Will women use microbicides to protect themselves against HIV?

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Are women willing to use a vaginal gel to protect themselves against HIV infection? Researchers at The Miriam Hospital say that is the million dollar question when it comes to developing products known as microbicides that can prevent the sexual transmission of HIV.

Now the findings of a new study known as Project LINK could offer critical insight on user experience with topical vaginal gels – information that could be used to develop microbicide products that optimize a woman's experience, ultimately leading to more consistent use.

Miriam researchers, led by psychologist Kathleen M. Morrow, Ph.D., examined how the formulation of a microbicide – particularly the properties and characteristics of the gel itself – relates to user experience. This information was used to show the range of different sensations and experiences reported by women when they use vaginal gels.

"Adherence and acceptability have been major challenges so far with microbicides," said Morrow. "But if we can develop a product that delivers an effective drug that reduces HIV infections and it's something that women can tolerate – if not enjoy – then the microbicide will have a greater impact on the HIV epidemic."

"It's incredibly important that scientists and microbicide developers hear the voice of potential microbicide users so they can use that information to make the best prevention products possible," she added. "That's how

we will begin to have a fighting chance at stemming the tide of HIV and AIDS."

Microbicides are compounds in various topical forms, such as gels, creams, films and rings, that deliver specific drugs that protect against HIV and other sexually transmitted diseases. Although a safe and effective microbicide has not yet been identified, a number of different microbicides are currently in development.

Half of the estimated 34 million adults worldwide living with HIV and AIDS are women. Women are twice as likely as men to acquire HIV from unprotected sex, but they remain dependent on male cooperation to protect themselves from infection. Microbicides represent an HIV prevention method that women can control, which could be critical in cultures where women may have less power to say "no" to sex, have difficulties negotiating condom use with their partners, and are more likely to be subjected to non-consensual sex. This need is especially urgent in Africa, where AIDS is the leading cause of death and women are disproportionally affected by the disease.

As part of Project LINK, 204 participants experienced four gels, rated how each felt and indicated which formulation they would prefer. Researchers found that preferences varied among the participants, and users' experiences seemed to impact the product they chose, with different women choosing different products. For example, while some women preferred a thicker consistency, others preferred gels that were more lubricating.

They found women do indeed have very specific experiences when using vaginal gels and they can discriminate between different gels based on properties such as texture or consistency. These experiences also impacted women's preferred product choice. Researchers were then able to use this information to develop tools to show the range of different

sensations and experiences reported by women when they use vaginal gels.

Morrow said these user sensory perception and experience measures could help predict which properties play a role in the decision to use a product. That information could then be harnessed to design better microbicides that people will use consistently, she added.

"There is no other research group that I know of that is taking this approach to both understand the user experience and use that understanding to develop very specific biomedical HIV prevention formulations or devices," said Morrow. "It's not that such experiences are not considered in the development of microbicides, but we are doing so very early in the process, before any clinical trials."

The findings were presented on April 17 at the International Microbicides Conference in Australia.

Provided by Lifespan