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Does it fit okay? Problems with condom use as a function of self-reported poor fit

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ABSTRACT

Objective To identify associations between men's self-reports of ill-fitting condoms and selected condom use problems, using an event-specific analysis.

Methods A convenience sample of men was recruited via advertisements in newspapers (two urban and one small town) and a blog on the website of a condom sales company. Men completed a questionnaire posted on the website of The Kinsey Institute for Research in Sex, Gender, and Reproduction. Inclusion criteria were: at least 18 years old, used condoms for penile–vaginal intercourse in the past 3 months and the ability to read English.

Results In controlled, event-specific, analyses of 436 men, those reporting ill-fitting condoms (44.7%) were significantly more likely to report breakage (adjusted odds ratio (AOR) 2.6), slippage (AOR 2.7), difficulty reaching orgasm, both for their female partners (AOR 1.9) and for themselves (AOR 2.3). In addition, they were more likely to report irritation of the penis (AOR 5.0) and reduced sexual pleasure, both for their female partner (AOR 1.6) and for themselves (AOR 2.4). Furthermore, they were more likely to report that condoms interfered with erection (AOR 2.0), caused erection loss (AOR 2.3), or became dry during sex (AOR 1.9). Finally, they were more likely to report removing condoms before penile–vaginal sex ended (AOR 2.0).

Conclusions Men and their female sex partners may benefit from public health efforts designed to promote the improved fit of condoms.

A sizeable minority of men report problems with condom fit.^{1–5} Surprisingly little research has investigated the influence of ill-fitting condoms on men's sexual experiences or on condom breakage and slippage during penile–vaginal intercourse (PVI). A few studies have concluded that poor “fit and feel” may be related to breakage,^{1–3} and one found an effect for slippage.³ Although “fit” may be very important to men,^{6,7} the effect of ill-fitting condoms on penile erection and on the experience of penile–vaginal sex has not previously been investigated. Because breakage and slippage constitute condom failure and because condom use may be avoided/discontinued because of reduced sexual pleasure, studies determining the effects of ill-fitting condoms on these problems are warranted. Accordingly, the purpose of this study was to identify associations between men's self-reports of ill-fitting condoms and selected condom use problems, using an event-specific analysis.

METHODS

Study sample

A convenience sample (n = 440) was recruited via advertisements in newspapers and a blog on the

website of a condom sales company that directed men to the questionnaire posted on the website of The Kinsey Institute for Research in Sex, Gender, and Reproduction. Inclusion criteria were: male, at least 18 years old, used condoms for PVI in the past 3 months and the ability to read English. The advertisement read as follows: “The Kinsey Institute is needing men to complete a brief, on-line questionnaire on condom use and erection-enhancing substances.” Approval for the study was obtained from the Indiana University Institutional Review Board.

Measures

All assessments focused on the last condom use event for PVI. Men were asked to indicate whether the condom they last used fit “OK” relative to length or whether it was too long or too short. They were also asked whether the width was “OK”, too narrow, or too wide. Men indicating “OK” to both items were classified as having a “good” fit and all others were classified as having “ill-fitting” condoms. Twelve outcomes were assessed (table 1) by items appearing under a stem that read: “Thinking about the last time you used a condom for penile–vaginal sex (PVI), did you...”; response options were “yes” or “no”.

Identification of covariates

In addition to age, three additional covariates were assessed and tested for their relationship with the key variable (ill-fitting condoms): marital status, US resident, and alcohol use during the last time condoms were used for PVI. Marital status was not significantly associated with the key variable (p = 0.17) using a screening criterion of p = 0.10; however, the other three were related to reports of ill-fitting condoms.

Data analysis

Men reporting ill-fitting condoms the last time condoms were used were compared with the remaining men who did not report ill-fit. Bivariate associations were assessed by contingency table analyses employing prevalence ratios, their 95% CI and respective p values. Next, a hierarchical multiple logistic regression model calculated adjusted odds ratios (AOR). The first block used direct entry to control for the covariates. The second block contained only the key variable. The model was used sequentially with the 12 outcomes (table 2).

RESULTS

Characteristics of the sample

Average age was 29.6 years (range 18–67 years, SD 10.1). The majority identified as white (84.3%),

Table 1 Associations between ill-fitting condoms and selected problems experienced during condom use among 436 men*

Selected problem	Does it fit okay?		PR (95% CI)	p Value
	No (195 = 44.7%)	Yes (241 = 55.3%)		
	% (n)	% (n)		
Condom breakage	9.2 (18)	3.3 (8)	2.78 (1.24 to 6.26)	0.01
Condom slippage	12.3 (24)	5.0 (12)	2.47 (1.27 to 4.81)	0.006
Difficult for her to orgasm	18.5 (36)	9.5 (23)	1.93 (1.18 to 3.15)	0.007
Difficult for me to orgasm	36.4 (71)	19.1 (46)	1.91 (1.39 to 2.62)	0.001
Irritated her vagina	11.3 (22)	6.6 (16)	1.70 (.92 to 3.14)	0.09
Irritated my penis	10.3 (20)	2.1 (5)	4.94 (1.89 to 12.93)	0.001
Reduced her pleasure	29.2 (57)	20.7 (50)	1.41 (1.01 to 1.96)	0.04
Reduced my pleasure	61.5 (120)	39.8 (96)	1.54 (1.28 to 1.87)	0.001
Interfered with erection	25.6 (50)	14.1 (34)	1.82 (1.23 to 2.69)	0.002
Lost erection	33.8 (66)	18.7 (45)	1.81 (1.30 to 2.52)	0.001
Removed condom early	17.4 (34)	9.1 (22)	1.91 (1.16 to 3.15)	0.01
Condom dried out during sex	22.6 (44)	12.1 (29)	1.86 (1.21 to 2.86)	0.004

*Reported for the last time a condom was used during penile–vaginal sex. PR, prevalence ratio.

with 5.2% identifying as black/African-American, 4.3% identifying as Asian and the remainder identifying as members of other races. Nearly three-quarters (73.9%) lived in the USA; however, a proportion resided in the UK (7.5%) and Canada (3.4%), with the remainder living in 25 different countries. Four men did not answer the questions pertaining to condom length and width, leaving $n = 436$. Of these, 44.7% reported ill-fitting condoms. The mean age of men reporting ill-fitting condoms was 28.2 years versus 30.7 years for those not reporting ill-fit ($t = 2.59$, $df = 434$, $p = 0.01$). Men reporting US residence ($n = 321$) were less likely to report ill-fit (42.1%) compared with 115 men reporting residence in other nations (52.2%; $p = 0.06$). Men reporting alcohol use during last sex ($n = 190$) were more likely to report ill-fit (50.5%) compared with 246 men not reporting alcohol use (40.2%; $p = 0.03$).

Table 1 displays bivariate findings comparing the 44.7% of the men reporting ill-fitting condoms with the 55.3% not reporting this problem. As shown, 11 of the 12 outcomes were significantly associated with ill-fitting condom use. With the exception of reports of irritation of the partner's vagina, men reporting ill-fitting condoms were more likely to report breakage, slippage and each of the other nine outcomes. Table 1 also displays the multivariate findings. As shown, the same 11 outcomes remained significant.

Table 2 Adjusted* associations between ill-fitting condoms and selected problems experienced during condom use among 440 men†

Selected problem	AOR (95% CI)	p Value
Condom breakage	2.63 (1.10 to 6.26)	0.03
Condom slippage	2.67 (1.29 to 5.56)	0.008
Difficult for her to orgasm	1.92 (1.08 to 3.40)	0.036
Difficult for me to orgasm	2.32 (1.49 to 3.61)	0.001
Irritated her vagina	1.70 (.86 to 3.37)	0.13
Irritated my penis	5.00 (1.82 to 13.79)	0.002
Reduced her pleasure	1.56 (1.01 to 2.44)	0.049
Reduced my pleasure	2.38 (1.61 to 3.52)	0.001
Interfered with erection	2.02 (1.23 to 3.30)	0.005
Lost erection	2.28 (1.46 to 3.56)	0.001
Removed condom early	2.04 (1.14 to 3.65)	0.016
Condom dried out during sex	1.94 (1.15 to 3.28)	0.013

*Adjusted for men's age, whether they resided in the USA and the use of alcohol before sex.
†Reported for the last time a condom was used during penile–vaginal sex. AOR, adjusted odds ratio.

DISCUSSION

This is the first study using an event-specific analysis to examine the effect of ill-fitting condoms on several aspects of sexual functioning. Therefore, in addition to observing that men reporting ill-fit were substantially more likely to report breakage and slippage, we found evidence collectively suggesting that ill-fitting condoms may indeed diminish sexual functioning and pleasure during penile–vaginal sex (for both men and women). Moreover, the increased likelihood that men using ill-fitting condoms will remove condoms before sex ends constitutes another form of condom failure. Fortunately, it seems likely that these problems could be rectified through education programmes. Although the findings are limited by the validity of retrospective self-report and the possibility of experiment-wise error (from multiple comparisons), they emphasise the point that men and their female sex partners may benefit from public health efforts designed to promote the improved fit of condoms.

Key messages

- ▶ When men use condoms that do not fit correctly they may be prone to condom breakage and slippage.
- ▶ Ill-fitting condoms may be source of sexual dissatisfaction for men and, possibly, their female sex partners.
- ▶ The incomplete use of condoms (late application and/or early removal) may be more likely among men experiencing ill-fit.

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Contributors Study implementation and oversight was conducted by SAS and WLY. RAC, CAG, WLY and SAS each shared in the development of the questionnaire and the conceptualisation and writing of this manuscript. RAC performed the analyses.

Competing interests None.

Ethics approval Approval for the study was obtained from the Indiana University Institutional Review Board.

Patient consent Obtained.

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