexual orientation, and culture.

Research in the area of condom attitudes, intentions, and behaviors has indicated that variables such as race, ethnicity, and sexual orientation may be highly influential to an individual's condom use behaviors (Chatterjee et al., 2006; Nelson & Morrison-Beedy, 2008; Nelson, Morrison-Beedy, Kearney, & Dozier, 2011a, 2011b; Smith, 2003). Studies examining condom use behaviors in different cultures are likely to highlight the importance culture has on these dimensions (de Walque & Kline, 2011; Westercamp

et al., 2010). Further, gender investigations within culture may highlight unique gender differences in condom attitudes, intentions, and sexual partner types, given the strong influence culture has on gender roles and behavior.

Another limitation in gender comparisons may be a difference in sexual semantics between young men and women (Smith, 2003). Given the discrepancies in the intention to use condoms for PVI with different sexual partner types, it was possible that young men and women conceptualized the sexual partner types differently. Additionally, young men and women may have used different measures or indicators of risk in order to determine which partner types were perceived as less risky than others. Thus, differences in the overall semantics of sexual partner types may have influenced an individual's response.

Gender differences in both condom attitudes and the intentions to use condoms highlight the fact that sexual situations are not solely individualistic but rather a dyadic relationship in which two parties have the power to influence one another. For example, in a heterosexual sexual situation where there are discontinuities across gender in the attitudes and intentions to use condoms, it is possible that a condom is not used for PVI even if one individual has positive condom attitudes and high intentions to use condoms. Given the dynamics of dyadic transactions, one individual may be more influential in persuading the other partner to not use condoms. Conversely, it is equally possible that individuals with positive condom attitudes and high intentions to use condoms for PVI may increase the likelihood that nonusing partners use condoms when engaging in sexual interactions. Therefore, it is important that future studies, particularly those focused on intervention, examine the interaction of the sexual pair or dyad, especially in casual sexual situations where power dynamics may not be clear and condom use may not be thoroughly discussed, resulting in incomplete or inconsistent use.

Research and clinical practices particularly focused on gender relations may also highlight that not all power dynamics within a sexual situation are equal, and an individual's gender may decrease the amount of social power he or she has in a sexual situation, thus forgoing his or her own condom attitudes and intentions to use condoms. Gender dynamics may be particularly relevant in cultures with strict gender roles and norms where one partner makes decisions regarding condom use and birth control. Research further exploring the influence of dyadic relationships in regard to the directionality of use (e.g., individuals with positive attitudes and high intentions motivate nonusing partners) is likely to highlight new avenues for behavioral health interventions and improved clinical assessment.

Disclosures

The authors report no real or perceived vested interests that relate to this article (including relationships with pharmaceutical companies, biomedical device manufacturers, grantors, or other entities whose products or services are related to topics covered in this manuscript) that could be construed as a conflict of interest.

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