

# The Critical Role of Intimacy in the Sexual Risk Behaviors of Gay and Bisexual Men

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**Abstract** Research indicates that high numbers of gay and bisexual men report infrequent or inconsistent condom use, placing them at risk for HIV and other STDs. The present study examined positive and negative condom-related attitudes along three dimensions—risk reduction, pleasure reduction, and intimacy interference—and examined their relative predictive power in determining condom use among a sample of sexually risky gay and bisexual men in New York City. In a multivariate model, both risk reduction and intimacy interference attitudes emerged as significant predictors of unprotected sex; however, the variance accounted for by a model including intimacy interference was almost three times that accounted for by a model including risk reduction alone. These data suggest a pivotal role for intimacy in shaping condom attitudes and behavior among gay and bisexual men. HIV prevention interventions should consider incorporating intimacy as a motivating factor for sexual behavior and a potential barrier to condom use.

**Resumen** Resultados de investigaciones indican que gran cantidad de hombres gay y bisexuales reportan uso infrecuente o inconsistente de condones, poniendolos en riesgo de

contraer VIH y enfermedades de transmisión sexual. La investigación presente examinó actitudes positivas y negativas sobre condones en tres dimensiones—la reducción del riesgo, la reducción del placer, y la interferencia con la intimidad—asi como su relativo poder para predecir el uso de condones en hombres gay y bisexuales de la Ciudad de Nueva York, cuyo comportamiento sexual es de alto riesgo. En un modelo de multivariados, la actitudes sobre reducción de riesgo e interferencia de intimidad emergieron como predictores significativos de sexo sin protección; sin embargo, la variación representada por la interferencia de intimidad resultó tres veces mayor que aquella representada por la reducción de riesgo. Estos datos indican que la intimidad cumple una función primordial en la formación de actitudes sobre condones y en el comportamiento sexual de hombres gay y bisexuales. Las intervenciones de prevención del VIH deben considerar la incorporación de intimidad como un factor de motivación del comportamiento sexual, asi como un obstáculo para el uso de condones.

**Keywords** MSM · HIV · Risk · Intimacy · Condom use

## Introduction

Though they constitute approximately 4% of the US male population, men who have sex with men (MSM) account for over half (53%) of the new HIV infections in the United States each year [1]. This rate of new diagnoses is more than 44 times that of other men, and MSM constitute the only risk group in the US in which new HIV infections are increasing [1]. Prior to recent advances in biomedical prevention strategies, the vast majority of prevention efforts targeted at MSM have focused on promoting condom use. Correct and consistent use of latex condoms

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remains the single most effective HIV prevention strategy for sexually active MSM; however, research indicates that high numbers of MSM report infrequent or inconsistent condom use. As such, many studies have examined motivations for and against condom use, in order to identify the strongest determinants of this critical prevention behavior.

Many theoretical models and empirical studies of condom use have focused on associated risk perceptions, i.e. the extent to which MSM perceive themselves to be at risk for HIV infection and perceive condom use to effectively reduce that risk. Almost all theories of health behavior that have been applied to condom use include these two elements of risk perception, positing them as fundamental prerequisites for effective and consistent condom use [2–5]. However, researchers debate the significance and strength of risk perceptions in predicting actual condom use behavior among gay, bisexual, and other MSM [6–8]. Research suggests that MSM may be knowledgeable about HIV risks and condom use, but a thorough and accurate understanding of risk does not fully account for sex behaviors and the use of condoms [9, 10]. In one meta-analysis, exposure to prevention information was found to increase positive attitudes toward and intentions to use condoms but did not increase condom use behavior [11]. Both HIV-negative and HIV-positive MSM report engaging in risk reduction strategies other than condom use [12], with some of these strategies estimated to result in three- to five-fold increases in the risk of infection [13, 14]. As such, most researchers are in agreement that risk perception is a necessary but not sufficient condition for consistent condom use.

Another widely studied negative predictor of condom use is the perception that condoms interfere with sexual pleasure. Regardless of sexual orientation, men often report preferring condomless sex due to increased arousal and sensation, as well as a greater likelihood of maintaining an erection [15–18]. The desire for pleasure is believed to overwhelm or significantly interfere with calculations of risk, resulting in high-risk sexual behaviors. Among gay and bisexual men, pleasure-seeking has been reported by both receptive and insertive partners as a significant and pivotal variable within negotiations of condom use [19, 20]. Although few educational, psychosocial or behavioral interventions have been developed that specifically focus on eroticization of condom use [21], meta-analysis suggests that those that do include an erotic component produce significant positive impacts on condom use [22].

Less understood, particularly in the experiences of gay and bisexual men, are the relational or interpersonal variables that may affect condom use [23]. Studies of heterosexual partners have demonstrated that the use of condoms has relational significance; specifically, heterosexual

partners report that the use of condoms may signify a lack of trust, a lack of emotional bond or a lack of intimacy during sex acts [16]. These relational factors, which can be considered examples of “intimacy interference” resulting from condom use, are also reported by gay, bisexual, and other MSM [19, 24, 25]. Evidence suggests that gay and bisexual men similarly view condoms as a barrier to intimacy, preventing the emotional experiences of closeness and bonding that are afforded by condomless sex [26–29]; however, the effect of relational variables on the use of condoms amongst gay and bisexual men has received scant attention in the literature; this may be due, in part, to stereotypic attitudes toward sexual behavior in this population—namely that relational elements are secondary or insignificant to gay or bisexual men.

The present study is designed to examine the role of condom-related attitudes along these three dimensions—risk reduction, pleasure reduction, and intimacy interference—in predicting condom use among a sample of sexually risky, substance-using gay and bisexual men. Specifically, we were interested in comparing the importance of intimacy interference to that of the two other more widely studied predictors, in order to examine the relative contributions of each of the three condom-related attitudes in predicting unprotected sex acts in this population, as well as their potential utility in prevention intervention development.

## Methods

### Participants and Procedures

This article presents baseline data collected from gay and bisexual men recruited in the New York City metropolitan area for a study focused on substance use and sexual risk. Between September 2007 and September 2010, 318 participants completed a quantitative survey. To be eligible, participants had to be men, at least 18 years of age, self-report a negative or unknown HIV serostatus, and report at least 5 days of substance use (including cocaine, methamphetamine, gamma hydroxybutyrate, ecstasy, ketamine, or poppers) and at least one incident of unprotected anal intercourse with a casual or serodiscordant main male partner in the last 90 days. Men completed baseline assessments consisting of psychosocial measures via audio computer-assisted self-interview (ACASI) software and an interviewer-administered timeline followback of recent (30 day) substance use and sexual behavior, as described more fully below. The Hunter College Institutional Review Board approved all procedures and measures in the study.

Participants were recruited through a multimethod approach implemented in diverse geographic areas in the New York City metropolitan area using techniques previously effective in the recruitment and enrollment of substance-using MSM [30]. Both active and passive recruitment strategies were used. Potential participants were recruited for a study focused on substance use and sexual behavior among MSM, and then, upon the completion of the baseline assessment, were offered the option to enroll in a randomized controlled trial of a behavioral intervention. Study visits took place at the Center for HIV Educational Studies and Training in New York City. Participants were compensated \$40 for a 2 hour visit.

## Measures

### *Demographics*

Participants reported their age, sexual identity, race/ethnicity, education level, income, and current relationship status.

### *Condom-Related Attitudes*

Thirteen items assessing attitudes toward condom use were adapted from the Decisional Balance for Unsafe Sex Scale [31] and a measure of situational temptation for unprotected sex [32]. These items formed the basis for three condom attitude subscales, each assessing a different aspect of motivation or barriers to condom use. The Risk Reduction subscale consists of five items ( $\alpha = 0.78$ ) and was used to assess beliefs that condoms reduce risk associated with sexual activity. Items included statements such as “Having sex without a condom could cause me to get HIV,” and “Using condoms reduces my risk for HIV/STDs.” The Pleasure Reduction subscale consists of four items ( $\alpha = 0.74$ ) and was used to assess beliefs that condoms reduce the pleasure associated with sex. Items included statements such as “It feels better to have sex without a condom,” and “It’s too difficult to relax and enjoy myself when using condoms.” Participants rated each item on a 5-point Likert scale, with higher scores indicating stronger beliefs that condom use reduces pleasure associated with sex. The Intimacy Interference subscale consists of four items ( $\alpha = 0.72$ ) and was used to assess beliefs that condom use reduces sexual intimacy. Items included statements such as “Having sex without a condom makes me feel more connected to my partner,” and “Not using a condom with a partner shows him that I trust him.” For each subscale, participants rated items on a 5-point Likert-type scale, with higher scores indicating stronger risk reduction, pleasure reduction, and intimacy interference beliefs about condom use, respectively.

### *Sexual and Substance Use Behavior*

The timeline followback (TLFB) semi-structured interview [33], modified for the assessment of sexual risk behavior and substance use [34, 35], was used to collect data for the previous 30 days. Critical life events (i.e., vacations, birthdays, paycheck days, parties) are reviewed retrospectively to prompt recall of daily behaviors, which are recorded on a personalized calendar. The TLFB has demonstrated good test–retest reliability, convergent validity, and agreement with collateral reports for sexual behavior and substance use [36, 37]. Interviewers for this project received extensive training in the administration of the TLFB, and demonstrated skills (as evidenced through ongoing review of audiotapes of the TLFB interview and supervision) in the development of rapport with participants and remaining non-judgmental and sex-positive in order to facilitate honest self-reports and to respect the values and behaviors of all participants. Using a calendar, interviewers asked participants to report the type of sexual activity (anal or oral intercourse; protected or unprotected) by partner type (main or casual) on each day of the preceding 30 days. For each sexual behavior, participants also reported whether they were sober or under the influence of drugs. Participants also reported days of drug use when sexual activity did not occur.

## Results

### Demographics

Among the full sample of 318 gay and bisexual men, 73 participants (23%) reported having a main romantic partner. Because the interaction of condom-related attitudes and behavior are likely to operate differently by partner type (even within a given individual), we decided to focus this analysis on the impact of condom-related attitudes on sexual risk with casual partners. Therefore, the analytic sample for the current study included only single-identified men ( $N = 245$ ). Excluded participants did not differ from the study sample on demographic variables or condom-related attitudes. Demographic data on study participants are presented in Table 1. Participants ranged in age from 18 to 65 ( $M = 29.0$ ,  $SD = 7.1$ ). Participants were relatively well distributed across categories of race/ethnicity, education, and employment status. Over half the sample (54.7%) reported an annual income of less than \$30,000.

### Condom Attitudes

Participants’ scores on the Risk Reduction subscale were negatively skewed, indicating that the majority of

**Table 1** Sample characteristics and differences by condom attitudes ( $n = 245$ )

	<i>n</i>	%	Risk reduction subscale M (SD)	Pleasure reduction subscale M (SD)	Intimacy interference subscale M (SD)
Overall	245	–	3.31 (0.76)	2.19 (0.94)	1.51 (1.00)
Sexual identity					
Gay	227	92.7	3.33 (0.74)	2.18 (.94)	1.49 (1.00)
Bisexual	18	7.3	3.07 (0.87)	2.25 (1.01)	1.82 (1.02)
Age					
18–24	68	27.8	3.42 (0.62)	2.18 (0.90)	1.51 (0.93)
26–34	128	52.2	3.33 (0.78)	2.18 (0.96)	1.50 (1.05)
35 and over	49	20.0	3.12 (0.76)	2.22 (0.97)	1.54 (1.00)
Race					
Caucasian	100	40.8	3.29 (0.71)	2.18 (0.95)	1.40 (1.02)
African American	46	18.8	3.10 (0.86)	2.12 (0.97)	1.48 (0.93)
Latino	67	17.2	3.47 (0.74)	2.34 (0.93)	1.69 (1.03)
Mixed and other	32	13.1	3.37 (0.73)	2.02 (0.91)	1.54 (0.98)
Education					
Less than a 4 year degree	133	54.3	3.29 (0.78)	2.23 (0.91)	1.58 (1.03)
4 year college degree or more	112	45.7	3.34 (0.74)	2.14 (0.98)	1.44 (0.97)
Income					
\$29,999 or less	134	54.7	3.33 (0.73)	2.20 (0.97)	1.53 (1.02)
\$30,000 or more	111	45.3	3.29 (0.80)	2.18 (0.90)	1.49 (0.98)

Note Within columns, means with different superscripts differ significantly at  $P < 0.05$

participants strongly endorsed beliefs that condoms reduce risk for HIV and STDs ( $M = 3.31$ ,  $SD = 0.76$ ). In subsequent analyses, this variable was log-transformed to correct for skew. Both the Pleasure Reduction and Intimacy Interference subscales were adequately and normally distributed. There was no significant correlation between the Risk Reduction subscale and either the Pleasure Reduction ( $r = -0.01$ ) or Intimacy Interference ( $r = -0.03$ ) subscales; however, there was a strong correlation between beliefs regarding Pleasure Reduction and Intimacy Interference,  $r = 0.67$ ,  $P < 0.001$ .

Table 1 also presents mean endorsement of each of the three condom attitudes subscales by demographic variables. There were no significant differences in condom attitudes by age, sexual identity, race/ethnicity, education, or income.

### Risk Behavior

Participants reported an average of 8.51 ( $SD = 13.42$ ) anal sex acts in the past 30 days (median = 6,  $IQR = 2-10$ ) with an average of 5.63 ( $SD = 5.77$ ) partners (median = 4,  $IQR = 2-8$ ). A “high-risk” sex act was defined as any unprotected anal intercourse with a casual partner, and participants reported an average of 5.09 high-risk sex acts in the past 30 days (median = 2,  $IQR = 1-5$ ). An average

of 50.2% of participants’ total sex acts in the past 30 days were high-risk (median = 50%,  $SD: 36.7%$ ). Higher scores on the Risk Reduction subscale were associated with a lower percentage of sex acts that were high risk ( $r = -0.19$ ,  $P < 0.01$ ). In contrast, higher scores on both the Pleasure Reduction and Intimacy Interference subscales were associated with higher percentage of high-risk sex acts,  $r = 0.26$ ,  $P < 0.001$  and  $r = 0.31$ ,  $P < 0.001$ , respectively.

### Model Predicting Percent Risky Acts from Condom Attitudes

Hierarchical linear regression was performed to examine the utility of the three condom attitude subscales in predicting the percentage of participants’ anal sex acts in the past 30 days that were unprotected. We used a percentage rather than a raw score in order to examine the impact of condom-related attitudes on condom use relative to participants’ overall level of sexual activity. For example, this method prevents us from classifying a participant who reports two unprotected sex acts out of two total sex acts as engaging in “less” unprotected sex than a person who reports three unprotected sex acts out of fifteen instances of anal sex. The results of this regression are presented in Table 2. Because of the high correlation between the

**Table 2** Results of hierarchical linear regression

Outcome: percentage of total sex acts that were high risk

	Step 1			Step 2		
	B	95% CI	$\beta$	B	95% CI	$\beta$
Risk Reduction	−0.41**	−0.68, −0.15	0.19	−0.39**	−0.65, −0.14	0.18
Pleasure Reduction				0.04	−0.03, 0.10	0.10
Intimacy Interference				0.09**	0.03, 0.15	0.23
	Adjusted $R^2 = 0.03^{**}$			Adjusted $R^2 = 0.12^{**}$		
	$F_{\text{step}}(1,241) = 9.23^{**}$			$\Delta$ Adjusted $R^2 = 0.09^{**}$		
				$F_{\text{model}}(3,239) = 12.01^{**}$		

\* $P < 0.05$ \*\* $P < 0.01$ 

Pleasure Reduction and Intimacy Interference subscales, we conducted an evaluation of multicollinearity through criteria provided by Belsely, Kuh and Welsch [38]. The last root had a condition index equal to 6.81; however, no dimension had more than one variance proportion greater than 0.50, indicating that no multicollinearity was evident in the regression analysis.

In the first step, the Risk Perception subscale was entered, and predicted 3% of the variability in the outcome, such that stronger beliefs that condoms reduce HIV/STD risk were associated with a lower percentage of anal sex acts that were unprotected. In the second step, both the Pleasure Reduction and Intimacy Interference subscales were added, predicting an additional 9% of the outcome variance. The coefficients for both the Risk Reduction and Intimacy Interference subscales were significant in this step. Higher scores on the Intimacy Interference subscale—i.e. stronger beliefs that condoms reduce sexual intimacy—were associated with a greater percentage of unprotected acts. Scores on the Pleasure Reduction subscale—i.e. stronger beliefs that condoms reduce sexual pleasure—did not contribute significantly to the prediction of percentage of unprotected acts.

## Discussion

Findings from this study suggest a pivotal role for beliefs about condoms reducing intimacy in predicting unprotected sex with casual partners among a group of substance-using, sexually risky gay and bisexual men. Not surprisingly, participants endorsed strong beliefs about the risk reduction benefits of condom use, but these beliefs accounted for only 3% of the variance in the percentage of sex acts that were unprotected. In comparison, the inclusion of intimacy interference beliefs accounted for an additional 9% of model variance. Beliefs that condoms

reduce intimacy were strongly associated with beliefs that condoms reduce pleasure; however, in the multivariate model, only intimacy emerged as a significant predictor of percentage of sex acts that were unprotected.

This paper is among the first to compare the relative importance of pleasure- versus intimacy-related attitudes in predicting unprotected sex among gay and bisexual men. Our findings complement those of other studies suggesting that intimacy is a powerful motive in sexual decision-making among gay and bisexual men [39]. Many gay and bisexual men report being reluctant to give up the sexual and emotional intimacy associated with unprotected sex [40, 41], and in one study of Latino gay men, participants reported that sex with condoms was incompatible with intimacy and trust [42]. To a large extent, HIV prevention messages themselves have contributed to the disassociation between condom use and interpersonal trust, telling gay men that they must use condoms specifically because they cannot trust their sexual partners' HIV-status disclosures or commitments to monogamy.

An enhanced understanding of intimacy concerns and motives among gay, bisexual, and other MSM must acknowledge that intimacy includes not only physical or sexual closeness, but also emotional connectedness, self-disclosure, acceptance, and trust [43]. MSM report that their interest in establishing intimate connections may come into conflict with their desire to reduce sexual risk, and studies have found intimacy to be a motivating factor in partner selection practices or other risk-reduction strategies such as serosorting [39]. Past studies of motivations for barebacking have linked pleasure and emotional connection as a single factor associated with unprotected anal sex [26]. Our findings suggest that while pleasure and intimacy may be correlated, intimacy plays a greater role in predicting condom-use.

It is important to note that this analysis was restricted to gay and bisexual men who self-identified as “single” and

predicted condom use with casual, rather than main partners. A recent report that 52–74% of new HIV infections among MSM can be traced back to “main” partners [44], underscores the importance of investigating the role of intimacy among partnered gay and bisexual men as well; an analysis of condom attitudes and sexual behavior with both main and casual partners among the 73 partnered men in this sample is forthcoming. However, the fact that intimacy plays such a powerful role in condom use even in casual sexual encounters for gay and bisexual men suggests a fundamental need to reevaluate prevention messages, including the extent to which men may privilege intimacy motives over risk reduction. More research is needed into the ways in which condom use may disrupt processes of intimacy among gay and bisexual men and the extent to which men may forgo condom use for the explicit purpose of communicating to a casual partner that they want to alter their relationship status toward romantic commitment.

These data are subject to several limitations. The Risk Reduction, Pleasure Reduction, and Intimacy Interference subscales were not originally designed to tap into these constructs. It is possible that participants were subject to demand characteristics that biased their responses, especially those who had reported the most high-risk behavior. However, we would hypothesize that this type of demand would result in an overestimate of the role of the Pleasure Reduction subscale, rather than the Intimacy Interference subscale, and our data demonstrated the opposite pattern. Because of the nature of the study from which these data are drawn, participants are active substance users living in an urban setting, and may not generalize to other populations of gay and bisexual men. However, this population is considered at highest risk for HIV infection, and can be argued to be those most in need of innovative intervention strategies.

In this study, we used percentage of sex acts that were high-risk, rather than a raw score of number of unprotected sex acts as our variable of interest. The use of a percentage allows us to focus on the role of condom attitudes on risk within the context of each individual’s behavioral profile. In other words, we examined the extent to which condom attitudes influenced the percent of the time in which an individual had unprotected sex, such that a man had unprotected sex in two out of two encounters is considered more strongly influenced than a man who had unprotected sex in three out of ten encounters. However, this analytic strategy does not control for overall number of sex acts or partners in its analysis. It seems reasonable to assume that risk reduction and intimacy interference attitudes might operate differently to influence condom use as the number of repeat sex acts with the same casual partner increases. An act-by-partner analysis was beyond the scope of the present paper; however, future analyses should consider analytic approaches that can take such issues into account.

These data provide an important call for further investigation into the meaning and role of intimacy in the sexual decision-making of gay, bisexual, and other MSM. Further research should distinguish between different types of intimacy—e.g., sexual intimacy, emotional intimacy—and examine the interaction of intimacy and pleasure as motivating factors for condomless sex. To the extent that HIV prevention messages in gay communities tout condoms as a substitute for disclosure and trust, both researchers and practitioners should consider alternative framings that help gay and bisexual men validate their need for emotional connectedness as part of their sexual experiences and expression. These data suggest the need for the development of HIV prevention approaches that incorporate intimacy concerns, and assist MSM in navigating both intimacy and risk-reduction motives.

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