Two heads are better than one: the association between condom decision-making and condom use errors and problems

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ABSTRACT

Objectives: This exploratory study compared the frequency of condom use errors and problems between men reporting that condom use for penile–vaginal sex was a mutual decision compared with men making the decision unilaterally.

Methods: Nearly 2000 people completed a web-based questionnaire. A sub-sample of 660 men reporting that they last used a condom for penile–vaginal sex (within the past three months) was analysed. Nine condom use errors/problems were assessed. Multivariate analyses controlled for men’s age, marital status, and level of experience using condoms.

Results: Men’s unilateral decision-making was associated with increased odds of removing condoms before sex ended (adjusted odds ratio (AOR) 2.51, p = 0.002), breakage (AOR 3.90, p = 0.037), and slippage during withdrawal (AOR 2.04, p = 0.019). Men’s self-reported level of experience using condoms was significantly associated with seven out of nine errors/problems, with those indicating less experience consistently reporting more errors/problems.

Conclusions: Findings suggest that female involvement in the decision to use condoms for penile–vaginal sex may be partly protective against some condom errors/problems. Men’s self-reported level of experience using condoms may be a useful indicator of the need for education designed to promote the correct use of condoms. Education programmes may benefit men by urging them to involve their female partner in condom use decisions.

The consistent and correct use of the male condom can be highly protective against the transmission of most sexually transmitted infections (STI).¹³ Unfortunately, evidence suggests that men experience multiple forms of errors and problems when using condoms.⁴⁻⁹ Moreover, the aetiology of these errors and problems has been under-studied. One particularly attractive hypothesis is that fewer errors and problems occur when condom use is the result of decision-making that involves the female sex partner. Past studies suggest that women are quite aware of the condom use say you have with the male condom.

Responstyle alternatives were provided on a four-point scale ranging from “none” to “quite a lot”.

Based on previous studies of condom use errors and problems,⁴⁻¹⁷ nine outcome variables were identified. These were erection loss while applying the condom and while using the condom, putting on after penetration and taking it off before sex ended, breakage, slippage during sex and during withdrawal, and problems with the “fit” and with the “feel” of the condom.

Data analysis

First, bivariate associations were assessed between the key correlate (mutual versus unilateral
decision-making) and the nine outcomes. Associations were assessed by prevalence ratios, their 95% confidence intervals (CI), and respective p values. Potential covariates were assessed statistically and two were associated with both the key correlate and at least one of the condom use errors and problems. These two were age and men’s level of experience using condoms. To control for these covariates, each outcome was then tested in a separate logistic regression model using forward stepwise entry. Because the variable representing men’s level of experience using condoms produced a highly skewed distribution this was dichotomised to compare those indicating “quite a lot” (73.6%) with the remainder. The models were used to calculate adjusted odds ratios (AOR), their 95% CI, and the corresponding p values.

RESULTS

Characteristics of the sample

The average age was 36.0 years (SD 9.0) with a range of 19 to 67 years. Just over one-third (34.9%) indicated that they were not currently married. Just over one-half (53.1%) indicated having completed at least a bachelor’s degree. The median annual income interval was US$50 000–75 000. Nearly three-quarters of the men (73.6%) reported having “a lot” of experience using condoms. Approximately one-third (28.5%) reported that they were not keeping condoms well lubricated during sex, touching condoms with sharp objects.

Bivariate associations

Table 1 displays the observed prevalence of the nine assessed condom use errors and problems stratified by whether condom use decisions were unilateral or mutual. Table 1 also displays results from the contingency table analyses. As shown, men making decisions unilaterally were more than twice as likely to report that condoms were removed before sex ended. Unilateral decision-makers were nearly four times more likely to report breakage and twice as likely to report slippage during withdrawal.

Multivariate associations

Table 2 displays the significant correlates from the regression models. As shown, men’s unilateral decision-making retained multivariate significance with early removal of condoms, breakage, and slippage during withdrawal. Compared with men using condoms on the basis of mutual decision-making, those making the decision unilaterally were approximately 2.5, 3.9, and 2.0 times more likely, respectively, to report these three errors/problems. Table 2 also shows that men reporting less experience using condoms were significantly more likely than their “experienced” counterparts to report seven of the nine selected errors/problems. The exceptions to this were applying condoms after sex had begun and breakage.

DISCUSSION

In controlled, event-specific, analyses men’s unilateral decision-making to use condoms was associated with three important condom errors/problems. The association with condom breakage is particularly important as it has not previously been investigated as a potential cause of breakage. Similarly, associations with early removal and slippage during withdrawal are important and represent further novel findings. That men making condom use decisions unilaterally were more likely to remove condoms early is probably a consequence of their partner’s lack of interest in using condoms. Slippage during withdrawal is also relatively straightforward to explain given that female assistance in holding on to the rim during withdrawal may have been lacking as a result of their lack of investment in condom use from the beginning. Alternatively, the finding related to breakage is somewhat less intuitive. Potentially, men acting unilaterally may have made more mistakes that may culminate in breakage eg, re-using condoms, not keeping condoms well lubricated during sex, touching condoms with sharp objects.

Although the specific reasons for the observed associations warrant further research, this initial evidence provides a somewhat compelling case that female involvement in condom use decisions provides a protective effect relative to certain errors/problems. Of interest is the fact that mutual decision-making (ie female involvement) was not implicated as a potential cause for any of the nine errors/problems. Whether the decision was unilateral or mutual, however, was not important for the majority of the selected errors/problems, thereby suggesting that female involvement can only be beneficial but should not be viewed as a panacea when considering a broad range of errors/problems.

In the process of controlling for men’s self-reported experience with the use of condoms it became apparent that this measure was indeed robust. From an intervention perspective, this single assessment may have value as a strategy to trage less experienced men for targeted education designed to reduce their frequency of condom use errors/problems. Clearly, the prevalence of errors/problems in this relatively well-educated, high-income sample of men (spanning a broad age range) was

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**Table 1**

<table>
<thead>
<tr>
<th>Outcome*</th>
<th>% Unilateral* (n = 188)</th>
<th>% Mutual* (n = 470)</th>
<th>PR (95% CI)</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost erection while applying condom</td>
<td>9.1</td>
<td>5.3</td>
<td>1.72 (0.95 to 3.11)</td>
<td>0.07</td>
</tr>
<tr>
<td>Lost erection while using condom</td>
<td>10.2</td>
<td>6.6</td>
<td>1.54 (0.90 to 2.67)</td>
<td>0.12</td>
</tr>
<tr>
<td>Applied condom after sex began</td>
<td>20.4</td>
<td>24.8</td>
<td>0.62 (0.60 to 1.14)</td>
<td>0.24</td>
</tr>
<tr>
<td>Removed condom before sex ended</td>
<td>12.8</td>
<td>5.7</td>
<td>2.24 (1.33 to 3.79)</td>
<td>0.002</td>
</tr>
<tr>
<td>Condom broke</td>
<td>3.2</td>
<td>0.8</td>
<td>3.81 (1.09 to 13.34)</td>
<td>0.02</td>
</tr>
<tr>
<td>Condom slipped off during sex</td>
<td>4.8</td>
<td>3.0</td>
<td>1.63 (0.72 to 3.70)</td>
<td>0.24</td>
</tr>
<tr>
<td>Condom slipped off during withdrawal</td>
<td>12.8</td>
<td>6.4</td>
<td>2.02 (1.21 to 3.36)</td>
<td>0.006</td>
</tr>
<tr>
<td>Had a problem with “fit”</td>
<td>11.8</td>
<td>8.7</td>
<td>1.36 (0.83 to 2.22)</td>
<td>0.22</td>
</tr>
<tr>
<td>Had a problem with “feel”</td>
<td>33.2</td>
<td>30.4</td>
<td>1.09 (0.65 to 1.39)</td>
<td>0.48</td>
</tr>
</tbody>
</table>

CI, Confidence interval; PR, prevalence ratio.

*All measures apply only to the last time a condom was used for penile–vaginal sex.
condom failure. Whether these men were using condoms to prevent pregnancy versus STI was not assessed; however, it is important to note that the “last time” a condom was used may not have been with the spouse (implicating the prevention of STI acquisition as a possible motive for use). The findings are thus also limited on the basis of the generic assessment of condom use errors and problems rather than an assessment stratified by casual versus main partner types.

CONCLUSIONS
Findings suggest that female involvement in the decision to use condoms for penile–vaginal sex may be partly protective against some condom errors/problems. Men’s self-reported level of experience using condoms may be a useful indicator of the need for education designed to promote the correct use of condoms. Education programmes may benefit men and women if they encourage women to become involved in condom use decisions.

Competing interests: None declared.

Contributions: RC participated in the conception of the study and drafting/revisions of the manuscript. WLY, SAS and CAG contributed the study and cleaned the dataset, and provided guidance to RC in the acquisition funding for the study, conceived the methodology for data collection, implemented the study, cleaned the dataset, and provided guidance to RC in the conception of the study and drafting/revisions of the manuscript. WLY, SAS and CAG all participated in the conception of the study, analysis and interpretation of the data, drafting/revision of the manuscript.

REFERENCES


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