RUNNING HEAD: Reasons to Use Condoms

Reasons People Give for Using (or not Using) Condoms

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ABSTRACT

Study participants (N = 358) were asked about 46 reasons that have been suggested for why people use or do not use condoms. Participants were asked which of these reasons motivated them when they were deciding whether to use condoms in 515 sexual relationships. Participants were classified into one of three roles based on their HIV status and the status of each sexual partner: HIV+ people with HIV- partners; HIV- people with HIV- partners; and HIV- people with HIV- partners. Motivations were looked at in the context of each of these roles. Of the 46 reasons, only 16 were selected by at least 1/3 of the participants, and only six were selected by at least half. Frequently reported reasons primarily concern protecting self and partner from STDs including HIV. Less frequently reported reasons involved social norms, effects of condoms on sex, and concern for the relationship. These findings have implications for clinical interventions.

INTRODUCTION

It has been estimated that in the U.S. there were over two million cases of Chlamydia, 800,000 cases of gonorrhea, 55,000 cases of syphilis, and over 41,000 new cases of HIV by sexual transmission in 2014 (1). Consistent condom use is the most effective preventive and cost-efficient method against sexually transmitted diseases (STDs). A partial alternative to condom use, PrEP has become available in recent years (2). PrEP is a relatively effective alternative to condoms for protection against HIV (3). It is a medication intended to be taken every day that prevents HIV from establishing infection within the body (2) and is related to the medication used to help keep the virus under control for those with HIV (3). Currently about 30,000 people in the US may be taking PrEP medication to prevent HIV (4),

this is relatively small when looking in comparison to how many new cases of HIV occur each year. Its primary drawback at this time is that it costs about \$1200 per month when used in this way, although many insurance companies will help cover some of the cost (5). It is less effective than properly used condoms and provides no protection from other STDs, because of this many doctors suggest to still use condoms in conjunction with the medicine (3, 6, 7). Furthermore, the expense of PrEP makes it infeasible for the general population even for low income persons in serodiscordant relationships. Thus condoms remain an important resource to reduce the transmission of HIV and other STDs. While risk behaviors have been reduced since the beginning of the AIDS epidemic (6, 7), nevertheless the continuing high incidence of sexually transmitted infections is evidence of inconsistent condom use. The tendency for people to use condoms inconsistently or not at all is a significant problem for public health.

In this study we systematically examine 46 possible reasons, organized under five general motivations, which people may have for using or not using condoms with sex partners. We ask reasons associated with *specific* sex partners in order to capture reasons which may differ across partners. In addition, we investigate the extent to which reasons differ by own and partner disease status. In order to simplify this discussion, we refer to HIV+ (pronounced "HIV positive") persons as Role 1s, HIV- ("HIV negative") persons with HIV+ partners as Role 2s, and HIV- persons with HIV- partners as Role 3s.

REASONS FOR USING CONDOMS

The continuing spread of HIV has led to continuing research examining reasons for condom use and nonuse. In most cases, research has focused on global reasons; that is, on *general* reasons for condom use or nonuse irrespective of partner. While some reasons

may be properly global, other reasons certainly depend on the partner and on the partner's known or suspected disease status. Only a few studies of condom use decisions explicitly identify the HIV status of study participants (8-10), while most do not test or collect HIV status data on participants. Also most studies do not discuss their participants' partners and their statuses. Some studies of HIV+ persons focus on assumed HIV- partners (8-14). We found no studies that explicitly studied HIV- persons with known HIV+ partners (our Role 2s).

In order to productively study behavior between partners with different disease characteristics, it is important to consider the multiple motivations that may be influencing condom use. There are a number of potential motivations that may be behind the reasons that persons may give for using or not using condoms.

Self protection. A majority of studies addressing reasons for using a condom can be understood to invoke the motivation of self protection against HIV and other STDs. The self protection motivation is highlighted in theories such as the health belief model (15, 16), the theory of reasoned action (17, 18), theory of planned behavior (19), social cognitive theory (20), diffusion of innovations theory (21), stages of change or the transtheoretical model (22, 23), the AIDS-risk reduction model (24), harm reduction theory (25), and protection motivation theory (26). Sometimes investigators explicitly ask participants whether their reason for condom use is to protect oneself (27). More often, however, self protection is taken as an implicit assumption when researchers ask about knowledge or perception of condom efficacy (27-38).

Partner protection. Partner protection is another potential motivation for condom use. This motivation is particularly pertinent for Role 1 HIV+ persons with HIV- partners, but it may be relevant to any person who has opportunities to become infected and thus may potentially serve as an intermediary to transmit disease from one partner to another. Most

of the prominent theories of risk discussed above make no explicit acknowledgement of an independent partner protection motivation. Instead some theories address this issue as an external social norm (see below). An altruistic or caregiving motivation (39-41) may lead a person to protect a partner they feel emotionally close to. An altruistic concern to protect the partner has been studied by several researchers who focus primarily on the HIV+ population (9, 10, 12, 13).

Relationship. We have already seen that protection of self from the partner and protection of the partner from self are reasons for condom use. Sexual activities that can transmit HIV are joint activities, so there are two persons who can be at risk. The dyadic nature of sexual relationships means that participation and consent by the partner are important elements in condom use/nonuse decisions. Condom use and the discussion of condom use can convey messages about the relationship. In research studies of Role 3 samples whose HIV status is known to be negative, or unknown and presumed to be negative, condom use has been observed to be lower for main or primary partners than for secondary or casual partners (42-44), lower for long-term partners than short-term partners (45-48), and lower for close partners than non-close partners (49). Faith in the partner's honesty has been suggested to lead to a lowered sense of susceptibility that underestimates what risk an objective observer might estimate (50, 51). On the other side, it is more common for HIV+ persons to use condoms and disclose their HIV status with their primary partner rather than casual partners (14).

Most study samples are probably comprised largely of Role 3s, and results often suggest that participants tend to have a low level of concern for HIV and a higher concern for relationship issues. Many relationship reasons for condom nonuse examined in these studies have been associated with fear, apprehension, or concern: fear of the partner's reaction (29); fear that asking to use a condom could lead to partner distrust (28, 52); fear of

partner violence (52) and fear that suggesting a condom may lead to the loss of the relationship (8). Other related reasons for nonuse have been seen as influenced by the power that one sexual partner may have over another (53-56). Low power has thus been seen as a major barrier to reducing HIV risk (57, 58). The difference in relationship power may prevent some persons from successfully negotiating condom use because the partner either does not want to use or demands not to use a condom (27, 31).

Norms. Social norms are cited as a motivation for condom use in several prominent theories of risk: the AIDS risk reduction model (24), theory of planned behavior (19), and theory of reasoned action (17, 18). A number of researchers have underlined the importance of social norms in the prevention of sexual transmission of HIV among heterosexual (59-65) and especially MSM (men who have sex with men) populations (66-71), where a strong community effort has been reported to promote condoms out of an ethical concern to protect from transmitting HIV to others (8, 10, 38). In some cases such norms have been formulated into laws that hold those who are aware of their HIV+ status responsible to disclose and protect those who are HIV- from transmission (10).

In contrast, there are some countervailing norms that actively discourage condom use. For example, some persons report that their friends think condoms are inconvenient (27), that their religion prohibits condom use (31), or among males that it is the partner's responsibility to make the decision about condom use (10, 28). Condom use norms, while often promoted at the community level may be burdensome at the individual level. Persons report not conforming to the condom use norm because condoms are a "hassle" (27, 37), and because they do not carry condoms or condoms are not available at the time (28, 72, 73). Social recognition that one is involved in sexual activities can create embarrassment. Adhering to condom use norms can lead to embarrassment in carrying (50) or getting

condoms (30, 31, 33, 37). For some, the embarrassment norm is stronger than the condom use norm, while for others the condom use norm seems to be stronger (30).

Lust. In one sense, all of the reasons for condom use and nonuse that we have described can be seen as secondary issues in the sexual transmission of HIV. The primary motivation leading people to have sex is that sex is a pleasurable and relationship-affirming activity, with lust as an underlying motivation (74). Lust is a motivation concerned directly with the sexual response, often associated with a sense of urgency. Many reported objections to condom use seem to be related to anticipated reductions in pleasure and enjoyment (8, 27, 30-33, 50, 75), often through "ruining the moment" or "inhibiting spur of the moment sex" (8, 27, 38). Other commonly reported complaints are that condoms do not fit well or are too tight or small (27), they cause loss of erection (8), and cause awkwardness (38). Technical reasons have also been cited as reasons for use, such as a lack of confidence in own skill (37) or the perception that condoms are not efficacious (38). More general reasons for avoiding use of condoms are a dislike of condoms (76) or an image of condoms as effeminate (77).

There are certain limitations to the literature we have reviewed. First, most studies examine only one or a small number of reasons, so previous literature has given us little information on the relative importance of the many reasons for condom use or nonuse. Second, few of the reviewed research studies offer a differentiated view of relationships with attention to variations in serodiscordant or seroconcordant statuses within populations and across relationships. One study does analyze HIV+ participants and their view of responsibility when it comes to protecting sex partners, though there is no confirmation of partners' true status (10). Some studies of HIV+ persons distinguish between relations to HIV+ partners and relations with HIV- persons (9-13). However, we did not find studies of

condom use that compared HIV- persons with HIV+ partners to HIV- persons with HIVpartners.

Many interventions designed to increase condom use have been developed and implemented over the last 30 years since HIV became a global health concern. However, few of these interventions have focused on the HIV risk reduction motivations of the members of the target group members (78).

Of the 93 evidence-based interventions described by the CDC in 2015 (79), only 29 are geared to individuals. Of the 29 individually-focused interventions, 22 focus primarily on sexual transmission. Of these 22 interventions, all encourage safer sex practices using condoms. Detailed examination of these programs show that two specifically target HIV+ people with HIV- partners (or partners of unknown HIV status); four target HIV+ people with partners of unspecified status; one targets HIV- people with HIV- (or unknown) status; five target HIV- people with partners of unspecified status; two target people with negative or unknown HIV status; and eight use non-HIV-status eligibility criteria for participants and their partners, selecting, for example, people with a history of any STD. Though, as noted above, there are five general motivations for condom use or nonuse, it is hard to tell from program descriptions of the 22 promoted interventions related to condom use and sexual transmission which motivations are explicitly targeted for intervention. In the research reported below, we provide evidence on those motivations that sexually active persons themselves report as important.

Specifically, we examine the frequency with which participants report that they considered each of 46 reasons for condom use or nonuse. Because of the potential effect of HIV infection on within-relationship motivations, we distinguish and compare the reasons given by four types of relationship. We study Role 1/Role 2 relationships (between Role 1 HIV+ participants and their Role 2 HIV- partners). Role 2/Role 1 relationships (the same

relationships reported by HIV- Role 2 participants); Role 2/Role 3 relationships; and Role 3/Role 3 relationships. HIV+ partners with HIV+ partners are not included in this discussion.

METHODS

Participants were recruited in a study designed to better understand the role of relationship dynamics and sexual behaviors in the prevention or transmission of HIV. Eligibility included being over 18 years of age, having English speaking ability, being cognitively competent, having been sexually active with a partner in the previous three months, not being transgendered, and in the case of HIV+ participants not being diagnosed as HIV+ in the previous three months. The last criterion was imposed to protect against psychological anxiety and disorganization from a recent diagnosis that might compromise the ability to give informed consent.

For this study, 115 serodiscordant dyads were recruited together, and 139 HIV-persons were recruited because they had multiple sex partners. Dyads were referred through targeted mailings to HIV+ clients in a centralized database managed by the state department of health and informational flyers placed at HIV care sites. Multi-partner HIV-individuals were recruited through flyers posted and distributed at HIV testing sites; these participants were recruited to permit examination of reasons for condom use outside of serodiscordant relationships. A strength of this sampling design is that it provided a sample of Role 2 participants many of whom reported both Role 1 and Role 3 partners.

The sample for the analyses reported here consists of 109 Role 1/Role 2 serodiscordant dyads, all but one of whom were recruited together. In addition, 12 of the Role 2 participants described relationships with Role 3 partners and 112 Role 3 HIV-persons described relationships with other HIV- partners. Some of these relationships had

incomplete data and are omitted from analyses; most relationships with incomplete data involved oral sex only, where condom use is seldom considered.

Initial Screening and Interview Procedures

Interested potential participants called the study coordinator, who gave them a brief overview of the study, and screened them for eligibility. Serodiscordant dyads were interviewed separately but simultaneously. There was no requirement that dyads be either primary or long-term relationships; as a result, 17% of relationships were over 5 years in length, while some 20% were no more than one month in length, including five percent reported as "one night stands" (3% among Role 1s, 7% among Role 3s, and 12% among Role 2s whose sex partners were Role 3). Within the sample, 31% of participants were HIV+ by design of the study. Of the 218 participants reporting Role 1/Role 2 dyads, 63% were heterosexual and 31% were male (MSM), and 6% were both. Of the 132 Role 3 HIV-individuals reporting Role 3/Role 3 relationships, 94% reported heterosexual relationships only, while 5% reported male-male relationships only, and 2% reported both.

Participants were asked to name up to 10 sex partners, and some demographic and relationship information was collected about all partners. Participants were asked in detail about up to three of these relationships. Initially participants were asked in detail about three relationships, but early in the study this number was reduced to two because of respondent burden. The 109 Role 1 participants reported 127 relationships with HIV-partners, while the 109 Role 2 partners described 112 relationships with HIV+ partners and 12 Role 2 participants (originally Role 3 participants who reported at least one HIV+ partner who was not recruited into the study) reported 53 relationships with HIV- partners. The 112 Role 3 participants named 212 partners they believed to be HIV-. For those participants

recruited as dyads, special procedures were followed to guard against one participant coercing another to participate in the study (80).

Male interviewers interviewed only men; female interviewers interviewed men and women. Participants were told the purpose of the study, the risks/benefits of participation, the types of information to be collected, and the time required to participate. Participants were also told that they would be tested for HIV at the end of the interview. All individuals were encouraged to ask questions and were given a copy of the consent form. Study procedures were approved by a university institutional review board, and all participants gave separate informed consent.

Measurement

Sociodemographic information and attitude data for this report were collected via self-report, computer-assisted personal interview (CAPI) where the interviewer posed questions and recorded responses. Participants were asked the number of sex partners in the previous three months and were asked general and partner-specific attitudes and behaviors for up to three recent sex partners. Interviews generally lasted two to three hours, depending upon the number of sexual partners named. Participants were remunerated \$40.00 for completion. Parking or bus transportation costs were also reimbursed.

Reasons for condom use and nonuse. In order to understand motivations for condom use or nonuse, participants were asked, for up to three named sex partners, to remember the last time they had made a decision with each about using or not using a condom with the partner. For some participants, this occurred recently; for others, this decision was in the distant past and had become a habit. Participants were asked, "The last time you and [partner] made a decision about using condoms, did you think about...?"

followed by 46 reasons that are the subject of this report. To create this list, we drew on existing scales [citations omitted] and brainstormed additional items.

Most reasons were asked separately for each partner; some reasons, such as whether they knew how to use a condom or the reliability of condoms, were considered "global" reasons and were asked only of the first partner and were assumed to apply to all partners. Some items were asked or asked differently depending on the HIV status of the participant and the partner. For example, HIV+ participants were asked about giving HIV and not about getting HIV. Thus, HIV+ participants (and HIV- participants who named both HIV+ and HIV-partners) were asked about whether giving HIV would be shameful or would be God's will. Only HIV- participants were asked whether getting HIV would be shameful or would be God's will. Similarly, HIV- participants were not asked about giving HIV when talking about their relationship with their HIV+ partners. Reasons relating to pregnancy were only asked for heterosexual dyads. Finally, items about relationships were not asked about partners who were casual acquaintances or one night stands.

HIV testing. At the end of the interview, participants were given an OraQuick® mouth swab to test for HIV to confirm their self-reported HIV status. Any participant who seroconverted (came in identifying as HIV- but tested as HIV+) was given a referral for confirmatory HIV testing, post-test counseling, and care. All participants received CDC standard HIV counseling from an interviewer who had undergone training in HIV testing and counseling from the state Department of Health. Four individuals (3.7% of 109 HIV-participants in discordant dyads) seroconverted at the end of the interview. Each of these knew that the partner was HIV+ but did not know that they had been infected. There were five Role 2 HIV- participants who believed that the HIV+ partner was HIV-; none of these seroconverted. None of the multi-partner HIV- participants seroconverted.

RESULTS

The final sample contained 348 participants with data on condom use reasons. Counting only those relationships where participants were asked and gave complete responses about condom use, participants described 503 relationships. The 348 participants reported a mean age of 37.5 years (SD=11.8; range=18-75). Of the participants, 207 (59%) were male, with 77 (37%) describing 103 male-male relationships and 130 describing 199 male-female relationships. The 141 women described 201 heterosexual relationships. In terms of education, 41% had some education after high school (or GED). A large percentage of the sample self-identified as African American (63%) with the rest identifying as White (23%), Hispanic (<1%), other (3%), and multiple (9%). The marital status of participants was mostly not married (83%).

Results are presented in Table I for the most frequently cited reasons for condom use or nonuse. The first column lists the ten most often cited reasons across all participants. Other columns distinguish reasons by role match. Each column is divided into reasons cited in at least 50% of relationships described by participants in that role, and reasons cited in fewer than 50% of relationships but still among the ten most cited. Note, that of the 46 reasons participants were asked about, only 15 were named by at least a third of all participants who were asked, another seven were named by at least a third of participants in at least one role, and only 16 were among the ten most cited for any role.

Care must be taken to interpret the combined results because some reasons were not asked of all participants. For example, Role 1 HIV+ participants were not asked whether they thought about getting HIV. Of the HIV- participants, only those who said they thought one of their partners might be HIV+ were asked about giving HIV to another partner. Role 3 participants were not asked whether it would be shameful to give HIV.

The combined column shows that self protection and partner protection were the most active motivations. Two relationship reasons were also among the top ten reasons overall. The only major normative reason mentioned was that it would be shameful to give HIV. The participants were greatly concerned with reasons that have to do with HIV, but also almost as important were reasons that have to do with other STDs as well.

Examining our findings by role shows overlap in concerns. It is expected that an HIV+ person having sex with an HIV- person has some different concerns than an HIV- person with an HIV+ partner. An HIV- person with a presumed HIV- partner may be anticipated to have yet another set of motivations for condom use or nonuse.

The Role 1 reasons for condom use or nonuse were distributed across four motivations. These were partner protection and self protection (three reasons each), and concern for relationship and social norms (two reasons each). HIV reasons were of large concern to Role 1s. HIV (partner protection), giving HIV (partner protection), and whether it would be shameful to give HIV (social norm) are the top three most reported reasons. Eight of the reasons were cited in over 50% of the Role 1 relationships.

Role 2s' reasons to use or not use condoms in their relationships with Role 1s were also distributed across four motivations, but less evenly. Self protection was dominant (four reasons), followed by relationship (three reasons). They selected just one reason each for partner protection and lust (condoms affecting pleasure).

Role 2s showed considerably less consensus in their relationships with Role 3s than in other relationships. Only three reasons were cited in more than 50% of these relationships. Two ambiguous references, "HIV" and "getting HIV," were interpreted as a partner protection motivation for these Role 2s who were in a relationship with Role 3s HIV- partner, because the Role 2s were exposed to HIV through their relationship with a Role 1. The ten

most frequently cited reasons were three self protection, four partner protection, and one each for norms, relationship, and lust reasons.

Role 3s were most clearly and consistently motivated by self protection when deciding to use or not use condoms. Six of their 10 most reported reasons were concerned with protecting self from disease, although more of them were concerned with non-HIV diseases than with HIV. The next most frequent concern for Role 3s was relationship.

Results are presented in Table II for all of the 46 reasons that participants reported thinking about. They are grouped in the table by motivation that each reason is thought most to represent. In this list, "HIV" is listed separately under the self-protection and partner protection motivations. Unlike most prior research on reasons for condom use or nonuse, except for global reasons we did not ask how important a reason is in general—we asked participants whether they thought about the reason the last time they were making a decision about whether or not to use a condom with a particular partner. Some of the reasons were assumed to refer to all partners equally, and we asked these reasons only once. These reasons are denoted as global reasons ("G:") in the table. Only two of the most important reasons in Table I are global reasons: reliability of condoms (self protection) and whether it would be shameful to give or get HIV (normative).

DISCUSSION AND CLINICAL IMPLICATIONS

In our study, participants were asked about each of 46 reasons that they might have thought about when they were making a decision whether or not to use a condom with a particular sexual partner. The sample consisted of 348 participants who described 503 sexual relationships in which they had penetrative sex where condom use may have been considered. Participants were asked about reasons for condom use or nonuse that are seen

to reflect five motivations: self protection, partner protection, social norms, relationship, and lust.

While many reasons for using condoms were role specific, there were commonalities across roles as well. Self protection and partner protection were clearly the dominant motivations, with six self protection reasons and two partner protection reasons given in over a third of relationships. HIV- participants were most concerned about getting HIV and other STDs. HIV+ participants were most concerned about giving HIV, but were also highly concerned about being infected by other STDs, presumably because their immune systems were already compromised by HIV. The reliability of condoms was thought about by over a third of participants in all roles. It is notable that only 15 of the 46 reasons were selected by more than a third of all three HIV status roles and only 22 (nearly half of the total 46 asked about) were selected by a third of at least one of the status roles.

Many motivations suggested by previous research as important in the decision of whether to use or not to use a condom were not frequently selected by our participants in this study. Some research, mostly on adolescents and young adult samples, has suggested that technical reasons may be important, such as knowing how to use a condom or how easy or hard they are to use (37, 38). Such technical reasons have been important in such samples, but these reasons were not considered particularly important by our adult sample, being mentioned by 10% or less of participants.

Relationship power as a barrier to condom use was not supported in these data.

Participants indicated some concern in 20% of relationships that the partner might not listen, but only 15% were concerned that the partner might object (28, 52) or get angry if one wanted to use a condom (28, 29, 52). Among women these reasons were chosen by fewer than 33% (results not shown), a result that suggests that power may be of concern for a minority of women and a few men. A moderate number of participants were concerned

about the meaning of condoms in terms of how they represent caring in a relationship.

Thus, participants were much more likely to care about the partner's wishes than to be afraid of a partner's reaction.

In these data from an adult sample, embarrassment (50) was not selected as being a motivation to deter from condom use: whether it came to getting condoms (37), the act of buying condoms, what people would think if they saw one buying condoms (30, 31, 33) or just using condoms and issues they may present (30). Fewer than 12% of Role 1s and Role 3s reported that they were concerned about what friends and others thought about condoms. The Role 2s reported being concerned about their friends thoughts even less than Role 1s and 3s. Embarrassment and other social norm reasons were not relevant to our participants. Other analyses have also suggested that norms do not have much impact on condom use (81). Only three of ten normative reasons for condom use were named by at least a third of any role. Shame for giving HIV was of substantial concern reported by 70% of participants who were asked.

It is of note that study participants did not select many of the lust-related reasons for condom use or nonuse that are frequently mentioned by researchers and interventionists (8, 27, 30-33, 50, 75). For example, in this sample condoms affecting foreplay, erections, and condoms being disgusting were cited by fewer than a third of participants. Perhaps these reasons are more important for the active libidos of inexperienced adolescents, but they do not provide major barriers for this adult sample. Similarly, technical reasons like knowledge of how to acquire or use a condom were not of concern.

Clinical implications. Recent pharmaceutical developments have improved choices for clinical interventions. One that has developed as a limited alternative to condoms is the PrEP program, for preventing HIV transmission. Unfortunately, it is expensive and condoms are cheaper and more available (5). Another limitation of PrEP is that it is not

effective for other diseases besides HIV, so that most recommendations continue to suggest using condoms along with the program (3, 6, 7).

It may be of value to consider how various intervention strategies to improve condom use may be received depending on a person's HIV status and of the status of their partners. Differences in motivation indicated by differences in reasons selected for using or not using condoms suggest that public health interventions may have differential impact depending on the role of the targeted population.

Role 1 (HIV+ persons with HIV- partners)

As stated in the literature review, only 2 of the exemplary individual-level CDC prevention programs are explicitly targeted at HIV+ individuals with HIV- partners.

Nevertheless, initial preventive efforts are usually initiated one-on-one during post-test counseling. Results here suggest that it might be effective if such counseling included an exploration of the person's concern about the potential shame of infecting a partner.

Furthermore, the intervention may have a stronger impact if it is personalized toward each particular partner. Although shame is a global motivating factor, the protection of a particular partner may be best motivated by the person's caring for that partner. It may also be highly relevant that protecting the partner from infection of HIV also protects oneself from other STDs, which can be important in the context of a compromised immune system. When discussing prevention with a Role 1 person, our results might suggest giving a focus of how condoms show care for a partner and protect the partner from contracting the same chronic disease (12).

Our suggestions are based on the most common responses within our sample.

Although two-thirds of Role 1s think about potential shame infecting another, one-third do

not report thinking of shame. Of course, a competent counselor will attempt to find out what is important to the Role 1 individual and create and discuss only relevant issues, but the suggestions here may be helpful in guiding that discussion.

Role 3 (HIV- persons who report only HIV- partners)

Most of the 22 prevention programs endorsed by the CDC report focusing on HIVnegative individuals with undetermined status partners. Our results concur with most intervention programs that the primary focus should be on self protection for Role 3s. Role 3s report thinking slightly more about other STDs than about HIV, but HIV is still a major concern. Our Role 3s, all of whom reported multiple sex partners as a function of study design, showed a high concern about their partner's multiple partners and moderate concern for protecting their own partners. At the same time, Role 3s' lack of awareness of potential risk to the partner limits the scope of their concern for the partner. Relationship issues around caring, trust, and communication are an important potential avenue for intervention for 30-40% of Role 3s. Discussion about pregnancy with Role 3s might be productive, because pregnancy was reported to be of moderate concern, insofar as a goal of pregnancy can conflict with condom use. The only lust-related reason that was slightly important to role 3s was how condoms affect pleasure, but only a little more than a third reported this. Norms of condom use have a clearly secondary influence for Role 3s, but a fourth to a third at least think they are supposed to use a condom and anticipate shame at getting infected with HIV.

Because one out of eight people with HIV are unaware they are infected (1) and because a significant number who do know their status do not disclose it to the partner because of fear of being rejected (14, 82), there is a serious risk to having a sex partner of

unknown HIV status. One may argue that a major element in all HIV programs is to convince Role 3 clients that they are really Role 2s. Our results show that Role 3s who do not *think* that they have an HIV+ partner have consistently lower levels of concern about HIV than Role 2s, although they have higher levels of concern about other STDs. For those Role 3s who are complacent about the risk of disease, it would probably be a beneficial approach to emphasize that a partner who could give them one STD could also give them HIV, and that the partner might not be inclined to reveal the information.

Role 2/1 (HIV- persons in relationships with HIV+ partners)

There do not seem to be prevention programs explicitly targeted at Role 2s among exemplary CDC prevention programs. It is clear that Role 1/Role 2 relationships are more complex than Role 3/Role 3 relationships in terms of the variety of motivations operating. A prevention program directed at Role 2s should be similar to one for Role 3s because they report thinking about many of the same reasons and most Role 3s will not know they are actually Role 2s. Nevertheless, this possibility can be successfully communicated, then there are additional intervention strategies that can be invoked. For Role 2s it is important to emphasize the many consequences to the partner as well as to the self of not using a condom. Role 2s should be reminded to use condoms not only to protect themselves from HIV and other STDs, but also to protect any HIV- partners from HIV and any HIV+ partners from non-HIV STDs. Relationship issues are important for aware Role 2s. Interventionists could emphasize how using a condom shows one's caring for the partner. By providing Role 2s with the knowledge that Role 1s are most worried about giving HIV to someone, and that they would feel ashamed if they did, the Role 2s can be encouraged to spare their HIV+ partner this shame.

A faith-based approach might be successful for a large minority of Role 2s, although this is a complex issue. There is a tendency for many Role 2s to be fatalistic about their risks (30% thought that getting HIV would be God's will), but there is another 16% who think about whether God would protect them. Although it is possible that they mean that God will protect them. It may be useful to raise the question *whether* God will in fact protect them.

Role 2/3 (HIV- persons with HIV+ partners in relationships with HIV- partners)

Role 2s in a relationship with a Role 3 show different reasons compared to their relationships with a Role 1. Their choice of reasons indicates their awareness that they can transmit disease in both directions. They are still heavily motivated by self protection, but their concern about getting other STDs is more like a Role 3. The 33% who thought about protecting another partner are certainly expressing their concern for the HIV+ partner.

Clinically, it may be best to emphasize protecting themselves from STDs like in the Role 3 intervention. Those Role 2s who are not monogamous with the HIV+ partner are aware of themselves as a vector of STD infection to that partner. It would be wise to remind them of their STD threat to their Role 1 partner.

These Role 2s are equally aware of the threat they pose to their HIV- Role 3 partners. Thus they show high concern about HIV and the potential shame from transmitting it. It is important with these Role 2s to remind them that HIV symptoms do not appear for three months after contracting it, so they should be concerned about the possibility of passing it to anyone who is HIV- before they may be aware of their own infection. Because multiple sex partner Role 2s have the greatest current potential of transmitting HIV to others, this is the group that most needs the importance of condom use emphasized.

There are a number of limitations to this study. The study did not recruit women who had sex with women (WSW), nor did we include in our analyses those relationships that reported only oral sex, as this was a study of condom use. Although this paper analyzes what reasons participants thought about when deciding whether or not to use a condom, it does not explore the content of those thoughts, or if the reason elicits a direction for condom use or nonuse or if it is ambiguous. In addition, we were unable to capture the decision at the moment it was made, but had to help people try to recapture and report information that was in some cases years in the past.

This study contributes a few unique elements to understanding what people consider when they decide if they will use or not use condoms. First, in this study we distinguish roles based on the HIV status of both participants and their partners. We also measure most reasons as they differ among partners. Interventions that treat all condom use reasons as global may create resistance among clients who make distinctions in their attitudes and behaviors toward multiple sex partners. Second, we attempted to explore a relatively comprehensive set of reasons to use condoms. Thus our results make clear that many potential reasons are of concern only to small subsets of the population. Our emphasis here has been on messages that will have broad appeal to the maximum number of people within each role. At the same time, prevention workers may find knowledge of the less frequently selected messages also useful. It may be that some uncommon reasons may be important for small subsets of clients if they can be identified.

Ethical approval: All procedures performed involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments of comparable ethical standards. IRB

approval included a waiver of consent for named partners who were not themselves interviewed under condition that that their identifying information be treated with the same confidentially protections as interviewed participants.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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Table I. Most Cited Reasons for Condom Use or Nonuse, by HIV Status Role

		by the Otalus in		
Combined*	Role 1 with Role 2	Role 2 with Role 1	Role 2 with Role 3	Role 3 with Role 3
Shameful to give HIV 69.7% (norms)	HIV 78.7% (part prot)	HIV 69.6% (self prot)	Condoms protecting you from diseases other than HIV 58.5% (self prot)	Condoms protecting you from diseases other than HIV 72.5% (self prot)
Giving HIV 69.5% (part prot)	Giving HIV 74.5% (part prot)	Getting HIV 64.3% (self prot)	Other STDs 58.5% (self/part prot)	Other STDs 63.0% (self prot)
Condoms protecting you from diseases other than HIV 66.6% (self prot)	Whether it would be shameful to give HIV 68.8% (norms)	Condoms protecting you from diseases other than HIV 63.4% (self prot)	Whether or not partner could be sleeping with someone else 52.8% (part prot)	HIV 58.3% (self prot)
HIV 64.6% (self/part prot)	Condoms protecting partner from diseases other than HIV 65.1% (part prot)	Using a condom shows partner cares about you 63.4% (relationship)	HIV 43.4% (part prot)	Getting HIV 58.3% (self prot)
Getting HIV 58.1% (self prot)	Condoms protecting you from diseases other than HIV 63.0% (self prot)	Partner wanted to use a condom 50.0% (relationship)	Getting HIV 43.4% (self prot)	Condoms protecting partner from diseases other than HIV 55.9% (part prot)
Other STDs 55.9% (self prot)	Partner wanted to use a condom 59.1% (relationship)	Condoms affecting pleasure 48.2% (lust)	Condoms protecting partner from diseases other than HIV 41.7% (part prot)	Whether or not partner could be sleeping with someone else 51.2% (self prot)
Condoms protecting partner from diseases other than HIV	Other STDs 52.0% (self prot)	Other STDs 45.5% (self prot)	Condoms affecting pleasure 37.7%	Wanting to protect another partner 50.8%

53.7% (part prot)	_		(lust)	(part prot)
Partner wanted to use a condom 46.5% (relationship)	Whether using condoms shows how much you care about partner 51.2% (relationship)	Whether using condom shows how much you care about partner 43.8% (relationship)	Getting (her) pregnant 37.5% (relationship)	Getting (her) pregnant 46.6% (relationship)
Condom shows partner cares 42.7% (relationship)	Whether you are supposed to use a condom 43.3% (norm)	Condoms protecting partner from diseases other than HIV 41.3% (part prot)	Shameful to give HIV 33.3% (norms)	Reliability of condoms 43.0% (self prot)
Whether or not partner could be sleeping with someone else 41.0% (self prot)	The Reliability of Condoms 40.4% (self prot)	The reliability of condoms 38.5% (self prot)	Wanting to protect another partner 33.3% (part prot)	Shameful to give HIV 40.0% (norms)

^{*} Percent of those who were asked about the reason who reported thinking about the reason.

Table II. Reasons for Condom Use

rable in reasons for condem cos					
	Role	Role	Role	Role	All
	1	2	2	3	roles
Self Protection		HIV-/+	HIV-/-	HIV-/-	
Condoms protecting you from diseases other than HIV	63.0%	63.4%	58.5%	72.5%	66.6%
HIV		69.6	43.4	58.3	64.6
Getting HIV		64.3	43.4	58.3	58.1
Other STDs	52.0	45.5	58.5	63.0	55.9
Whether or not P could be sleeping with someone else	29.3	29.5	52.8	51.2	41.0
G: the reliability of condoms	40.4	38.5	30.0	43.0	40.4
G: Getting HIV is God's will		30.3		10.1	19.7
G: God protecting you from disease	15.7	23.8	0.0	13.4	17.0
That you couldn't get HIV		6.2	20.8	14.3	12.8
, ,					
Partner Protection					
HIV	78.7				
Giving HIV	74.5		25.0		69.5
Condoms protecting P from diseases other than HIV	65.1	41.3	41.7	55.9	53.7
Wanting to protect another partner	22.0	23.8	33.3	50.8	32.8
That you couldn't give HIV	9.4		25.0		14.5
G: giving HIV is god's will	4.6		0.0		4.1
Social Norms					
G: Whether it would be shameful to give HIV	68.8		33.3	40.0	69.7
Whether you are supposed to use a condom	43.3	34.8	20.8	28.0	32.6
Whether you or P actually had a condom	26.0	34.8	24.5	36.5	32.2
G: Whether it would be shameful to get HIV		28.4	100.0	32.8	31.9
G: Whether you are the sort of person who uses a					
condom	29.4	22.9	20.0	30.7	27.5
G: Condom implies that someone has HIV	11.0	9.2	10.0	10.5	10.2
What people you know think about condom use	11.0	6.2	7.6	11.4	9.7
G: Condoms being embarrassing or awkward to get	4.6	6.4	0.0	5.3	5.3
G: What people would think of you if someone saw you			-	-	-
buying condoms	3.7	4.6	0.0	3.5	3.8
Condoms being embarrassing to use	1.6	2.7	0.0	1.9	1.8

Relationship	Role 1 HIV+/-	Role 2 · HIV-/+	Role 2	Role 3 HIV-/-	All roles
P wanted to use a condom	59.1%	50.0%	30.2	41.2%	46.5%
Using a condom shows P cares about you	37.8	63.4	28.3	38.4	42.7
Whether using condom shows how much you care	07.0	00.4	20.0	00.4	72.1
about P	51.2	43.8	22.6	34.1	39.4
Getting (her) pregnant	22.9	27.0	37.5	46.6	37.2
What condoms say about trust	33.1	37.5	28.3	33.6	33.8
Whether you wanted a baby	24.1	24.3	32.5	34.0	30.0
Whether P would listen if you brought up using a					
condom	37.0	29.5	26.4	28.4	30.6
Wanting to be in control	18.1	24.1	9.4	22.3	20.3
Whether using condoms says about strength of					
relationship	16.5	20.5	11.3	20.4	18.5
Wanting to keep P from knowing about another partner	6.3	12.5	13.2	28.4	17.7
Whether P would object if you wanted to use a condom	22.0	9.8	13.2	14.7	15.3
How easy or hard it was to bring up using a condom	13.4	12.5	3.8	13.7	12.3
P getting angry if you wanted to use a condom	8.7	8.9	17.0	14.7	12.1
Angry if P wanted to use a condom	5.5	2.7	57	8.5	6.2
Lust (romance)					
Condoms affecting pleasure	40.2	48.2	37.7	36.5	40.2
Condoms affecting romance	33.9	33.9	28.3	31.3	32.2
Condoms affecting foreplay	21.3	31.2	18.9	20.8	23.1
Condoms affecting erection	24.4	26.8	13.2	16.1	20.3
G: Condoms being disgusting	9.2	10.1	20.0	2.6	7.6
0 0					
Technical					
G: Actually knowing how to use the condom	12.8	6.4	0.0	12.31	10.2
G: How easy or hard condoms were to use	10.1	8.3	10.0	7.9	8.8
Number of participants	109	109	12	118	348
Number of relationships described	127	112	53	211	503
Note: * nc 05: ** nc 01: *** nc 001					

Note: * p<.05; ** p<.01; *** p<.001
"G:" refers to reasons asked only once of study participant. All other items were asked about each partner.

[&]quot;The last time you thought about whether or not to use a condom, did you think about ...?" ("P" is "partner")