

## Sexual Pleasure and Condom Use

Mary E. Randolph · Steven D. Pinkerton ·  
Laura M. Bogart · Heather Cecil · Paul R. Abramson

Received: 15 September 2005 / Revised: 19 April 2007 / Accepted: 19 April 2007 / Published online: 2 October 2007  
© Springer Science+Business Media, LLC 2007

**Abstract** The purpose of the present study was to determine whether sexually-experienced individuals' pleasure ratings for protected and unprotected vaginal intercourse would be related to actual condom use. College participants (80 women and 35 men, M age = 22.29 years) who reported engaging in vaginal intercourse in the past 3 months completed a questionnaire that assessed their perceptions of the pleasurability of unprotected and condom-protected vaginal intercourse and their own sexual behaviors. Both women and men rated unprotected vaginal intercourse as more pleasurable than protected vaginal intercourse. However, men's pleasure ratings for unprotected vaginal intercourse were higher than women's. Furthermore, men and women's pleasure ratings for condom-protected intercourse were correlated with their actual condom use behaviors. Men's "pleasure decrement" scores indicated a significantly

greater reduction in pleasure ratings between unprotected and protected intercourse than women's scores. Men who perceived a larger decrease in pleasure between unprotected and protected intercourse were less likely to have used condoms in the past 3 months than those who perceived a smaller decrease in pleasure. The results provide evidence that many people believe that condoms reduce sexual pleasure and that men, in particular, who believe that condoms decrease pleasure are less likely to use them. Condom promotion campaigns should work to emphasize the pleasure-enhancing aspects of condom use.

**Keywords** Risky sexual behavior · HIV/AIDS prevention · Gender · Condoms · Sexuality

### Introduction

Pleasure plays a central role in motivating human sexual activity (Abramson & Pinkerton, 2002; Pinkerton, Cecil, Bogart, & Abramson, 2003). Consequently, any artifice that interferes with the pleasures of sex is likely to be avoided or accepted reluctantly. This is particularly true of latex condoms, the cornerstone of current international efforts to prevent the spread of HIV and other sexually transmitted infections. Condoms interpose a mechanical barrier between sex partners, limit physical contact, reduce tactile sensation, and attenuate heat transduction, all of which reduce sexual pleasure. This reduction in pleasure is one of the main reasons people cite for eschewing condom use (Albarracín et al., 2000; Choi, Rickman, & Catania, 1994; Crosby, Yarber, & Meyerson, 1999; Norton, Bogart, Cecil, & Pinkerton, 2005).

Relatively little information is available on the relationship between people's perceptions that condoms reduce sexual pleasure and their actual condom use behaviors.

---

M. E. Randolph · S. D. Pinkerton  
Center for AIDS Intervention Research, Department of  
Psychiatry & Behavioral Medicine, Medical College of  
Wisconsin, Milwaukee, WI, USA

L. M. Bogart  
Rand Corporation, Santa Monica, CA, USA

H. Cecil  
Department of Psychology, Pennsylvania State University,  
Harrisburg, PA, USA

P. R. Abramson  
Department of Psychology, University of California, Los  
Angeles, CA, USA

*Present Address:*  
M. E. Randolph (✉)  
St. Jude Children's Research Hospital, 332 N. Lauderdale St.,  
Mail Stop 740, Memphis, TN 38105-2794, USA  
e-mail: mary.randolph-frye@stjude.org

Helweg-Larsen and Collins (1994) found a significant correlation between the UCLA Multidimensional Condom Attitudes Scale's "pleasure factor" and male participants' self-reported condom use. The "pleasure factor" included five items related to the impact of condom use on intimacy, spontaneity, and physical comfort (e.g., "condoms ruin the sex act," "use of a condom is an interruption of foreplay," and "condoms are uncomfortable for both partners"). One may question whether this factor adequately captures the positive physical sensations usually associated with the term "pleasure." Hingson, Strunin, Berlin, and Heeren (1990) provided a more direct test of the relationship between condom use and beliefs that condoms reduce sexual pleasure. In their study, adolescents who always used condoms during intercourse in the past year were significantly more likely than non-consistent condom users to believe that the statement, "condoms reduce pleasure," was "not at all true" or "a little true" rather than "somewhat true" or "very true."

Few studies have asked participants to directly rate the pleasurability of protected or unprotected intercourse. Catania et al. (1989) found that adolescent women's greater "enjoyment of condoms" (i.e., "how much [do] you enjoy or think you might enjoy [vaginal intercourse with a condom]") was associated with more frequent condom use in the past 2 months. Kelly and Kalichman (1998) asked 297 gay and bisexual men to rate the pleasure they derived from unprotected insertive and receptive anal intercourse on a 5-point Likert scale. Higher pleasure ratings were associated with less frequent condom use during anal intercourse.

In summary, prior studies support the hypothesis that persons who believe condoms "interfere with pleasure" (Helweg-Larsen & Collins, 1994) or "reduce pleasure" (Hingson et al., 1990), or who rate condom-protected sex as less enjoyable (Catania et al., 1989) or pleasurable (Kelly & Kalichman, 1998) than unprotected sex may be less likely to use condoms in practice. We felt that further research into the relationship between perceived pleasure and condom use was needed for several reasons. First, two of the four studies reviewed above enrolled adolescents 15–19 years of age (Catania et al., 1989; Hingson et al., 1990) and a third (Helweg-Larsen & Collins, 1994) focused on college freshmen (M age = 19 years). Pleasure and condom use among young adults—the age group most likely to acquire a sexually transmitted infection (Institute of Medicine, 1997)—remains understudied. Second, previous research reports conflicting findings with regard to potential gender differences in the influence of pleasure on condom use (Conley & Collins, 2005; Helweg-Larsen & Collins, 1994). Third, a thorough examination of the possible influence of pleasure on condom use requires consideration of both protected and unprotected sex. Kelly and Kalichman (1998) asked about the pleasurability of unprotected (anal) intercourse, but not its condom-protected counterpart. If participants' pleasure ratings for unprotected

and condom-protected intercourse were positively correlated, then higher pleasure ratings for *condom-protected* intercourse also might be associated with condom use, calling into question any interpretation of the association between men's pleasure ratings for *unprotected* intercourse and their actual condom use. To establish whether condom use is associated with perceptions that condoms reduce pleasure, rather than a disposition to perceive sex, both protected and unprotected, as highly pleasurable, it is important to examine the difference in pleasure ratings between protected and unprotected sex.

The present study assessed the relationship between somewhat older college students' sexual behaviors and the pleasure ratings they assigned to unprotected and condom-protected vaginal intercourse. The main objective of the study was to determine whether pleasure ratings would be related to actual condom use, and more specifically, whether perceptions that condoms *decrease* pleasure would be associated with decreased condom use. We anticipated that unprotected intercourse would be given higher pleasure ratings than condom-protected intercourse; that higher pleasure ratings for *protected* sex would be positively associated with condom use (Catania et al., 1989); and conversely, that higher pleasure ratings for *unprotected* sex would be inversely associated with condom use (Kelly & Kalichman, 1998). As men more often cite pleasure as a reason for engaging in sexual intercourse and more often perceive condom-protected sexual intercourse as less pleasurable than unprotected intercourse (Choi et al., 1994; Pötsönen & Kontula, 1999; Whitley, 1988), we hypothesized that the difference in men's pleasure ratings for unprotected and protected intercourse would be greater than the corresponding difference for women, and that differences in protected versus unprotected pleasure ratings would be more strongly associated with actual condom use for men than for women.

## Method

### Participants

Eligible participants were 145 women and 78 men enrolled in an undergraduate human sexuality course at a large urban university in California (Pinkerton et al., 2003). The present study focused on the 80 women and 35 men who engaged in vaginal intercourse in the previous 3 months. The mean age of study participants was 22.29 years ( $SD = 2.33$ ), with a range of 20–40 years. The study sample was racially and ethnically diverse (40.9% White, 27.0% Asian/Pacific Islander, 16.5% Hispanic, 1.7% African American, 1.7% Native American, 9.6% multiracial, and 2.6% "other"). Almost all participants were college seniors (95.6%) and

were single (95.7%). Over half (68.2%) of the single participants had a steady partner, whereas 17.3% were not presently dating and 14.5% were dating more than one person. Of the 108 participants who responded to the sexual orientation question, 89.8% (66 women and 31 men) self-identified as heterosexual; eight women and one man identified themselves as bisexual, one woman declined to state and one woman described her sexual orientation as “other.”

### Procedure

Participants completed an anonymous questionnaire during a regularly scheduled class period. The questionnaire took approximately 40 minutes to complete and assessed perceptions of the pleasurability of various sexual practices and participants' own sexual behavior. Participation was voluntary.

### Measures

Participants were asked two questions concerning their recent vaginal intercourse behaviors: “How many times did you have vaginal intercourse in the past 3 months?” and “When you had vaginal intercourse in the past 3 months, what percentage of the time did you or your partner use a condom?” A three-month recall period was chosen based on evidence that people generally can accurately recall sexual behaviors that occurred within this time frame (Kauth, St. Lawrence, & Kelly, 1991). Participants were asked to rate, on a 5-point Likert scale, the perceived pleasurability of unprotected and condom-protected vaginal intercourse, along with several other sexual activities. The questionnaire instructions (“Please rate how pleasurable you think each activity is on the scale below”) were followed by a list of eight sexual activities (e.g., “vaginal intercourse without a condom”). Response choices were anchored by the labels (1) “not at all pleasurable” and (5) “very pleasurable”; intermediate response choices were not labeled.

### Data analysis

All 115 study participants reported engaging in vaginal intercourse in the previous three months, though not all had engaged in both unprotected and protected intercourse. Because the main research questions concerned the relationship between perceived pleasure and the use of condoms, the analyses included all participants, regardless of whether or not they had used condoms in the previous 3 months.

Students' *t*-test was used to compare groups; degrees of freedom were adjusted as necessary to control for violations of equal variances. Logistic regression was conducted to assess the influence of a perceived decrease in pleasure between unprotected and condom-protected vaginal intercourse on the likelihood of using condoms in the past three months. Missing pleasure ratings were replaced by sample means (9.6% of ratings).

### Results

#### Pleasure ratings for protected and unprotected vaginal intercourse

Men rated unprotected vaginal intercourse, but not condom-protected vaginal intercourse, as more pleasurable than did women ( $p = .03$ ), as indicated in Table 1. Both women and men rated unprotected vaginal intercourse as significantly more pleasurable than condom-protected intercourse ( $p < .001$ ).

To assess the extent to which condoms were perceived as *reducing* sexual pleasure, each participant's pleasure rating for condom-protected vaginal intercourse was subtracted from his or her rating for unprotected vaginal intercourse to create a “pleasure decrement” score. Men's pleasure decrement scores were significantly larger than women's ( $p = .03$ ), indicating that men believed that condoms reduced pleasure more than did women.

**Table 1** Pleasure ratings by gender<sup>a</sup>

	Women ( $N = 80$ )		Men ( $N = 35$ )	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Unprotected vaginal intercourse	4.65 <sup>b,c</sup>	0.64	4.85 <sup>b,d</sup>	0.36
Condom-protected vaginal intercourse	3.85 <sup>c</sup>	1.02	3.54 <sup>d</sup>	1.22
Pleasure decrement score	0.85 <sup>e</sup>	0.98	1.31 <sup>e</sup>	1.18

<sup>a</sup> Pleasure was rated on a scale from 1 (“not at all pleasurable”) to 5 (“very pleasurable”)

<sup>b</sup>  $t(106.87) = -2.17, p = .03$

<sup>c</sup>  $t(79) = -6.82, p < .001$

<sup>d</sup>  $t(34) = -6.57, p < .001$

<sup>e</sup>  $t(113) = 2.19, p = .02$

**Table 2** Pleasure ratings as a function of condom use<sup>a</sup>

	Condom users		Non-users	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Women ( <i>N</i> = 80)	(N = 38)		(N = 42)	
Unprotected vaginal intercourse	4.60	0.76	4.69	0.52
Condom-protected vaginal intercourse	4.41 <sup>b</sup>	0.83	3.61 <sup>b</sup>	1.12
Men ( <i>N</i> = 35)	(N = 21)		(N = 14)	
Unprotected vaginal intercourse	4.80	4.01	4.93	0.27
Condom-protected vaginal intercourse	3.94 <sup>c</sup>	1.02	2.93 <sup>c</sup>	1.27

<sup>a</sup> Pleasure was rated on a scale from 1 (“not at all pleasurable”) to 5 (“very pleasurable”)

<sup>b</sup>  $t(78) = 2.21, p = .03$

<sup>c</sup>  $t(33) = 2.60, p = .02$

### Pleasure and condom use

Overall, 51.3% of study participants (47.5% of women and 60.0% of men) reported using condoms during vaginal intercourse in the past three months. Women and men did not significantly differ with respect to whether or not they had used condoms. For the following analyses, condom use was dichotomized as “never used” and “sometimes used.”

Pleasure ratings for *condom-protected* vaginal intercourse were higher among men who had used condoms in the past three months than among men who had not used condoms ( $p = .02$ ), as shown in Table 2. In contrast, condom use was not related to men’s pleasure ratings for *unprotected* vaginal intercourse. Logistic regression analysis showed that men with larger pleasure decrement scores were less likely to have used condoms (OR = .37,  $p = .01$ , 95% CI = .17, .80), accounting for 30% of the variation in condom use (Nagelkerke  $R^2$ ). Thus, men who believed that condoms reduced pleasure were less likely to use them.

As with men, women who had used condoms in the past three months reported higher pleasure ratings for *condom-protected* vaginal intercourse than women who had not used condoms ( $p = .03$ ), but there was no relationship between women’s condom use and their pleasure ratings for *unprotected* intercourse. Women with larger pleasure decrement scores were less likely to have used condoms in the past three months (OR = .58,  $p = .04$ , 95% CI = .34, .98). However, their pleasure decrement scores accounted for only 8% of the variation in condom use (Nagelkerke  $R^2$ ) and the Hosmer and Lemeshow Test was significant,  $\chi^2(3, N = 80) = 15.50, p = .001$ , suggesting that the statistical model did not fit the data well.

### Discussion

The results of this study indicated that both women and men believed that the use of condoms during vaginal intercourse significantly reduced sexual pleasure. However, men

appeared to more highly value unprotected sex and to believe that condoms *reduced* pleasure more than did women. This result was consistent with Conley and Collins’ (2005) finding that men reported that condoms interfered with pleasure to a greater extent than do women, but was contrary to the findings of Helweg-Larsen and Collins (1994), who did not find gender differences on their “pleasure factor.”

Higher pleasure ratings for condom-protected vaginal intercourse were associated with the likelihood of condom use for both women and men. But pleasure ratings for unprotected intercourse were not related to actual condom use. This contrasts with Kelly and Kalichman’s (1998) finding that pleasure ratings for unprotected anal intercourse were associated with less frequent condom use in a sample of gay and bisexual men. To our knowledge, the present study is the first to simultaneously assess the relationship between perceived pleasure for *protected* intercourse and condom use, as well as the relationship between perceived pleasure for *unprotected* intercourse and condom use. The pleasure decrement score analysis controlled for within-subjects correlations between pleasure ratings for protected and unprotected intercourse and clearly indicated the significant association between men’s perceptions that condoms reduced pleasure and their actual condom use behaviors.

Like men, women believed that unprotected intercourse was more pleasurable than protected intercourse. Moreover, women’s pleasure ratings for condom-protected intercourse were positively associated with their actual condom use behaviors. However, men rated unprotected sex as significantly more pleasurable than did women. Additionally, women’s pleasure decrement scores were significantly smaller than men’s, and accounted for only 8% of the variation in condom use, versus 30% for men. These gender differences were consistent with previous research reporting that pleasure is a more important factor in the decision to use or not use condoms for men than it is for women (Choi et al., 1994; Helweg-Larsen & Collins, 1994; Pötsönen & Kontula, 1999; Sheer, 1995).

Several limitations to this study should be noted. First, this cross-sectional study employed a convenience sample that primarily consisted of Asian and White college students, limiting the generalizability of the results. Second, the sample of women and men who had engaged in vaginal intercourse in the previous 3 months was relatively small (particularly the sample of men), which may have limited power to detect significant associations. Third, the cross-sectional design did not permit inferences regarding whether perceived pleasure affects condom use or vice-versa. It is likely that pleasure ratings reflect past experience and are reinforced (or contradicted) by subsequent experiences, and that perceived pleasure then influences future condom use decisions.

There is no denying that latex condoms reduce tactile sensation. However, the experience of pleasure is inherently subjective, reflecting the complex interplay of sensation, emotion, and cognition (Abramson & Pinkerton, 2002). Refocusing condom promotion campaigns (and condom marketing) to emphasize the pleasure-enhancing aspects of condom use—such as condoms' ability to prolong sexual intercourse, thus increasing psychosexual tension, and ultimately sexual pleasure—could help overcome perceptions that condoms significantly diminish pleasure, allowing the other benefits of condom use to come to the forefront. Moreover, condoms themselves could be improved by developing thinner and/or better heat transducing materials to increase sensitivity and pleasure for both partners (Pinkerton & Abramson, 1995). In the end, perceptions that condoms decrease sexual pleasure are a formidable—but not insurmountable—barrier to public health efforts to increase condom use among sexually-active youth.

**Acknowledgment** This research was supported, in part, by grants T32-MH19985, P30-MH52776, and R01-MH72474 from the National Institute of Mental Health.

## References

- Abramson, P. R., & Pinkerton, S. D. (2002). *With pleasure: Thoughts on the nature of human sexuality*. New York: Oxford University Press.
- Albarracín, D., Ho, R. M., McNatt, P. S., Williams, W. R., Rhodes, F., Malotte, C. K., et al. (2000). Structure of outcome beliefs in condom use. *Health Psychology, 19*, 458–468.
- Catania, J. A., Dolcini, M. M., Coates, T. J., Kegeles, S. M., Greenblatt, R. M., Puckett, S., et al. (1989). Predictors of condom use and multiple partnered sex among sexually-active adolescent women: Implications for AIDS-related health interventions. *Journal of Sex Research, 26*, 514–524.
- Choi, K. H., Rickman, R., & Catania, J. A. (1994). What heterosexual adults believe about condoms. *New England Journal of Medicine, 331*, 406–407.
- Conley, T. D., & Collins, B. E. (2005). Difference between condom users and condom nonusers in their multidimensional condom attitudes. *Journal of Applied Social Psychology, 35*, 603–620.
- Crosby, R. A., Yarber, W. L., & Meyerson, B. (1999). Frequency and predictors of condom use and reasons for not using condoms among low-income women. *Journal of Sex Education and Therapy, 24*, 63–70.
- Helweg-Larsen, M., & Collins, B. E. (1994). The UCLA Multidimensional Condom Attitudes Scale: documenting the complex determinants of condom use. *Health Psychology, 13*, 224–237.
- Hingson, R. W., Strunin, L., Berlin, B. M., & Heeren, T. (1990). Beliefs about AIDS, use of alcohol and drugs, and unprotected sex among Massachusetts adolescents. *American Journal of Public Health, 80*, 295–299.
- Institute of Medicine. (1997). *The hidden epidemic*. Washington, DC: National Academy Press.
- Kauth, M. R., St. Lawrence, J. S., & Kelly, J. A. (1991). Reliability of retrospective assessments of sexual HIV risk behavior: A comparison of biweekly, three-month, and twelve-month self-reports. *AIDS Education and Prevention, 3*, 207–214.
- Kelly, J. A., & Kalichman, S. C. (1998). Reinforcement value of unsafe sex as a predictor of condom use and continued HIV/AIDS risk behavior among gay and bisexual men. *Health Psychology, 17*, 328–335.
- Norton, T. R., Bogart, L. M., Cecil, H., & Pinkerton, S. D. (2005). Primacy of affect over cognition in determining adult men's condom use behavior: A review. *Journal of Applied Social Psychology, 35*, 2493–2534.
- Pinkerton, S. D., & Abramson, P. R. (1995). The joys of diversification: Vaccines, condoms, and AIDS prevention. *AIDS & Public Policy Journal, 10*, 148–156.
- Pinkerton, S. D., Cecil, H., Bogart, L. M., & Abramson, P. R. (2003). The pleasures of sex: An empirical investigation. *Cognition and Emotion, 17*, 341–353.
- Pötsönen, R., & Kontula, O. (1999). How are attitudes towards condoms related to gender and sexual experiences among adolescents in Finland? *Health Promotion International, 14*, 211–219.
- Sheer, V. C. (1995). Sensation seeking predispositions and susceptibility to a sexual partner's appeals for condom use. *Journal of Applied Communication Research, 23*, 212–229.
- Whitley, B. E. (1988). The relation of gender-role orientation to sexual experience among college students. *Sex Roles, 19*, 619–638.