

Female condom acceptability in urban India: Examining the role of sexual pleasure

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Abstract

This qualitative study examined the acceptability of female condoms in urban India, with a focus on sexual pleasure. We conducted focus group discussions with 50 women and 19 men, as well as a small number of individual interviews with women ($n=3$), in Chennai and New Delhi. Perceived benefits of female condoms included protection against unintended pregnancy and sexually transmitted infections, increased sense of empowerment for women, and simple clean up. The most common drawback was reduced sensation. Participants suggested structural changes to the female condom to ease insertion and use. Consent and privacy were discussed as increasing sexual pleasure. Pleasure should be acknowledged in design and education efforts to increase female condom use.

Keywords

contraception, female condom, India, sexual health, women's health

Introduction

Among the various available contraceptive barrier methods, female condoms are under-utilized in most contexts, particularly in developing countries (Welbourn, 2006). The female condom is a highly effective contraceptive method that can be inserted vaginally to reduce the risk of both pregnancy and sexually transmitted infections (STIs) (Hoffman et al., 2004). The limited literature focused on the acceptability of female condoms in India has focused on sex workers almost exclusively (Singh and Deshpande, 2013) and has not addressed sexual pleasure (Smita et al., 2005). When female condoms are introduced in traditionally patriarchal

cultures, price is generally reported as a concern, as well as the lack of trust if women are the ones to introduce it to their partner (Koster

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et al., 2015). However, when women within these cultures are asked their views on acceptability, they tend to prefer the female condom due to the benefits it offers. As female condoms are typically used by women and can be placed in the vagina up to several hours before intercourse, women report feeling empowered, as they do not need to wait for male partners to provide protection or to negotiate wearing a condom (Francis-Chizororo and Natshalaga, 2003). One of the more frequently expressed benefits of the female condom that women prefer is its ability to reduce the risk of a range of STIs due to the coverage offered both inside and outside of the vagina and on parts of the vulva (Francis-Chizororo and Natshalaga, 2003; Mahlalela and Maharaj, 2015; Wang et al., 2016).

Although acceptability is widely discussed with the usage of the female condom (Smita et al., 2005), discussions of sexual pleasure in relation to the female condom are less common. Overlooking women's sexual pleasure contributes to a singular focus on men's experiences in the extant literature regarding sexual pleasure and the female condom (Francis-Chizororo and Natshalaga, 2003). Sexual pleasure is important for health, as well as relationships, in that it is linked to facilitating stronger bonds of emotional intimacy (Bojko et al., 2010). In most academic literature, sexual pleasure is often undefined or assumed to be equivalent to an absence of dysfunction (Pavelka, 1995). We rely on one of the few definitions available, that sexual pleasure refers broadly to the "positive feelings that arise from sexual stimuli" (Abramson and Pinkerton, 1995). Sexual satisfaction is similarly defined as "the affective response arising from one's subjective evaluation of the positive and negative dimensions associated with one's sexual relations" (Lawrance and Byers, 1995).

Henderson et al. (2009) have described socioecological levels of sexual satisfaction correlates as individual characteristics, intimate relationships, and social networks/status. Higher levels of sexual satisfaction have been associated with improved physical and

psychological health (Scott et al., 2012), overall well-being (Dundon and Rellini, 2010), and quality of life (Davison et al., 2009). In spite of the numerous connections of sexual pleasure and satisfaction with health, there remains a dearth of contraception research addressing women's sexual pleasure (Higgins and Hirsch, 2008; Moore and Helzner, 1997). One contributing aspect is the myth that women do not have sex for pleasure, which is prevalent in India as well as Western contexts (Bojko et al., 2010; George, 1998; Higgins and Hirsch, 2008).

Findings that men and women report sexual satisfaction with the female condom are an encouraging factor for health promotion efforts that seek to promote its continued use (Francis-Chizororo and Natshalaga, 2003; Wang et al., 2016). Some design aspects of the female condom may enhance pleasure; for example, the outer ring may increase pleasure by rubbing against the clitoris (Philpott et al., 2006). Conversely, the external portion of the female condom has also been found to decrease pleasure by covering the vulva and reducing sensation (Buck et al., 2005). Women in previous studies also suggested that the lubrication provides added comfort and the strong material prevent them from worrying about the condom tearing, with these aspects of female condom reportedly enhancing women's sexual pleasure (Dias et al., 2006). However, these studies were not specifically focused on sexual pleasure and were not based in India, which is unique in relation to sexuality in couples, as well as for women's right to sexual pleasure (George, 1998). Men are often more dominant over women in India regarding sexuality decision making (Yadav et al., 2010). Religion in India contributes a unique influence on sexuality and contraception decisions (Sharma and Pasha, 2011). These factors also contribute to a preference for sons (Aeri and Passi, 2014). Contraceptive knowledge varies (especially for long-acting reversible methods), but is generally higher than rates of use (Aeri and Passi, 2014; Makade et al., 2012).

This study aims to explore the views of Indian women and men who participated in a

brief intervention using the female condom on their experiences in relation to sexual pleasure, sexual satisfaction, and their overall acceptability. Men's experiences with sexual pleasure while using the female condom may increase uptake; if the female condom adds to sexual pleasure for men, there may be a higher likelihood of use. We included women who were and were not involved with sex work to ensure a broad range of comfort levels in discussing sexuality. This also allowed us to examine differences between these groups to connect with prior research that addressed either of these populations but not both.

Methods

In order to explore both northern and southern urban contexts of India, qualitative data were collected in New Delhi and Chennai. We conducted separate focus group discussions (FGDs; 7 groups) with 50 women and 19 men to explore their experiences with the female condoms after using them. FGD questions focused on participants' perceptions before female condom use, experiences using female condoms, suggestions for modification, and relationship of the female condom and pleasure. We also conducted individual interviews ($n=3$) with a small number of women, to have more in-depth discussions about their experience and thoughts of their partners about having used the female condom. This small number of interviews was used to confirm emergent themes from FGDs, given the sensitive nature of discussing the topic in a group setting. Interviews and FGDs were conducted by sexual health researchers with prior experience in India. FGDs and interviews were conducted in Hindi (New Delhi) or Tamil (Chennai), with translation provided by local partners.

We used purposive sampling to recruit participants, including women who engaged in sex work, as well as persons with varying levels of education. Participants were selected through partnering organizations in Chennai and New Delhi. The Self-Employed Women's Association (SEWA) in Delhi is a trade union focusing on community-based organizing of

workers. Nirangal is a human rights-based advocacy organization based in Chennai. Through Nirangal, we worked with an association of women involved in sex work to incorporate a range of comfort levels in discussing sexuality. All protocols were approved by the institutional review board of Indiana University.

In order to be eligible to participate, individuals confirmed that they were 18 years of age and older, living in either New Delhi or Chennai for at least 1 year, currently having penile-vaginal sex (within the last 6 months), and willing to use a female condom. Group leaders and community workers recruited participants via word of mouth. Verbal consent was received from each person to participate in the study due to sensitive nature of study and varying levels of literacy.

In an initial meeting, participants filled out a screening questionnaire. The screening questionnaire included demographic information, as well as questions regarding current sexual relationships. Participants were provided with a female condom (the FC2; The Female Health Company DBA and Veru Healthcare, 2017) and water-based lubricant to use before the interview or FGD. A silicone vaginal model was used to demonstrate proper insertion of the female condom; participants were encouraged to practice insertion on the model and to ask questions during the initial meeting. This also provided an opportunity for participants to experience what the female condom would look and feel like before and after insertion. Participants were provided with an information sheet including further instructions for female condom use.

Participants were compensated approximately US\$28 (1800 INR) in order to encourage participation in this sensitive type of study. All FGDs and interviews were audio recorded, translated into English, and then transcribed. We used multiple coders to analyze the transcripts using Dedoose online qualitative software (Dedoose, n.d.). They were analyzed thematically using inductive analysis, without a prior established theoretical framework (Thomas, 2006).

Table 1. Participant demographics ($n=65$, missing $n=7$).

	% (n)
Gender	
Woman	73.6 (53)
Man	26.4 (19)
Age ($x=32.7$)	
21–30	38.1 (24)
31–40	44.4 (28)
41–50	17.5 (11)
Number of children	
0	9.2 (6)
1	10.8 (7)
2	33.8 (22)
3	30.8 (20)
4+	15.4 (10)
Length of relationship	
≤ 5 years	30.8 (20)
≤ 10 years	21.5 (14)
≤ 20 years	38.5 (25)
≤ 30 years	9.2 (6)
Relationship satisfaction	
Extremely satisfied	32.3 (21)
Satisfied	63.1 (41)
Dissatisfied	1.5 (1)
Extremely dissatisfied	1.5 (1)
Sexual satisfaction	
Extremely satisfied	43.1 (28)
Satisfied	46.2 (30)
Dissatisfied	6.2 (4)
Extremely dissatisfied	0
Sexual frequency	
Daily	10.8 (7)
A few times a week	49.2 (32)
Once a week	16.9 (11)
Weekly	12.3 (8)
A couple times a month	7.7 (5)
Once a month or less	1.5 (1)

Findings

The FGDs ($n=7$) ranged in size from 5 to 12 participants, with a total of 50 women and 19 men. Female participants of women's groups in Delhi and Chennai were given two potential FGD times to attend; as such, the group sizes varied based on participants' availability. FGD and interview participants ($n=72$) ranged from

21 to 50 years old, with a mean age of 32.7 years (see Table 1 for participant demographics). The two groups in Chennai comprised women who engaged in sex work while living with their family (usually husband and children) ($n=19$). The groups in New Delhi were men who worked primarily as factory workers or were self-employed and women who were housewives or artisans ($n=50$). Although we compared results between participants engaged in sex work to those who were not, we did not find different themes. The three main domains that emerged were perceptions before and during use, the female condom's influence on pleasure and satisfaction, and recommendations for future female condom modification. These are summarized in Table 2 with their related FGD questions.

Perceptions

Most participants had not seen the female condom before, though some had heard of it:

I was always curious and I wanted to try the female condom out but I didn't even know how it will feel to use it. There is not so much information, even online on female condoms, so you know it exists somewhere but I have never really seen one or even heard of someone using one in my circle. (Woman, Interview)

A few participants mentioned the size of the female condom as surprising, especially their partners who had not experienced the demonstration:

Initially you do feel a little weird but then I told my wife what it was, and she was also nervous, "What did you bring home?" But I told her, "No, it is ok, it is used for safety ... and we can also use it like we have male condoms." (Man, New Delhi)

Insertion of the female condom was the most challenging part of the experience for most participants. "I found it difficult to squeeze it into [a figure] eight specifically because it was so heavily lubricated. It kept slipping so after a

Table 2. Key themes overview with discussion questions.

Themes and subthemes	Related discussion questions
Perceptions <ul style="list-style-type: none"> • Before use: heard of female condom • During use: insertion challenging • Liked that women “wear” it—connected to empowerment 	Before you used the female condom, did you have any impressions about it? Would you use the female condom again? Why or why not?
Pleasure and the female condom <ul style="list-style-type: none"> • Alleviates stress of unintended pregnancy and sexually transmitted infections • Feels better—lubrication • Reduced sensation through barrier (decrease pleasure through friction) also may increase duration of sex (increase pleasure) • Consent critical for pleasure and women’s control of the female condom increased their perceived power in consent 	What aspects of the female condom make sex more pleasurable? Less pleasurable?
Recommendations <ul style="list-style-type: none"> • Structure: slippage prevention, inner ring • Insertion mechanism • Enhancement: flavors, colors, smells 	If you were to redesign the female condom, what would make this pleasurable for you? What about for a partner?

while I was like, ‘I’m giving up’” (Woman, Interview). Beyond difficulties, pain was reported by some of the women. “[Releasing the inner ring upon insertion] is when it begins to hurt, as if a rubber band recoils” (Woman, Chennai). Although some had difficulty with insertion, it was the fear of breakage, slipping inside, or incorrect application that was commonly reported. “I was worried about it [upon insertion], but during penetration, it sat neatly. I think that it is merely a matter of getting used to the condom” (Woman, Chennai).

In comparing the female condom with male condoms, both men and women felt positively that women wore this barrier method. They reported that the material felt stronger and more durable than male condoms and they felt safer. “Best thing is that there is no fear of it tearing it” (Man, New Delhi). However, a number of participants voiced that sex feels better without barriers so the female condom would not be their chosen contraception. “It doesn’t feel as intimate. Even with respect to two hands, right? When you separate hands using a piece of cloth, it feels like there is an intrusion. It felt that way” (Woman, Chennai).

Participants voiced many reasons why they enjoyed using the female condom and would

like to use it again. Feelings of women’s empowerment or reducing men’s responsibility in contraception or condom application were common:

Sometimes the husband doesn’t get the condom or don’t want to use the condom and just want to go without it so this is good for us and our protection ... if he says no to use a male condom, I can say ok you dont use I will use. (Woman, New Delhi)

Some participants said they liked the ability to discard the barrier method and prevent contact with male ejaculate, for hygienic reasons and ease of clean up. According to one participant, “(t)he dirt factor also vanishes” (Woman, New Delhi). For those engaged with sex work, this helped them enjoy sex with their partners without disclosing their involvement in sex work:

Sometimes, the client would want rough sex, and that has caused a lot of pain. Wearing a female condom might not only remove all visible trace of ejaculate, but also as a thick barrier to protect against the force of penetration. It will not hurt to have sex with my partner, and therefore not arouse suspicion. Not worrying about these issues

is the first step towards enjoying guilt free and pleasurable sex. (Woman, Chennai)

Pleasure and the female condom

A dominant theme that came up in all discussions was that the female condom increased pleasure through alleviating stress related to the risks of pregnancy or STI transmission. As many female participants stated that their partners could not always be trusted to use a male condom (e.g. because of intoxication, wanting full sensation, and not having a male condom available), women's control over the wearing of the female condom reduced their stress and allowed them to enjoy the experience:

I would use it so that there is safety against diseases, and if my husband does not want to use the male condom I have the option of protecting myself against all problems ... I would for my safety and also males are lazy so it's better we put it on. (Woman, New Delhi)

Many participants stated that sex "felt better" with the female condom. This may be related to the type or quantity of lubricant already on the female condom, because many participants reported not usually using lubricant. "It is more pleasurable and slippery than a male condom" (Man, New Delhi). A few participants enjoyed how the female condom prolonged sex due to the use of a barrier method, which increased their pleasure. "You can go on for at least 20 minutes which is more satisfactory for us. There is no scare and this makes it pleasurable for me" (Woman, New Delhi). This participant may be referencing a fear of a male condom tearing after prolonged sex with diminishing amounts of lubrication. Some men also enjoyed the experience more than with a male condom because the female condom is not worn tightly on the penis. The barrier and thickness of the material may reduce sensation (which for some may be a drawback, for others it's beneficial by prolonging sex) but the design enhances sensation by allowing for more movement of the female condom on the penis compared to the male condom. A smaller number of participants

reported that their partner could feel the inner ring and this caused friction, which caused pain or discomfort for some. "After a point, when the penis hit the inner ring too often, my partner wanted it gone" (Woman, Chennai).

Additionally, consent from both partners was emphasized by many of the participants, particularly women:

Sexual pleasure starts from our hearts; if we are happy and then we have sex, it feels amazing. There are times when we are not in the mood but we have to do it as our husbands want to have sex, then its not too enjoyable. (Woman, New Delhi)

Coercion from partners for sex was sometimes described as "heaviness" on their mind, which prevented them from enjoying sex and fully participating with their partner. The female condom increases women's control over barrier contraceptive methods through their initiation of use and wearing the female condom, which helped participants who were women feel more in control of not only their contraception but also the sex itself.

As the aforementioned participant linked sexual pleasure to feeling happy, participants' mental state was a large component of sexual pleasure. As such, sexual pleasure was increased through having time as well as space to enjoy sexual activity. The aspect of time included both time spent with a partner (such as being together during the day or on a date) and duration of sex. "While having sex when one is tense or both are, for a while we forget our tensions. Sex gives pleasure. Sex should last longer, some husbands are in a rush, they want to finish it fast" (Woman, New Delhi). The female condom helped prolong sex by reducing sensation and some participants used it for more than one sex act (i.e. the male partner ejaculated more than once). Space, meaning privacy from children, was a challenge for most participants living in small homes and/or with extended family (referred to as "joint families"). "In a joint family we are not able to have and experience all the pleasure. We don't feel relaxed, maybe someone will walk in on us" (Man, New Delhi).

Recommendations

Participants provided suggestions focused on potentially redesigning the structure of the condom, the insertion mechanism, and enhancements. The most commonly reported concern was with the outer ring. Some participants were worried that the ring would slip inside during sex. However, only one participant reported that this had actually occurred. "The [outer] ring was going in while having sex, they should make the ring bigger" (Man, New Delhi). Some participants wanted a way to better anchor the female condom to the body; suggestions included adhesive for the outer ring to stick to the vulva or a harness-like strap to be worn by the female:

It may even be stuck in place using an adhesive, or maybe using a band like using a sanitary napkin. That will go a long way in reassuring me that nothing will render the condom pointless in the middle of sex. (Woman, Chennai).

Participants suggested changes to the inner ring (potentially thinner or "softer material") so that it may be less complicated to insert. Due to the firmer material of the ring, male partners reported occasional discomfort in rubbing against it during penetration. The few participants with experience using a menstrual cup reported ease due to the similar motion of insertion. Multiple participants described pain they felt when the ring was released and snapped open. One suggestion to assist insertion was an applicator or "strip" due to sanitation concerns. "Instead of using the fingers, a strip could be used so that it could be infection free" (Woman, New Delhi). Most participants were satisfied with the material, although some felt that it might be thinner. Participants were divided in feeling that there was too much lubricant already on the condom or that it was sufficient. They appreciated being able to add more lubricant if they were having sex for a longer period of time.

Enhancements suggested by participants included features that are similar those offered with male condoms, including different flavors,

colors, and textures (ribbed). "Like in the male condoms you got ribbed and dotted, trying to feel as natural as possible ... maybe things like that ... so it does not feel like you are basically putting it into plastic shaft with a lot of lubricant" (Woman, Interview). They were generally satisfied with the way the female condom looked and its color, although they suggested other colors as enhancement possibilities. Participants often described not liking the smell of the female condom and suggested scents that would be more appealing (strawberry, jasmine). "Adding flavor is one thing to look into, fruity and flowery scents are, in my opinion, aphrodisiacs. Moreover, they mask the rubbery smell that emanates from the condom" (Woman, Chennai).

Discussion

Findings from our study both confirm those found in prior research on perceptions of female condoms and also added new insights in relation to sexual pleasure, while focusing on a diverse sample of male and female participants in India who had recently used female condoms. One of the most commonly reported themes among our participants was worries about pregnancy and STI concerns often prevented them from fully enjoying sexual pleasure. Like most women from other studies based in India, male condoms were one of the only accessible non-sterilization form of contraception of which participants were aware (Ravindran and Rao, 1997; Renjhen et al., 2010). Male condoms rely on the male partner to "wear" them, which makes negotiating use difficult for female partners as it could lead to relationship tensions or abuse (George, 1998; Panchanadeswaran et al., 2008). During cases in which male partners are unwilling to wear a condom during sex, women's pleasure is reduced by fears of unintended pregnancy or STI. The lack of contraceptive choice for the female participants, coupled with other barriers, limited their pleasure during sex with their partners.

Another commonly reported barrier for sexual pleasure was not having enough time and space with their partner. One study with low-income households identified factors (such as busy lives and small living spaces without privacy) that were associated with unsatisfying sex and low frequencies of sexual encounters (Ravindran and Rao, 1997). Most participants in this study were of similar socioeconomic backgrounds and provided similar sexual pleasure limitations. The lack of physical space created stress for many of the participants due to the chance of being caught by a family member. Participants reported that these situations often put pressure on couples and hindered their sexual pleasure even during their brief encounters.

Results of this study support a definition of sexual pleasure that encompasses positive feelings from sexuality (Abramson and Pinkerton, 1995) rather than only an absence of dysfunction or disease, as participants often spoke about contexts that support pleasure. Although unintended pregnancy and STI concerns did reduce their sexual pleasure, they also spoke about how having longer sex and privacy improved their sexual pleasure.

Sexual negotiations and pleasure seem to be intertwined for both partners. Participants acknowledged India's cultural norms that prioritized men's pleasure over women's. But they did not agree with this restriction and reported different personal values. In a study with low-income Indian couples, men reported that they felt "entitled" to sex with their spouses, often demanding or negotiating its terms (George, 1998). Men and women within this study said their own desire for sex as well as their partner(s)' played a role in the pleasure they experienced during sex. The willingness of both parties was described as nearly a requirement in ensuring that there was some level of sexual pleasure during the encounter. Couples' counseling approaches may need to address consent in order to increase relationship and sexual satisfaction. Highlighting women's increased control over sexuality as well as reproductive health may increase female condom uptake.

There were some other factors about the female condom that were also related to pleasure for female participants. Having a female-controlled contraceptive method with trusted efficacy increased women's reported sexual pleasure. Some of the female participants were aware of their husband's infidelities and appreciated the ability to protect themselves against infections. After being educated about the efficacy of the female condom prior to interviews or FGDs, participants reported feeling less preoccupied than they might have been otherwise about breakage, as well as STIs and unintended pregnancy. This finding highlights doubts in other contraceptive methods; addressing misconceptions or distrust in contraception might be important for increasing reproductive control.

Lubrication can be used to enhance pleasure between partners and lubrication in the vagina can symbolize a woman's good health in numerous global contexts (Braunstein and Wiggert, 2005). The use of certain contraceptive methods such as condoms may minimize the sensations of natural lubrication. Condoms often provide artificial lubrication to mimic the feel of natural lubrication. A study conducted in Andhra Pradesh, India, with sex workers using female condoms, reported that with partners they would often market the lubrication found within these condoms as "natural" feeling (Philpott et al., 2006). This same effect was seen with many participants in our current study; the male partners described the lubrication found within the provided female condom added pleasurable sensations as it closely reflected that of natural vaginal lubrication. Overall, there was a positive response from both male and female participants regarding pleasure and lubrication found within the female condoms.

Because the female condom was new to many participants, some described doubts in their correct usage and insertion. Many participants were unfamiliar with inserting menstrual or contraceptive devices into their vagina; they stated concerns of the female condom becoming lodged or lost within the vagina. Package inserts may include basic information about the vulva

and vagina as well as clinic referral information to address this concern. During the informational session before qualitative data collection, female participants were told to be aware that during sex the outer ring does not slip to the side during penetration, rendering the female condom essentially ineffective. The consciousness of the women during sex to ensure that the outer ring did not slip made them hyper aware of the condom and thus reduced their sexual pleasure. Participants did admit during the interviews that the newness contributed to the reduction of pleasure, and these concerns would subside with frequent use of the female condom. To address this concern, future female condom research may provide participants with the opportunity to use a female condom on multiple occasions and/or examine changes over time.

In terms of pleasure experienced by male partners, responses were mixed. The inside ring of the female condom led to pleasure for some and pain for others. This is similar to acceptability of contraceptive rings, such as NuvaRing, with most users not being able to feel the inside ring (Novak et al., 2003). Improvements for the female condom included different varieties for flavor, color, and different types of textures. There are a variety of options available for male condoms and most women in our study expressed their interest in having these same options available for the female condom.

Strengths and limitations

Participants' prescribed use of female condom before interviews or focus groups, rather than simply discussing them abstractly, is a strength of this study. By collecting data in two different urban areas of India, the generalizability of the findings is increased. However, with small samples such as this study, our findings cannot be representative. Furthermore, due to challenges of systematically recruiting participants in India, the generalizability of our findings may be reduced. We have included a diversity of participants (by occupation, urban area, and age) in order to mitigate this challenge. Discussions of some concepts, including sexual

pleasure and its relationship with female condom use, may transpire differently in rural areas (with more "traditional" views on gender roles and expression) and future research would benefit from focusing on participants in rural contexts. Sexuality-related topics are sensitive in Indian contexts and we attempted to create a relatively comfortable space for dialogue. Because of this, we were unable to video record FGDs, which inhibited our ability to identify individual speakers in reporting our findings. Using both FGDs and interviews augments the validity of our findings. Although we have reported the overlap in themes between the two methods, we are limited in our ability to do comparisons due to the small number of interviews. This study is strengthened through using multiple coders to analyze data.

Conclusion

Sexual pleasure is an important consideration in the acceptability of the female condom among women and men living in urban India. Contrary to cultural myths of women's sexual pleasure as unimportant, women in our study discussed sexual pleasure influencing their relationships and sexual satisfaction. Participants generally reported satisfaction with using the female condom, but suggested changes to the inner and outer rings and aligning potential enhancements with male condoms (such as texture or smell). The primary factor for increasing sexual pleasure through the use of the female condom was the reduction in stress caused by unintended pregnancy or STI transmission. As such, our findings add evidence to the strong potential for the female condom to provide women with direct control over their sexual and reproductive health.

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