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## Intravaginal insertion in KwaZulu-Natal: sexual practices and preferences in the context of microbicide gel use

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Intravaginal insertion is often associated with the concept of ‘dry’ sex. All HIV-prevention microbicides tested to date have been vaginally applied lubricant-based gels. In this paper, we examine whether the use of intravaginal insertions could be in conflict with the introduction of vaginal microbicide gels. The Africa Centre site was part of the Microbicides Development Programme evaluating PRO2000/5 microbicide gel. We conducted in-depth-interviews and focus-group discussions with women enrolled in the trial as well as women and men from the community. The analysis focused on people’s knowledge of intravaginal insertion in the community and trial participants’ experience of using trial gels. Intravaginal use of a variety of products was widely acknowledged. We found that the experience of using trial gels – which made sex ‘hot’, ‘tight’ and ‘dry’ – matched the desired outcomes of intravaginal insertion. We found that vaginal ‘dryness’ described the removal of excessive amounts of unusual discharge, rather than the removal of normal vaginal secretions and that intravaginal insertion is not exclusively associated with a desire for ‘dry’ sex. Study findings provide evidence that vaginal microbicide gels may be more acceptable in communities where intravaginal insertion is practiced than was previously thought.

**Keywords:** intravaginal insertion; microbicides; KwaZulu-Natal; South Africa

### Introduction

Microbicides are experimental products being evaluated to find out if they reduce the risk of HIV infection for women during sexual intercourse. Seven microbicides have entered clinical efficacy trials to date and all have been tested in a lubricant-based gel that women insert vaginally prior to sex (<http://dev.it-insights.com/avac/CandidateProducts.aspx>). Evidence predominantly from early-phase microbicide trials has demonstrated very high levels of acceptability of gel use among women and men in sub-Saharan Africa (Bentley et al. 2004; Montgomery et al. 2010; Morrow et al. 2003; Ramjee et al. 2007; Vandebosch et al. 2004; Woodsong and Alleman 2008).

However, a number of authors have questioned whether microbicide gels will be acceptable among women who engage in vaginal practices to achieve ‘dry’ sex (Bagnol and Mariano 2008; Beksinska et al. 1999; Kun 1998; Scorgie et al. 2009). There is an extensive body of literature on vaginal practices in Southern Africa (Bangol and Mariano 2008;

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Beksinska et al. 1999; Braunstein and van de Wijgert 2003; Brown, Ayowa and Brown 1993; Brown and Brown 2000, Civic and Wilson 1996; Dallabetta et al. 1995; Hilber et al. 2010; Runganga, Pitts and McMaster 1992; Sandala et al. 1995; Scorgie et al. 2009). This literature is compatible with the findings of the World Health Organization (WHO) (2007) multi-country study on gender, sexuality and vaginal practices, which identified six distinct types of vaginal practices: (1) external washing with or without products, (2) external application of products around the vulva, (3) anatomical modification, (4) intravaginal cleansing with or without products, (5) intravaginal insertion of products and (6) oral ingestion of specific foods (such as porridge) or poultices to alter the vaginal environment (Hilber et al. 2007). A number of commercial products and herbal preparations are used for these purposes. Five main reasons for vaginal practices have been identified in the literature referenced above: (1) vaginal cleansing, (2) treatment of sexually transmitted infections (STIs) or vaginal discharge, (3) prevention of pregnancy or to induce abortion, (4) enhancement of sexual pleasure and (5) as a 'love potion' to attract or retain partners.

'Dry' sex can be achieved by oral ingestion, intravaginal cleansing, external application and the intravaginal insertion of a variety of products (Brown, Ayowa and Brown 1993; Sandala et al. 1995; Scorgie et al. 2009). The use of products to dry the vagina has specifically been reported in relation to removing vaginal discharge and enhancing sexual pleasure (Beksinska et al. 1999; Brown et al. 2000). However, the WHO study found that practices to enhance sexual pleasure 'are not always aimed at "drying" the vagina; women focused more on "closing, warming and tightening" the vagina ([http://www.who.int/reproductivehealth/topics/fgm/other\\_harmful\\_practices/en/](http://www.who.int/reproductivehealth/topics/fgm/other_harmful_practices/en/); also see Hilber et al. 2010). In addition to 'warming' the vagina (Beksinska et al. 1999; Brown, Ayowa and Brown 1993; Civic and Wilson 1996), references to vaginal practices making a woman 'hot' during sex, in terms of being sexually aroused, have been noted in KwaZulu-Natal (Berglund 1976; Morar and Ramjee 1997; Scorgie et al. 2009), Mozambique (Bagnol and Mariano 2008) and Zimbabwe (Runganga, Pitts and McMaster 1992).

Research in KwaZulu-Natal has demonstrated that sex workers regularly use products for intravaginal cleansing and intravaginal insertion (Karim et al. 1995; Morar and Ramjee 1997; Morar, Ramjee and Karim 1998). More recently, a representative population-level survey investigating vaginal practices in KwaZulu-Natal found that in the previous month, approximately 50% of women reported intravaginal cleansing, 9% external application, 13% intravaginal insertion and 13% oral ingestion (Beksinska et al. 2008). Qualitative research in KwaZulu-Natal has added to our understanding of the factors that motivate women to engage in vaginal practices, which include women's desire to increase men's sexual pleasure and maintain fidelity within their relationships (Scorgie et al. 2009).

This paper specifically focuses on the use of intravaginal insertions to enhance sexual pleasure for two reasons. Firstly, as microbicide gels are applied intravaginally they are particularly comparable with intravaginal insertions. Secondly, the main challenge to the acceptability of microbicides is in relation to the impact that a vaginal lubricant gel may have on sexual pleasure, especially in relation to a desire for 'dry' sex. To better understand whether a lubricant-based vaginal microbicide gel would be acceptable in communities where intravaginal insertions are used, we investigated the desired effects of intravaginal insertion. We then investigated how women experienced the use of vaginal gels in a microbicide clinical trial in KwaZulu-Natal. We compared these findings to further understand sexual practices, preferences and expectations.

This paper uses qualitative data from women in the Microbicides Development Programme (MDP) clinical trial as well as women and men in the community where the

trial was conducted. We examine whether the use of intravaginal insertions conflicts with the introduction of microbicide gels in a rural part of KwaZulu-Natal, South Africa. This is the first study to make this comparison.

## Methods

The Africa Centre for Health and Population Studies is a predominantly rural research site based in the Umkhanyakude District of KwaZulu-Natal, South Africa (Tanser et al. 2008; <http://www.africacentre.ac.za/>). The Africa Centre was one of six research centres conducting the MDP301 randomised, double-blind, placebo-controlled, phase III clinical trial that evaluated the safety and efficacy of PRO2000/5 microbicide gel in the prevention of vaginally-acquired HIV infection. The study design has been described elsewhere (Nunn et al. 2009) and the results were released in December 2009 (<http://www.mdp.mrc.ac.uk/>).

The trial at the Africa Centre commenced in March 2006 and enrolled 1177 HIV-negative women by August 2008. HIV-negative women who agreed to participate were randomly assigned to use 2% PRO2000/5, 0.5% PRO2000/5 or a placebo gel. Gel allocation was blinded at the time of the analysis. Women were instructed to insert 2 ml of gel vaginally prior to sex from a pre-filled applicator. They were counselled to use condoms and not to use intravaginal insertions during the trial. Participants were recruited from 3 of the 16 primary healthcare clinics in the Hlabisa health sub-district.

At enrolment approximately 8% of trial participants were randomly selected to participate in up to three in-depth-interviews (IDIs) at 4, 24 and 52 weeks after enrolment, 20% of their male partners were also identified for interview. In addition, some trial participants not selected for IDIs were invited to participate in focus-group discussions (FGDs), as were women and men from the community not enrolled in the trial. Trial participant and community FGDs were advertised in research clinics and at community events, respectively, to attract volunteers on an ad-hoc basis. Volunteers were allocated to FGDs stratified by sex, age and residency in rural or peri-urban areas. All participants provided written informed consent. Pseudonyms are used in this paper to maintain participants' anonymity.

The interviews and FGDs followed a semi-structured interview guide and were conducted by trained isiZulu-speaking research assistants. The IDIs and FGDs were recorded, transcribed in isiZulu and translated into English. Approximately 5% of the transcripts were re-transcribed, re-translated or back-translated for quality control. Transcripts were coded thematically with predefined themes (Boyatzis 1998) and analysed using the qualitative data analysis software NVivo 2. The coding themes were developed following a review of the relevant literature, findings from formative research conducted during earlier feasibility and pilot studies and by induction driven by the data. The analysis was based on accounts of trial participants' and their partners' personal experience of using trial gels, trial participants' as well as community members' knowledge of intravaginal insertion in the community and, in a minority of cases, respondents' personal experience of using intravaginal insertions.

In total, data from 118 IDIs, with 63 women and 8 men, and 15 FGDs, with 73 women and 53 men, are included in the analysis. The composition of the IDI sample is presented in Table 1 and of the FGD sample in Table 2. Data saturation had been achieved in relation to the topics of interest prior to the analysis. The study was approved by the Medicines Control Council (N2/19/8/2) and the University of KwaZulu-Natal Biomedical Research Ethics Committee (T111/05).

Table 1. Description of the in-depth interview (IDI) sample.

|                       | Female participant IDIs | Male partner IDIs |
|-----------------------|-------------------------|-------------------|
| Week-4                | 63                      | 8                 |
| Week-24               | 38*                     |                   |
| Week-52               | 9*                      |                   |
| Total number of IDIs  | 110                     | 8                 |
| Number of respondents | 63                      | 8                 |
| Mean age              | 33                      | 41                |
| Age range             | 19–64                   | 26–60             |

Notes: \*The 38 women interviewed at week-24 and the 9 interviewed at week-52 were initially interviewed at week-4.

## Findings

### *Intravaginal insertion*

In both the IDIs and FGDs women and men widely acknowledged the intravaginal use of a variety of products. In their first interview, 47 of the 63 trial participants said they knew that women in the community used intravaginal insertions. The majority of participants in 14 of the 15 FGDs were also familiar with the topic. Knowledge about the use of insertions was based on rumours in the community, seeing products sold on the street, stories from neighbours, friends or female family members using products and, occasionally, personal experience. Respondents said that women used intravaginal insertions predominantly to enhance sexual pleasure. Other reasons for using intravaginal insertions were reported but are not included in this analysis, including cleaning the vagina, maintaining good health and as a 'love potion' to attract or retain a sexual partner.

Of the 63 trial participants interviewed, only 7 reported ever using intravaginal insertions themselves for sexual pleasure before joining the trial. None of the participants reported use during the trial. Female community members not enrolled in the trial were not asked directly about their own personal use of insertions because this information was collected in FGDs, but a similar proportion spontaneously described using insertions themselves. There was no age differentiation in women's knowledge of product use. The majority of all female and male respondents said this was an age-old practice as articulated by Nozipho who had experience of selling and using intravaginal insertions:

We were using them [insertions] a long time ago, even our mothers were using them.  
(Nozipho, 50-year-old female FGD participant)

Respondents said they were aware of a number of products that were used as intravaginal insertions to increase sexual pleasure. These included a range of medications and general personal hygiene products, such as Disprin (Asprin), Inza (Ibuprofen), Colgate

Table 2. Description of the focus group discussion (FGD) sample.

|                       | Female participant FGDs | Female community FGDs | Male community FGDs |
|-----------------------|-------------------------|-----------------------|---------------------|
| Total number of FGDs  | 6                       | 3                     | 6                   |
| Number of respondents | 47                      | 26                    | 53                  |
| Mean age              | 35                      | 29                    | 25                  |
| Age range             | 19–65                   | 18–59                 | 18–45               |

toothpaste, Blue Stone (copper sulphate, used locally to clean wounds) and bath salts. There were also commercial products such as snuff (crushed tobacco), alum (hydrated-aluminium-potassium-sulphate) and Knorrox cubes (South African food seasoning), as well as complementary medicines such as Tiger Balm (an anodyne and anti-itching remedy used for colds, headaches or insect bites), Entressdruppels (an oral remedy to relieve nervousness, restlessness and sleeplessness) and Staaldruppels (an oral treatment for iron deficiency anaemias and stopping bleeding). Other general items infrequently reported to be inserted vaginally included whisky, newspaper after being softened by rubbing, water after boiling rice in it and water after soaking a type of jelly fish (also renowned for treating asthma and arthritis when taken orally). There was a range of sexual stimulants that were designed to be taken orally, but were sometimes inserted vaginally, such as Silver Bullets (tablets crushed before insertion) and Love Drops (liquid). In addition there was a range of traditional medicines (locally called *muthi* [singular] or *mithi* [plural]). Generally respondents were unaware of the actual names or contents of the *mithi*, but some were mentioned such as *imbulu* oil (oil and fat of a water monitor), ‘*mamlambo*’ snake oil, hippopotamus fat and *umganu* tree bark (soaked and then water inserted vaginally). Overall, the most commonly reported intravaginal insertions were snuff, alum and a range of *mithi*.

Intravaginal insertions were reportedly used in a variety of ways to enhance sexual pleasure. Some products were diluted in water and then used for intravaginal cleansing (particularly alum) or inserted and either left to ‘dissolve’ (e.g. Tiger Balm or Blue Stone) or inserted and the remnants removed prior to sex (e.g. traditional herbs and snuff). There were only two references to *muthi* for sexual pleasure being administered via razor cuts made in the skin in the genital area (*gcaba*: a common way to administer traditional medicine) (Henderson 2005; Jolles and Jolles 2000). Respondents reported that these products were readily available from pharmacies, shops and traditional healers.

Many respondents referred to a state of sexual preparedness that a woman was expected to achieve and this was most regularly described as a woman being ‘alright’ in advance of sex. For example, Fundile said that women use intravaginal insertions:

... so that should her lover arrive he would find her in a good condition. (Fundile, 24-year-old trial participant)

In order of reporting frequency, the desired outcome of using intravaginal insertions was to make a woman ‘hot’, ‘tight’ or ‘dry’ during sex, these concepts are explored below.

### *Hot sex*

Intravaginal insertions have previously been described as increasing the ‘warmth’ of the vagina. However, in this study when respondents referred to using insertions to be ‘hot’ (*shisa*), only on a few occasions did this relate to the vagina itself being ‘hot’. Instead it predominantly related to sexual arousal. Similarly references to a woman being ‘cold’ (*banda* or *qanda*) related to women not being sexually attractive, not being aroused or being sexually unresponsive. When asked to define the difference between ‘hot’ and ‘cold’ sex, one participant explained that if sex was not hot ‘I don’t care if he stops [sex]’, whereas if sex is hot ‘I will hold on to him’ (Sbongile, 22-year-old trial participant).

The quotes below illustrate the use of the word ‘hot’ to describe sexual desirability:

Snuff brings that heat into your blood [*ukushisa kwegazi*]. (Zakhona, 31-year-old trial participant)

Snuff makes you ... more enjoyable and hot [*shisa*] during sex. (Nomusa, 33-year-old trial participant)

The idea of hot sex was often combined with references to increasing male sex drive (*langazele* meaning 'to long for' or 'desire') or making the woman 'strong' during sex in terms of being physically active during penetration. The words translated as strong included *uqine* ('making strong'), *khuthale* ('active', 'diligent' or 'industrious') and *simame* ('to get strong', especially after illness). The word *simame* is also used to refer to 'success' in terms of someone who is hard working and has elevated their social status.

The following quotes explain the use of intravaginal insertions in terms of increasing libido:

You may end up experiencing difficulty, maybe your partner is not eager [*akasukulangazeleli*] for sex. . . . You insert Zulu things [traditional medicines] in order for your partner to find you right, so that he is eager [*akulangazele*] for sex. (Wandile, 33-year-old trial participant)

Some say you must insert, maybe it will help you to be strong [*usimame*] when you are having sex. (Bonakele, 46-year-old trial participant)

Snuff was the most commonly reported intravaginal insertion used to achieve 'hot' sex. There are references in the literature to the intravaginal use of snuff by women on their own for personal sexual satisfaction (Scorgie et al. 2009). Similar reports did emerge in this investigation, although they were rare.

#### *Tight sex*

Increased sexual pleasure was also reported when the woman was 'tight'. The isiZulu words to explain this included *buyisa*: 'cause to return' or 'restore'; *qoqa*: 'gather together' or 'collect' generally after being dismantled; *buyisana*: 'return' or 'become reunited'; *shwaqa*: 'collect together'; or *bamba*: to 'grasp'. All these terms referred to bringing the vagina 'back together', implying a return to the 'natural' and optimal state of a contracted and tight vagina. These conditions were regularly described as 'being like a virgin' (*intombinto* meaning 'young girl who has not been touched' or *itshitshi* referring to the age set of young virgin girls) or not being 'loose' (*xega*). The term loose is viewed as a negative attribute and is associated with promiscuity and infidelity, as well as older age.

There was another interpretation of being tight, as described by the isiZulu word *shuba* (or *-shubisa*). This means becoming thick in terms of food, literally describing the process of 'precipitation' from fluid to solid, for example when jelly sets or milk curdles. Closely associated is the word *qinisa* which also means to tighten but more specifically is translated as to 'make firm' or 'strengthen'. When respondents referred to being 'wet', they were generally referring to the presence of 'water' in the vagina. So this idea of 'thickening' results in the transformation of watery secretions into thick mucus. Being tight or thick during sex was viewed as representing youth, virginity, desirability and being in an optimum state for the partner's sexual pleasure. Alum, Blue Stone, Tiger Balm and Disprin were most regularly associated with tight sex, although Staaldruppels and Entressdruppels were also mentioned:

It is usual [to use insertions] because sometimes you find that you are loose [*uyaxega*] and you want to tighten [*ezizokuqinisa*] yourself. (Gugu, 46-year-old trial participant)

I have heard ladies say that they insert. I do not know whether it is those things that thicken [*bayazishubisa*] their vagina. (Thobile, 19-year-old trial participant)

#### *Dry sex*

Respondents were far less likely to refer to the use of insertions for vaginal dryness compared with their 'hot' or 'tight' attributes. The isiZulu word for 'dry' is *oma* and

describes becoming dry, being thirsty or the weather being dry such as in a drought. Bad sex was described as being ‘cold’ and ‘wet’. It would be easy to assume that ‘good’ sex must be ‘hot’ and ‘dry’, but in these interviews there was a distinct meaning to being ‘wet’. Wet was seen as an unhealthy state for the vagina, generally associated with watery secretions or STI-related discharge. It was sometimes said that if a woman had been cursed by an evil spell her vagina would be ‘full of water’. Hence the desire to be dry was often related to the removal of excessive water or discharge in the vagina and a need to ‘drain the water’:

They insert to become dry [*yomile*] because maybe a woman feels that she is wet or there is water [discharge] coming out, then she needs things to insert to make her dry. (Zinhle, 28-year-old trial participant)

None of the references to becoming dry referred to the absence of secretions or abrasive penetrative sex. Women clearly distinguished between lubrication and excessive wetness as the following description of good and bad sex demonstrates:

It [good sex] is when sex is slippery [*uyashelela*] then it is more enjoyable. It’s [bad sex] when you feel pain . . . or if you are too wet [*umanzi*] you do not enjoy sex. (Ntombi, 22-year-old trial participant)

### *Microbicide gel*

There was an unexpected positive impact of gel use on sexual pleasure. Of the trial participants and their partners interviewed, 49 of the 63 women and 4 of the 8 men said the gel enhanced their sexual pleasure. Only one male reported a decrease in sexual pleasure. The remainder reported that gel did not affect their sexual experience. A number of women discussed the use of gel in the context of their knowledge of intravaginal insertions:

It has happened for a long time that there are things you insert just for a day and not informing your partner about such things. Now that there is gel, there is no need to look for other things. (Cebile, 42-year-old trial participant)

Trial participants said that the gel increased their sexual pleasure by making sex ‘hot’, ‘tight’, ‘smooth’ and ‘dry’. The hot, tight and dry outcomes and the frequency with which they were reported were consistent with the desired outcome of using intravaginal insertions. In addition women enjoyed the lubricating effect of the gel which made sex ‘smooth’. The reports of these experiences did not change across the IDIs at different time points. The concepts of hot, tight, smooth and dry sex in relation to trial gel use are explored below.

### *Hot sex*

Trial participants were familiar with the idea of both intravaginal insertions and gel making sex ‘hot’ and at times compared gel use to other women’s use of local insertions:

They say they do it [intravaginal insertion] for them to be alright. Some other things [insertions] make someone to be alright, others become hot during sex, others become pleasant during sex . . . I usually tell them that I have got the gel . . . that it makes me to be alright. (Nonhlanhla, 41-year-old trial participant)

The trial participant quoted below is one of three wives in a polygamous marriage and states that she has received more attention from her husband than the other wives since she started using the gel:

It shows there is a difference that the gel makes; he craves that heat [*kushisa*] that rises, and it means he can see that it is love that rises, and it’s hot [*ukushisa*]. (Smisiwe, 54-year-old trial participant)

Male partners also referred to the gel making sex hot and increasing women's libido:

It [gel] makes you feel hot, and makes sex more enjoyable. (Mlungisi, male partner of 39-year-old trial participant)

You see, it happens that if we start having sex, I reach climax and then I sleep. But when my partner inserts gel, there is encouragement in our lives ... there is no laziness [during sex]. (Nkosinathi, male partner of 37-year-old trial participant)

### *Tight sex*

References to the trial gel tightening the vagina also reflect how respondents described intravaginal insertions. As the quote below demonstrates, women often used intravaginal insertions as a reference point:

What I have noticed with the gel is that when I inserted it, it was like I had used the traditional herbs [*mithi*] because it tightened [*buyisa*] my vagina. ... It feels tight like that of a child [*itshitshi*]. (Jabu, 29-year-old trial participant)

The presence of the gel, which is viscous in consistency, was often described in the same way as the use of intravaginal insertions, as 'thickening' the vaginal secretions. This woman describes the gel as having a thickening effect, like hair gel:

[Gel] thickens [*shubisa*] the vagina, I will compare it to the styling gel that is used in hair. ... It works perfectly and I think it would help those people who have discharge because it thickens the vagina. (Khetiwe, 34-year-old trial participant)

In terms of gel use, women used *simame* to describe the gel being 'successful' in enhancing sexual pleasure thereby having a positive impact on the relationship overall.

### *Smooth sex*

After describing the gel as making sex hot and tight, its lubricating impact was the third most commonly reported positive attribute. This reference to a preference for 'slippery' or lubricated sex only emerged in relation to gel use, and yet was not divorced from the ideal of sex being tight or dry. The quotes below highlight the reasons why some women liked the lubricating effect of the gel:

Eh I can say that after having sex I experienced pains, but since I have been using the gel I have been okay and sex is not painful. I even felt like after having sex I could have more because it was not painful, [because] it is slippery. (Ntombi, 22-year-old trial participant)

If I have inserted the gel and by the time we are having sex, he usually feels it being very hot in a pleasant way and that nice slipperiness. Everything is just nice for him. That is why he would just say, 'my darling, insert your thing' [gel]. (Lungeleni, 26-year-old trial participant)

The desire for lubrication was not universal and the potential lubricating effect of the gel had caused concern for some participants who ended up being pleasantly surprised that the gel was not 'too slippery':

I was expecting the gel to be slippery [*kuyashelela*] as it is like Vaseline, but only to find out that this gel tightens [*kuyabamba*]. (Nompumelelo, 43-year-old trial participant)

### *Dry sex*

The trial gel is obviously a lubricant, yet the fact that the gel 'dried' the vagina was the fourth most frequently reported positive attribute, after hot, tight and lubricating:

When I did not use the gel I got wet, but when I used the gel it made me dry. . . . It was more enjoyable. (Thobile, 19-year-old trial participant)

[Before] there was just water coming out of the vagina, but now that I'm using the gel I feel alright and dry [*ngizomele*]. (Senzile, 26-year-old trial participant)

Only one of the eight male partners interviewed commented that he preferred sex without the gel, because of the increased wetness. He described the gel as being like 'water' and stated that a woman using the gel is:

Like a person who is using contraception [injectables], you have one sex act and the next she is not the same [becomes too wet]. (Siboniso, male partner of 40-year-old trial participant)

### *Social acceptability*

Respondents stated that intravaginal insertions were generally used secretly without the knowledge of the male partner. The majority of female respondents talked about women using products for sexual enhancement without expressing either positive or negative attitudes. However, the majority of all the male respondents viewed the use of insertions negatively and were suspicious of women who used them. There were a number of negative connotations associated to the use of intravaginal insertions. These included assumptions of sexual inadequacy, infidelity and promiscuity if a woman had to use a product for her or her partner to enjoy sex:

There is my friend, who inserts [intravaginal insertions]. She says that she does that because she wants to be enjoyed during sex. Maybe her partner told her that she is not great at sex. (Busisiwe, 23-year-old trial participant)

I have heard people at school saying that snuff is useful when one has been cheating so that the real partner does not feel that you have been cheating. (Samke, 21-year-old female FGD participant)

Conversely, over half of the trial participants disclosed gel use to their partners. Gel use was viewed positively by both women and men, although men from the general community were adamant that they would want to know if their partner was using the gel. However, the common belief that men could 'feel' if a woman had had sex with someone else made some men suspicious of the gel. One male partner of a trial participant reported that the only thing he did not like about the gel was that he could not tell if his partner had been unfaithful:

I can say if you are having sex with someone there is a difference between if you had sex with her many days ago or if you had sex with her yesterday. There is a difference that feels like this person has been having sex with another person. The difference is [when using gel] you cannot differentiate whether she has been with another person. (Nkule, male partner of 37-year-old trial participant)

One woman was forced to stop using the trial gel due to her partner hearing rumours in a bar that women were using the gel to hide infidelity.

### *Sexual pleasure*

Although the conversations about the use of intravaginal insertions related to increasing sexual pleasure, it was often unclear as to whether they were considered to increase the males' sexual pleasure or that of the woman. When this topic was probed, it was often difficult to distinguish between a woman being sexually satisfied versus her being satisfied that she had sexually satisfied her partner. This discussion was infused with the expectation

that a woman was supposed to satisfy her partner and failure to do so could result in the partner taking an additional girlfriend or the complete dissolution of the relationship.

However, the discussion relating to gel use and sexual pleasure was far less ambiguous. One third of the women who reported that gel increased sexual pleasure claimed that the increased pleasure was predominantly experienced by the men and another third claimed it was predominantly experienced by the women. In these discussions there was a far stronger emphasis on female sexual desire and pleasure. This often related to the lubrication of the gel reducing pain during sex, as well as increasing sexual stimulation and consequently, female satisfaction:

I was feeling pain before I used gel, but now because it [gel] softens [lubricates], now I am enjoying sex as a woman. (Nompilo, 39-year-old trial participant)

Whilst many women reported experiencing pain during sex, it was clear that pain was not a necessary aspect of sex and was not desired by women. This differs from recent findings in Mozambique where good sex was expected to be painful and involve friction (Bagnol and Mariano 2008).

The quotes below also demonstrate the impact that women felt gel use had on their sexual pleasure:

I enjoy sex because we take longer before we orgasm if we use the gel. (Nobuhle, 28-year-old trial participant)

It didn't happen that I lag behind when we are having sex [with gel]. ... It does happen that the woman reaches orgasm first, or the partner first, this time since I used your thing [the gel] it is me who came first like when you reach first and the man later. (Caba, 56-year-old trial participant)

## Discussion

In this paper, we set out to examine whether the use of intravaginal insertions could be in conflict with the introduction of microbicide gels in a predominantly rural part of KwaZulu-Natal, South Africa. We have described the types of intravaginal insertions used in the community and their desired effects. We found that the experience of using trial gels – which made sex hot, tight and dry – precisely matched the desired outcomes of intravaginal insertion. Our study provides evidence that vaginal microbicide gels may be more acceptable in communities where intravaginal insertion is practiced than previously thought. These findings also support the WHO study in arguing that intravaginal insertions are not exclusively associated with a desire for dry sex.

There are two reasons why the association between intravaginal insertion and dry sex may have been previously overstated. Firstly, there has been research into intravaginal insertion for almost six decades with insertions being reported to tighten, dry and warm the vagina. However the advent of the HIV epidemic reignited interest in intravaginal insertion and raised concern about a link between the drying effect of various vaginal practices and HIV infection (Dallabetta et al. 1995; Fonck et al. 2001; Gresenquet et al. 1997; Mann et al. 1988; Myer et al. 2005, 2006; Runganga and Kasule 1995; van de Wijgert et al. 2000). Consequently researchers focused on dry sex and often phrased questions about vaginal practices to explicitly ask about the use of vaginal drying agents.

Secondly, the desire for dry sex is atypical in terms of Western concepts of sexual pleasure and therefore became a 'cultural practice of interest'. Conversely, it is not unusual for women in Western countries to desire a tight vagina (Braun and Kitzinger 2001), evidenced by a growing demand for vaginal laser treatment and cosmetic surgery to tighten the vagina and vulvar structures. The idea of heat stimulation is also not

uncommon in Western countries: a well known condom brand markets a heat lubricant, described as creating 'a warming sensation that will immediately heighten sensitivity'.

The main strength of this study is our ability to investigate in depth the concept of dry sex among a cohort of women using lubricant-based vaginal gels. When respondents discussed the use of insertions to dry the vagina, it might have been assumed that vaginal secretions were being removed to reduce lubrication and increase friction. However, the same respondents described the lubricating gel as drying the vagina. The comparison between traditional intravaginal insertions and the gel has allowed us to critically review the idea of vaginal 'dryness'. These trial participants could have been using one of three vaginal gels: 0.5% PRO2000, 2% PRO2000 or placebo. Consequently it will be important to evaluate whether reports of the gel drying the vagina, or in fact making sex hot or tight, differ by gel group in future analyses.

A limitation of this study is that only a minority of the respondents reported using intravaginal insertions themselves and only the women enrolled in the trial and their male partners had used the trial gels. This limited our ability to directly compare the experience of using intravaginal insertions with the use of microbicide gels. In addition, given that the use of intravaginal insertion was prohibited when using the microbicide trial gels, it is probable that women who regularly use insertions were discouraged from joining the trial and possible that women in the trial underreported intravaginal insertion. Finally, in this paper we focused exclusively on intravaginal insertions. However, intravaginal cleansing, external application and oral ingestion of products are also associated with increasing sexual pleasure in KwaZulu-Natal. It will be important to also investigate the desired effects of these practices in order to evaluate a possible conflict with microbicide gel use.

Our findings also highlight issues that need to be considered before the introduction of an effective microbicide. There were some reports of negative associations with intravaginal insertion relating to sexual inadequacy and promiscuity. In this study, trial participants often explained their use of gel in terms of their knowledge of intravaginal insertion. Given this cross-fertilisation of language, the potential risk of these limited negative connotations being transferred to an effective microbicide gel need to be considered in the development of future microbicide marketing strategies.

A major difference between intravaginal insertion and gel use was the focus on female sexual pleasure in relation to the gel. This stronger emphasis on female sexual pleasure may be the result of the gel itself. However, it is important to note that women enrolled in the microbicide trial were encouraged to talk about their sexual experiences regularly. Therefore, women enrolled in the trial may have been more forthcoming in discussing sexuality and pleasure in terms of gel use. These findings do not negate the gender imbalances of sexual encounters in this population, but they do present an image of female sexual desire and sexual expectation that has often been absent in discussions about intravaginal insertion.

Women were eager to use a product that could reduce pain and discomfort during sex and increase sexual pleasure for both themselves and their partners. The trial gel offered both relief and satisfaction. Local familiarity with the idea of physically inserting products vaginally appeared to demystify the vaginal insertion of a microbicide gel. In addition, the discourse surrounding intravaginal insertion provided clear terms of reference for women to explain their use of a novel vaginal product. This not only counters the fear that microbicide gels may be less acceptable in communities where intravaginal insertions are used for sexual enhancement, but suggests that local knowledge, language and understanding of using products vaginally may actually facilitate the introduction of microbicide gels.

Regardless of whether or not an effective microbicide is eventually formulated in a lubricant gel or another formulation applied vaginally, marketing strategies will have to

take account of local perceptions of intravaginal insertion as well as sexual practices, preferences and expectations. There is evidence to date that microbicide gels are acceptable among trial cohorts. In this paper we have demonstrated that a desire for dry sex does not preclude a desire for lubrication. This finding provides optimism regarding the acceptability of a lubricant-based microbicide in the broader community if a microbicide gel is found to be effective against HIV.

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## Résumé

L'insertion intra-vaginale est souvent associée au concept de sexe «sec». Á ce jour, tous les microbicides testés dans le but de prévenir l'infection à VIH sont des gels contenant du lubrifiant, qu'il faut appliquer dans le vagin. Dans cet article, nous examinons les possibles contradictions entre les pratiques d'insertion intra-vaginale et celles de l'insertion vaginale de gels microbicides. Le site Africa Centre était inclus dans le programme de développement des microbicides évaluant le gel microbicide PRO2000/5. Nous avons conduit des entretiens en profondeur et des groupes de discussion thématiques avec des femmes participant à cet essai, ainsi que des femmes et des hommes issus de la communauté. L'analyse s'est concentrée sur les connaissances des individus sur l'insertion intra-vaginale pratiquée dans la communauté et sur l'expérience des gels étudiés chez les participantes. Le recours à l'insertion intra-vaginale de différents produits s'est révélé largement reconnu. Nous avons découvert que l'expérience des gels à l'étude, qui rendent le sexe «chaud», «serré» et «sec» allait de pair avec les conséquences attendues de l'insertion intra-vaginale. Nous avons découvert que par «sécheresse vaginale», il fallait entendre la suppression de l'excès de sécrétions inhabituelles, plutôt que celui des sécrétions vaginales normales, et que l'insertion intra-vaginale n'est pas exclusivement associée au désir de sexe «sec». Les résultats de l'étude apportent la preuve que les gels microbicides vaginaux peuvent être plus acceptables qu'on ne le pensait auparavant dans des communautés au sein desquelles l'insertion vaginale est pratiquée.

## Resumen

La inserción intravaginal suele asociarse con el concepto de sexo 'seco'. Todos los microbicidas para prevenir el contagio del VIH probados hasta la fecha han sido geles de lubricantes que se aplican en la vagina. En este artículo, examinamos si el uso de inserciones intravaginales podría entrar en conflicto con la introducción de geles de microbicidas vaginales. El Africa Centre participó en el Programa de Desarrollo de Microbicidas para evaluar el gel microbicide PRO2000/5. Llevamos a cabo entrevistas exhaustivas y charlas con grupos de mujeres que participaron en el ensayo así como de mujeres y hombres de la comunidad. En el estudio se analizó en concreto qué nivel de conocimientos tenían las personas de la comunidad del uso de la inserción intravaginal y qué experiencias tenían los participantes del estudio con el uso de los geles del ensayo. Los participantes conocían bastante bien el uso intravaginal de toda una amplia variedad de productos. Observamos que la experiencia de usar los geles del ensayo – que causaba que el sexo fuese 'caliente', 'estrecho' y 'seco' – coincidía con los resultados deseados de la inserción intravaginal. Descubrimos que cuando los participantes describían la sequedad de la vagina se referían a la eliminación de cantidades excesivas de fluidos inusuales más que a la eliminación de las secreciones vaginales normales y que la inserción intravaginal no se asociaba exclusivamente al deseo de tener relaciones sexuales 'secas'. Los resultados del estudio ofrecen evidencias de que los geles de microbicidas vaginales podrían ser más aceptados de lo que se pensaba en las comunidades donde la inserción intravaginal es una práctica habitual.