

“Male-supported, female-initiated”: Exploring a cultural message for communicating around new HIV prevention technologies for women in KwaZulu-Natal, South Africa

ABSTRACT

HIV and AIDS remain one of the leading public health challenges in the world, with young women in sub-Saharan Africa bearing the brunt of HIV infection. Female vulnerability to HIV infection is exacerbated by socio-cultural, economic and biological dynamics. Vaginal microbicide, one of the first topical pre-exposure prophylaxis (PrEP) innovations for HIV prevention can offer new hope for women, but an understanding of the local cultural context and its influence on product acceptability is fundamental for effective HIV communication strategies. Critical health communication navigates through the complexities of cultural discourses to create awareness among women in dominant cultural settings. As a means of understanding the key determinants for effective HIV communication, this paper used thematic analysis of data from a study among female students at the University of KwaZulu-Natal regarding their preferences and the acceptability of two microbicide technologies: the tenofovir gel and the dapivirine ring. Key findings indicate that microbicides give women more options for self-protection and cater for

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diverse sexual encounters, and that their covert use empowers women to use the products even if male partners do not support this. However, women felt more empowered with "male-supported, female-initiated" HIV prevention options. The study suggests that in providing HIV prevention options to women, culturally appropriate messages must be considered. We suggested that topical PrEP must be communicated as a "male-supported, female-initiated" HIV prevention option in rural KwaZulu-Natal contexts.

INTRODUCTION

After three decades of multi-disciplinary efforts to alleviate the HIV and AIDS epidemic, the spread of the virus has been significant, with 36.9 million people reported globally to be infected with HIV in 2019 (Ensor et al., 2019). Globally, HIV and AIDS-related illnesses are the leading cause of death among adolescents, and almost a third of HIV infections are among young people aged 15 to 25 years (MacQueen, 2017). Young women however, bear a disproportionate burden of HIV infection in the South African context. In 2016 the number of new HIV infections among young women was 44% higher than for young men (MacQueen, 2017), and these young women acquire HIV infection at least five to seven years earlier than their male counterparts (De Oliveira et al., 2017). Adolescent girls and young women (AGYW) remain significantly more vulnerable to HIV infection; according to the UNAIDS 2016 estimates, young girls between the ages of 15 and 24 make up 70% of new infections among young people. In South Africa, young women have been identified as a key population group that needs to be prioritised in the HIV prevention agenda (Celum et al., 2019; UNAIDS, 2015; Venter et al., 2015).

These facts underscore the urgent need to strengthen HIV prevention responses that go beyond exclusive biomedical interventions. Evidence-based research suggests the most effective approach to eradicating HIV and AIDS is a combination of biomedical, behavioural, and structural interventions that focus on reducing vulnerability and supporting prevention methods (Isbell et al., 2016). Microbicides are likely to be part of a HIV combination prevention strategy in the future; understanding the acceptability of these options from localised cultural knowledge can ensure effective product demand and optimise product uptake.

Understanding the lived experiences of young women in diverse geo-spatial settings, who engage in various sexual encounters at different stages of their lives, makes HIV prevention complex and epitomises the need for a diverse and multi-pronged approach to reduce HIV acquisition (Govender et al., 2017). Reduction of HIV incidence among young women will require the integration of social, cultural, structural, and biomedical interventions for epidemic control, with a nuanced understanding of the diverse preferences and acceptability of HIV prevention options. The use of antiretroviral medications such as pre-exposure prophylaxis (PrEP) can be a promising approach for the prevention of HIV-1 acquisition (Baeten et al., 2016). This paper explores the preference and acceptability of PrEP through a cultural lens with a group of female students at the University of KwaZulu-Natal, Durban, South Africa, with a specific focus on two microbicide products; the tenofovir gel and the dapivirine ring, towards understanding the key cultural messaging that exhibits a deliberate HIV communication strategy.

Microbicides are topical PrEP products: antiretroviral (ARV)-based substances that can be inserted into the vagina or rectum to reduce the transmission of HIV and other sexually transmitted diseases (Shattock & Rosenberg, 2012). These topical PrEP forms of delivery have been under clinical trials to establish efficacy (AVAC, 2015). The tenofovir gel contains 1% tenofovir, an ARV drug, and works by preventing HIV from reproducing itself in susceptible cells (CAPRISA, 2010). Women in the CAPRISA004 clinical trial inserted one dose of gel within 12 hours before sex and a second dose of gel within 12 hours after sex, and no more than two doses of gel in a 24-hour period (Abdool Karim et al., 2010). The dapivirine ring is made of flexible silicone that fits inside the vagina and diffuses the dapivirine ARV drug over a period of four weeks (AVAC, 2015).

While clinical trial research for an effective HIV prevention product is ongoing and presents varying efficacy results, qualitative research on acceptability of HIV prevention technologies such as the vaginal gel and vaginal rings can provide critical information to facilitate better product uptake in post-trial access settings.

Existing research on the acceptability of topical PrEP is determined by many interconnected factors, such as country setting, ethnic group, education level, gender, age, and socio-economic group (Ramjee, 2011). Acceptability is a complex interplay between a woman, the technology, and the service delivery environment, suggesting that the choice of topical PrEP may vary with personal preference, the nature of the relationship and social environment, and the efficacy of the service delivery for HIV prevention technologies (Tallis, 2012:109). Recent studies emphasise the need for social scientists to further explore factors that influence the acceptance, uptake, and adherence of microbicides as HIV prevention technologies (Kelly et al., 2015; Kippax, 2012; MacQueen et al., 2014).

1. THE ROLE OF HEALTH COMMUNICATION

Public health interventions can be strengthened when biomedical and health communication approaches are combined. Communication is a critical pillar of public health; it is the driver in effective health promotion as it can catalyse behaviour change at the individual and societal level. In earlier years, the field of health communications focused primarily on psychology, and social marketing theories that target people's attitudes, beliefs and behaviours (Lewis & Lewis, 2014). However, this field has advanced, and it is now important to develop health communication initiatives that carry social justice, community empowerment and capacity building in order to enable individuals to be agents of their own development (Lewis & Lewis, 2014). Dutta (2011) argues that effective health communication should facilitate participation in social change. This notion involves creating platforms for marginalised communities to be agents of change that promotes health within their everyday lives.

For topical PrEP to be successful at a population level, individuals must get tested, know their status, seek care, and adhere to this biomedical intervention. Communication plays a role in each of these steps, as communication can be used to create awareness for health-seeking behaviour and also increase support in healthcare services at the clinic and community levels (Storey et

al., 2014). However, health communication alone is insufficient; critical health communication is cognisant of the cultural context that influences various stages of behaviour and this must be investigated in order to find effective positive HIV communication strategies.

2. UNDERSTANDING TOPICAL PREP OPTIONS THROUGH A CULTURAL LENS

Women are biologically more vulnerable to HIV (Naranbhai et al., 2012), and this is exacerbated by various behavioral, contextual, and structural factors (Ngubane, 2010; Patton, 2004; Shefer, 2005): younger age of sexual debut (Pettifor et al., 2004); older and concurrent sexual partners (Halperin & Epstein, 2004; Pettifor et al., 2009); transactional sex for survival or to achieve high-class lifestyles (Leclerc-Madlala, 2003; Scott et al., 2005); limited access to education or increased school drop-out rates (Reddy et al., 2010); and social norms that deny women healthy sexual practices and control over their sexuality (Jewkes et al., 2009). These interconnected influences suggest that research on the efficacy of microbicides for HIV prevention must be integrated within wider studies that explore the behavioral, sociocultural, and structural contexts that influence acceptance and uptake. The vulnerability, lack of agency, and marginalisation that many African women encounter suggest that strategies of abstinence, faithfulness, and male and female condom use alone are insufficient to significantly reduce their vulnerability to HIV risk.

A large body of literature emphasises the significant role of culture in relation to public health issues; how people manage and maintain their health is dominantly influenced by their socio-cultural context (Mantell et al., 2005; Peterson, 2009; Slabbert, Knijn & de Ridder, 2015; Singhal, 2013). Understanding how cultural prescriptions can influence acceptance of microbicides in various contexts is key for product uptake. Topical PrEP acceptability and adherence studies need to include culture-sensitive approaches to HIV prevention options, particularly in the African context (Severy & Newcomer, 2005; Stirratt & Gordon, 2008; Tanner, 2008; Weeks et al., 2004). Understanding of these cultural scripts of behaviour change can only be effective with supporting critical health communication.

This paper addresses the acceptability of topical PrEP products for female students, and the localised cultural knowledge that informs these perceptions by employing the Culture Centred Approach (CCA). Central to the CCA is the understanding that communicating about health involves the negotiation of shared meanings that are imbedded in socially constructed identities, relationships, social norms and structures (Dutta, 2008). The CCA focuses on the importance of culture, structure, voice and dialogue, and agency as key attributes in understanding the cultural context in which microbicides will need to be adopted. By engaging women in open participatory spaces to explore the acceptability of new HIV innovations, there is a reflective space for cultural knowledge exchange and an opportunity for building local capacities for scientific decision-making processes (Dutta, 2013).

3. METHODOLOGY

This was an exploratory study conducted at the University of KwaZulu-Natal (UKZN), Howard College Campus, between December 2014 and March 2015, with the intention of exploring young

women's attitudes towards microbicides as HIV prevention methods. Convenience sampling as a non-probability sampling technique was employed in this study because of its cost-effectiveness and the availability of female participants at UKZN. Ethical approval was received from the Human and Social Science Research Ethics Committee of the University of KwaZulu-Natal (HSS/0501/014M).

Two focus group discussions (FGD) were administered to collect data. The eligibility criteria were that participants were over the age of 18, female and registered as UKZN students. The FGDs that were conducted with the young women (n1=6, n2=6) sought in-depth discussions with collective views from the women to better understand the acceptability of topical PrEP for a culturally relevant health communication message.

Common perceptions of these investigational trial products and their acceptability were categorised, and repetition of common issues were identified as the central themes for discussion. The broader themes were refined into specific codes to identify common themes.

4. FINDINGS

The data presented below indicates some of the key issues surrounding the acceptability of topical PrEP use to reduce the risk of HIV infection among women. Three key themes are explored and later discussed in the context of a culture-centered approach towards establishing a cultural message for critical HIV communication.

4.1 *The promotional challenge of female condoms*

Respondents engaged in dialogue about the acceptability, exposure, and use of female condoms, an existing HIV prevention option for women. The challenges of female condoms offered preliminary insight into potential challenges for consideration when exploring topical PrEP use for women.

Respondents said that female condoms, even though licensed, are not adequately promoted, easily accessible or available. Variety of brands, colours, and flavours are also limited to male condoms, with hardly any variation in female condoms, re-affirming a notion that female condoms are not widely supported or promoted. The limited exposure, promotion and availability of the female condom raises questions of how well informed, readily available, and what opportunities for variation and choice are possible for advancing the use of topical PrEP with women.

So we just trust male condoms and people are just so comfortable using males' condoms, they came first and they were advertised. So much that they don't even sell female condoms, you get them for free. So how unreliable is that? ... Whereas a male, I go to the store and I buy it, whatever type brand whatever. And another thing, male condoms there are so many. They flavoured, they this, they that. Females it's just that one. I'm not going to trust that. (Respondent 2)

The wide distribution and easy availability of male condoms was linked to issues of product trust. Product acceptability was influenced by free versus purchased products, with variety, purchase price, and easy availability indicating the reliability and effectiveness of male condoms. Products purchased for HIV prevention were awarded a greater level of trust than those freely distributed. Perceptions of female condoms indicate that there is a positive correlation in the "promotion of a product" and a "positive perception" linked to that product (Mantell et al., 2005). Mantell et al. warn that inadequate attention to the design, packaging features, overall product marketing, and poor planning in the introduction of a product may result in low levels of product acceptance.

Consumer preferences and the acceptability of microbicides in the future may face a similar discourse as is evident for female condom use. Thus for microbicides to advance the HIV prevention agenda, particularly for women, requires a multi-faceted promotional drive that is contextually designed, culturally relevant, cost effective, and widely available. This approach will ensure that microbicides do not follow in the shadow of the unsuccessful uptake of female condoms.

4.2 Varying formulations and dosing strategies promote diverse sexual encounters

Topical PrEP such as microbicides have been under clinical trial for access in various forms (gels, creams, vaginal rings) and dosing strategies (BAT 24 strategy, on demand, monthly insertions), and trials to advance research specifically on the vaginal rings are ongoing. Most respondents identified that the availability of microbicides in various dosing options and formulations would encourage increased product uptake to suit the preferences and lifestyles of women.

Some people don't like injections, and some people don't even donate blood because of the needle. They know it's necessary to do it but they don't do it because of that process. So, I think having it [a microbicide] in various forms will help them reach ... and make their reception better. (Respondent 1)

Prior research on the issue of adherence to gel microbicides suggests that adherence is a serious problem. Many respondents found the gel dosing strategy more suited for women with routine, planned, and structured lifestyles.

I think I'd honestly forget to put the gel on, like for real, I'd forget. (Respondent 1)

But I also think it's for very disciplined woman. Disciplined in the sense that, you know you get women that are very structured in their lives. "I am the director of Anglo-American, my time is from 8 am in the office to 6 pm, I know Monday, Wednesday and Friday I'm going to go see my man from 8 o' clock till 10 pm". Life is structured! (Respondent 3)

Because of the strict application regimen, the gel would be more likely to be used by women who have “structured” lives. The recognition that working professional women could use the gel within routine and planned lifestyles draws comparison to the respondents’ lifestyles as indicative of a greater level of flexibility and spontaneity. Transactional sex, women in relationships with migrant workers, sugar daddy relationships, and planned sexual encounters would be favourable opportunities for the consistent and correct application of the gel. Most urban respondents argued that the BAT24 dosing strategy created several product limitations, as most sexual encounters were unplanned and spontaneous.

The extended period of reduced risk of infection with the dapivirine ring was perceived as its most appealing characteristic. Respondents identified the vaginal ring as a convenient, practical, and less user-reliant option, as the ring was inserted once a month.

I say the ring because firstly the time frames for the ring ... with the ring there’s that three-week period. There is no planning of in an hour or two or twelve, you have to be prepared and what-not. You just consciously know as a woman that it’s 3 weeks now. (Respondent 1)

We have to be practical about it. Now I’m saying I love the ring because it’s practical, it makes more sense to me as a female. (Respondent 2)

I think the ring would be more, I don’t want to say convenient but, more like... You don’t have time to put on the gel and it’s in there for like three weeks. (Respondent 3)

The dapivirine ring, seen as a “practical” method of preventing HIV infection, involves the convenience of longer protection with the extended product lifespan in the vaginal tract, supported by the extended product adherence from on-demand to a monthly process.

Many respondents’ perceptions towards HIV prevention methods were also driven by the issue of “convenience”, raising questions such as: Is the prevention method easy to access? Is it easy to apply or insert? Is it comfortable? Is there a simple regimen to follow? These issues align with similar concerns raised in studies around female condoms, thus the advancement of topical PrEP will largely depend on the success in creating sufficient product demand through innovative promotional interventions that highlight the availability, accessibility, and ease of application of these women-initiated prevention methods.

Research studies strongly suggest that the development of a long-acting ARV-based ring may facilitate better adherence to topical PrEP, as they rely less on user behaviour compared to the gel (MacQueen et al., 2014). Studies also show that women may prefer the use of a ring due to its simple application process (Hardy et al., 2007). However, some women did raise concerns around the actual application of the ring, asking whether men could feel the ring during sexual intercourse.

4.3 Discreet application overcomes patriarchal opposition to product use

The introduction of topical PrEP for women is rooted within a complex web of socio-cultural considerations, wherein the agency of women to initiate HIV prevention is not always supported by their sexual partners. The dialogue with respondents centred on the importance of "female-controlled prevention": where women are empowered and given agency to make their own sexual choices for HIV prevention

But they're [female condom] not out there as the male condoms. For me, that automatically says it's the man ... the man! You're still giving him the power ... (Respondent 4)

Respondents positioned female-initiated prevention as a way of addressing this "power imbalance", as well as "gendered" HIV prevention choices, shifting the power from male to female. The respondents concluded that an increased presence of female-initiated HIV prevention options re-addressed the power imbalance and suggested that women can take control over their own sexual choices.

According to many female respondents, microbicides are relevant HIV prevention methods due to their covert use, as "being discreet" was identified as a key promoter in cultures where gels and vaginal rings may not be encouraged.

These products are relevant because it, like, unlike a female condom, it's discreet. (Respondent 1)

They are relevant because no one knows, it's my little secret. Like I'm not going to tell people, so then I can actually use it and my boyfriend won't know about it ... (Respondent 2)

I also think both [the tenofovir gel and the dapivirine ring] are relevant provided that awareness comes with it, because what's the point of them being approved in South Africa, or in the medical world or whatever you call it and yet we don't know about it? (Respondent 3)

In the South African context, where a woman's ability to negotiate safe sex practices with her partner is embedded in cultural discourse, the covert characteristic of HIV prevention technologies does make product uptake more appealing. Other studies have found that women prefer to use topical PrEP covertly for multiple reasons, including: fear of partner, fear of stigmatisation, and fear of appearing untrustworthy (Terris-Prestholt et al., 2013).

However, there were respondents who questioned the notion of using an HIV prevention method without the knowledge or consent of their sexual partner.

And also, should come with women being acceptable in taking a stand in protecting themselves. Why must I be discreet about the fact that I'm taking the V-gel? Why must I be discreet about the fact that I'm using a female condom? Why would I be shunned upon if I'm in the female bathroom and I take a female condom? For males it's acceptable but for females it's like ... (Respondent 1)

The use of HIV prevention technologies therefore places women in an empowered position of choice: to decide both on disclosure of product use, and on choice of various PrEP delivery and dosing strategies. Women have variable sexual relationships, and the option of using topical PrEP should depend on the dynamics of the relationship. There are studies that have established that the type of topical PrEP formulation will directly affect the feasibility of using the product covertly (Lanham et al., 2014).

Gender dynamics and the role of men in family structures bring into question the cultural acceptability of PrEP in the South African context.

No. Especially in the African community you know? The males are like 'oh so you think you are in control now' they sort of like now...we as women we actually have a say to something they don't like, something they don't want you know? Because they are so comfortable in being in control type of things, so I don't think they will easily accept it ... The males are going to be thinking now 'ok women want to have a say' type of thing you know? I don't know yeah ... I hope you get what I'm trying to say that it will be highly unaccepted. (Respondent 1)

Current HIV prevention in heterosexual relationships relies on the use of male condoms: this method however is dependent on the male's willingness and ability to use the condom. The use of topical PrEP in the African context may be opposed and challenged by cultural prescriptions that endorse patriarchal practices where women are expected to play subordinate roles within sexual relationships.

There are cultural contexts that emphasise that women's empowerment and control of their bodies can be threatening to men (Mantell et al., 2005). Therefore, cultural ideologies that support male resistance to the use of topical PrEP by women need to be taken into consideration while microbicides as topical PrEP are still in their developmental phases.

4.4 Involving men in women empowerment

Despite the discussions that centered on the covert benefit of microbicides, the respondents highlighted the importance of male advocates and male inclusion in the promotion of women-initiated prevention.

What would happen if microbicides are... let's say it's a man's responsibility to carry microbicides for you? Guess what? We would all use them. (Respondent 1)

No, she right. Because it's like the condom, every time it's always, "Do you have it?" the guy will never ask you. Yeah, the guy will never ask you to bring a condom as a girl. Never, because he knows that the responsibility is on him. (Respondent 2)

This discourse suggests that women do encourage male support to reduce risk of infection, and that some consideration must be given to the role of men as advocates for women-initiated prevention. The notion of placing responsibility on the male partner to initiate safe sex practices confirms recent research that partner disclosure about topical PrEP will influence acceptance, uptake, and adherence to topical PrEP (Gafos et al., 2015; Kelly et al., 2015; Lanham et al., 2014). During the CAPRISA004 clinical trial, it was discovered that partner disclosure about topical PrEP use showed a modest increase in adherence to the product (Mngadi et al., 2014). These findings offer a nuanced perspective to approaching HIV prevention, particularly for future female-initiated prevention products. By revisiting the current patriarchal role of men in society, and in using the cultural practices and ideologies as an enabler for HIV prevention, men could effectively become advocates to reduce the high infections among women.

5. DISCUSSION

Inadequate recognition of the complex interplay of cultural and social factors that shape and prescribe young women's sexual behaviour will result in poor health communication approaches that promote acceptance and uptake of topical PrEP (Auerbach & Hoppe, 2015). Beyond access, the development of topical PrEP at clinical trials and population level roll-out will require a nuanced understanding of women's perceptions towards these biomedical technologies. This study indicates that topical PrEP promotion and critical health communication must foster a "male-supported, female-initiated" (MSFI) stance in proposing topical PrEP as an HIV prevention method.

The introduction of topical PrEP for women may pose a threat to patriarchal African gender roles, which are entrenched in most cultural contexts in sub-Saharan Africa, and as such, new HIV prevention technologies such as topical PrEP require a subtle yet critical health communication effort to address these gender-related issues. Studies investigating male involvement assert that the support of men in topical PrEP use by female partners will enhance adherence (Venables & Stadler, 2011), and these considerations must be echoed in our health communication efforts; but one that it constantly revisits the socio-cultural context for HIV prevention.

The inclusion of men in female-initiated HIV prevention strategies therefore becomes culturally appropriate and a core cultural message in the South African context. The CCA asserts that health development campaigns cannot ignore the collective decision-making matrices in which individuals are embedded: the family, community, and the broader cultural context (Dutta, 2011). This notion highlights the critical need to engage in dialogue with both men and women with the aim of promoting collective agency and solidarity in all our communication efforts.

Acceptance and uptake of new HIV prevention options will further be determined by elements of structure such as healthcare services (Tanner, 2008), bringing the saliency of healthcare workers and facilities into question for the effective rollout and adoption of topical PrEP as an HIV prevention method. According to the CCA, it is imperative that these structures are enabling for potential topical PrEP users, and therefore draws the future discourse of PrEP towards the direction of issues that matter now. Biomedical interventions are at the forefront of HIV prevention, but social and behavioural scientists will now need to work with biomedical experts to contextualise the accessibility, product uptake, and adherence of potential users to ensure epidemic control.

6. CONCLUSION

The larger socio-cultural context that shapes women's health choices, including the patriarchal role men play in sexual relationships, is critical in topical PrEP development. Microbicides as topical PrEP products must be proposed as "male-supported, female-initiated" (MSFI) to ensure a culturally appropriate HIV prevention communication strategy in the South African context.

Cultural issues will impact the acceptance and uptake of topical PrEP as men can feel intimidated by an HIV prevention method that promises to empower women: this highlights the need for further research on the involvement of men in the adoption of HIV prevention technologies for women. Research studies conducted in South Africa suggest that topical PrEP will meet diverse demands and calls for topical PrEP to be made available in various forms to meet various preferences, as well as needs (Orner et al., 2006). Critical health communication will play an important role in facilitating topical PrEP awareness in a culturally relevant manner. These are important considerations as topical PrEP are still under clinical trial and promise to prove efficacious in the future.

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