SHORT REPORT

Rectal douching and implications for rectal microbicides among populations vulnerable to HIV in South America: a qualitative study

Jerome T Galea, Janni J Kinsler, John Imrie, César R Nureña, Jorge Sánchez, William E Cunningham

ABSTRACT

Objective While gel-formulated rectal microbicides (RM) are the first to enter clinical trials, rectal douching in preparation for anal intercourse is a common practice; thus RMs formulated as douches may be a convenient alternative to gels. Nonetheless, little is known about potential users’ thoughts regarding douche-formulated RMs or rectal douching practices, data that is needed to inform the advancement of douche-based RMs. This qualitative study examined thoughts regarding douches, their use as an RM and current douching practices among men who have sex with men and transgender women.

Methods 12 focus groups and 36 in-depth interviews were conducted (N=140) to examine the overall acceptability of RM, of which one component focused on rectal douching. Focus groups and interviews were recorded, transcribed verbatim and coded; text relating to rectal douching was extracted and analysed. Sociodemographic information was collected using a self-administered questionnaire.

Results Support for a douche-formulated RM centred on the possibility of combined pre-coital hygiene and HIV protection, and it was believed that a deeply penetrating liquid douche would confer greater HIV protection than a gel. Drawbacks included rectal dryness, impracticality and portability issues, and potential side effects. Non-commercial douching apparatus use was common and liquids used included detergents, vinegar, bleach, lemon juice and alcohol.

Conclusions A douche-formulated RM, while desirable and perceived as more effective than a gel-formulated RM, also generated questions regarding practicality and side effects. Of immediate concern were the non-commercial liquids already being used that likely damage rectal epithelia, potentially increasing HIV infection risk. Pre-coital rectal douching is common and an RM formulated as such is desirable, but education on rectal douching practices is needed now.

INTRODUCTION

Despite a worldwide decrease in new HIV infections, the epidemic continues to expand in men who have sex with men (MSM) and transgender women (TGW), whose primary risk of infection is unprotected receptive anal intercourse. Rectal microbicides (RMs) may provide a new prevention option for these populations when condoms are not used. Since lubricating gels are frequently used for anal intercourse, a gel-formulated RM is the first to enter a Phase II clinical trial; however, lubricant use for anal intercourse is not universal, and non-lubricant RM alternatives are desirable. Because MSM and TGW often prepare for receptive anal intercourse by using rectal douches, interest in a douche-formulated RM is high among these populations in the United States and South America. A study conducted in the United States, for example, found that 53% of HIV-negative MSM douched in preparation for anal sex. Additionally, a study among Peruvian MSM found that while 27% reported a history of rectal douching, 80% reported they would use an RM formulated as a douche if it reduced the risk of HIV infection. However, to be able to provide more information regarding the development of an RM douche, information regarding potential users’ thoughts on rectal douching and practices is also necessary.

The present study used qualitative data to (1) examine thoughts regarding douches and their use as an RM and (2) describe current douching practices (liquids and apparatuses used) among MSM and TGW from Peru and Ecuador.

METHODS

As part of a larger study examining the overall acceptability of RM in South America, we performed a sub-analysis of qualitative data derived from focus groups and in-depth interviews by searching for references to rectal douches/enemas and their use. A heterogeneous sample of 140 MSM and TGW from Lima and Iquitos, Peru, and Guayaquil, Ecuador, was purposively recruited by peer outreach workers at a variety of venues (discotheques, community centres, sports facilities). Participants were assigned to either a focus group (104 participants) or an in-depth interview (36 participants). Both focus groups and in-depth interviews were used to balance the breadth of ideas and opinions afforded by focus groups with the more in-depth and often personal information yielded by individual interviews. The study cities were selected because of their concentrated HIV epidemics in MSM and TGW (estimated HIV prevalences: Peru, MSM=12.4% and TGW=20.8%; general population 0.40%; Ecuador: MSM/TGW: 15.1% vs 0.31%). Participants were eligible for

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HIV prevalence data specific to TGW in Ecuador are not available.
participation if at least 18 years of age and reporting sex with a male in the previous 12 months.

Using semistructured guides for both focus groups and in-depth interviews, participants were first asked to discuss a range of topics related to RM acceptability, including formulation preferences (gels/lubricants and douches/enemas) and then asked about practices. Focus groups and interviews were recorded, transcribed verbatim and analysed using atlas.ti v 6.0 (Scientific Software Development, Berlin). Since the focus groups and in-depth interviews followed nearly identical semistructured guides, a common codebook was constructed permitting analysis of all qualitative data as an aggregate. Coded text related to thoughts about or use of rectal douches/enemas was extracted into tables under four columns: pros, cons, liquids used and apparatuses used. Emergent themes in the pros/cons columns were supported by representative quotes, which were translated to English and then back-translated to Spanish to ensure accuracy. Sociodemographic information was collected using a self-administered questionnaire. Voluntary informed consent was obtained prior to study participation, and Institutional Review Boards at the University of California, Los Angeles, Impacta Salud y Educación and Fundación Ecuatoriana Equidad approved the study prior to implementation.

RESULTS
Sociodemographic information is presented in table 1.

Pros and cons of a douche-formulated RM
Pros: Participants voiced support for a douche-formulated RM:

It could be accepted due to hygiene. (Interview-MSM)

…it kills two birds with one stone, because I take care of the hygiene and it’s for [protecting oneself]. (Interview-TGW)

Furthermore, participants felt that an RM enema would provide greater protection than an RM lubricant:

The ideal would be a type of enema, something like that, because this is going to have more effect, that is, it is going to go deeper [inside your body]. (Focus Group-MSM)

Cons: Drawbacks to a douche-formulated RM also emerged. First, discomfort from the effect of internal cleansing was seen as a potential downside not only to the receptive partner but also to the penetrative partner:

More than leaving you cleansed you end up really dry, you don’t have anything from your body to lubricate, and in the end your partner is going to be uncomfortable. (Focus Group-MSM)

A further drawback was application practicality:

Sometimes there’s no time to put on a condom, much less apply an enema. (Focus Group-MSM)

Likewise, the inconvenience of transporting a douche compared with a condom was brought up:

Because you’re going to have to have a huge tube, you’re going to have to carry it around, aren’t you? On the other hand, you carry condoms in your pocket or a lubricant, as well. (Focus Group-MSM)

Finally, worries about the potential side effects of douches were mentioned as it was felt that harm could result from the procedure involving:

...forcing something to be inserted into our anus with force. Because when you do that thing, you flush, the flushing, you use the enema forcefully so that [it does] the cleansing, right? And this is extremely harmful to our health. (Focus Group-TGW)

Douching solutions and apparatuses used
A number of liquids used for rectal douching were mentioned, including lemon juice; tap water; soap and water; camphor; vinegar; a mixture of soap, bleach and isopropyl alcohol; chamomile water; detergent; shampoo; and (consumable) alcohol. Likewise, a wide range of apparatuses were used for rectal douching, including ‘telephone’-style showerheads; plastic soda bottles; hair dye bottles; store-bought enema kits; and syringes.

No differences were detected between MSM and TGW regarding rectal douching thoughts, practices, solutions or apparatuses used.

DISCUSSION
Though previous research indicates high interest in a douche-formulated RM, the present study found specific factors related to current rectal douching practices that would likely impact use of a douche-formulated RM. For example, douche RMs may appeal to consumers who perceive that an internally administered liquid formulation is intrinsically ‘better’ than a gel formulation or who desire a single product that both cleans internally and protects against HIV. However, concerns also emerged around the comfort and safety of internal cleansing along with the perceived impracticality of douching compared with lubricant application. These drawbacks suggest that the use of a douche-formulated RM may well be confined to those who already practise the procedure, and the eventual advancement of a douche RM will need to be weighed against product development costs and their potential to impact incident HIV infection compared with other HIV prevention methods.

Table 1 Sociodemographics of MSM and TGW (N=140)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>All (total N=140)</th>
<th>Lima (total N=51)</th>
<th>Iquitos (total N=44)</th>
<th>Guayaquil (total N=45)</th>
</tr>
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<tbody>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mestiza</td>
<td>94 (68)</td>
<td>29 (58)</td>
<td>29 (67)</td>
<td>36 (80)</td>
</tr>
<tr>
<td>White</td>
<td>26 (19)</td>
<td>13 (26)</td>
<td>8 (19)</td>
<td>5 (11)</td>
</tr>
<tr>
<td>Indigenous</td>
<td>4 (3)</td>
<td>4 (8)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Other</td>
<td>14 (10)</td>
<td>4 (8)</td>
<td>6 (14)</td>
<td>4 (9)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–29</td>
<td>107 (80)</td>
<td>29 (62)</td>
<td>38 (88)</td>
<td>40 (90)</td>
</tr>
<tr>
<td>30–39</td>
<td>17 (13)</td>
<td>10 (21)</td>
<td>5 (12)</td>
<td>2 (5)</td>
</tr>
<tr>
<td>40+</td>
<td>10 (7)</td>
<td>8 (17)</td>
<td>0 (0)</td>
<td>2 (5)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>8 (6)</td>
<td>3 (6)</td>
<td>2 (4)</td>
<td>3 (7)</td>
</tr>
<tr>
<td>High school</td>
<td>71 (53)</td>
<td>17 (35)</td>
<td>25 (59)</td>
<td>29 (66)</td>
</tr>
<tr>
<td>Greater than high school</td>
<td>56 (41)</td>
<td>27 (59)</td>
<td>15 (36)</td>
<td>12 (27)</td>
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<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>81 (64)</td>
<td>33 (64)</td>
<td>23 (58)</td>
<td>25 (61)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>23 (18)</td>
<td>11 (24)</td>
<td>3 (7)</td>
<td>9 (22)</td>
</tr>
<tr>
<td>Student</td>
<td>23 (18)</td>
<td>2 (4)</td>
<td>14 (35)</td>
<td>7 (17)</td>
</tr>
</tbody>
</table>

Due to missing data, variables do not sum to total Ns. 
MSM, men who have sex with men; TGW, transgender women.
While our intention with the overall study was to examine the acceptability of RMs regardless of formulation type and was therefore designed for breadth rather than depth of specific sexual or perisexual behaviours, we were nonetheless surprised—and concerned—with the rectal douching solutions that participants reported. Many of the solutions used as rectal douches in preparation for receptive anal intercourse almost certainly damage the fragile rectal epithelium due to their acidic, corrosive or surfactant nature. Unfortunately, the present study is limited in its ability to completely understand why participants who reported using such liquids rectally did so. Given that many of the liquids are commonly used for cleaning and disinfection, it is possible that there is the belief that these liquids will also be effective at cleaning and disinfecting the rectum. It is also likely that use of these harsh products on delicate rectal tissue could increase HIV infection risk. These data, though alarming, serve to underscore two important issues. First, the desire these participants had to prepare for anal intercourse, to literally be ‘clean and disinfected,’ points to the need for a much more thorough inquiry into the meaning and practice of anal sex for MSM and TGW far more than what this study was able to provide, as such issues may impact RM development and deployment. For example, was the use of a bleach douche an ‘indigenous douche-microbicide’ used to protect against transmitting or becoming infected with a STI? Could the insertive partner have requested the use of bleach for his protection from the receptive partner? Was the use of alcohol for cleansing or intoxication? These unknowns, though serendipitously uncovered while exploring RM acceptability, deserve further inquiry in their own right because the uptake of any rectally administered HIV prevention product—gel or douche—will not occur in a social vacuum but rather will be mediated by users’ beliefs, practices and interactions with sex partners. Second, regardless of RM development, there appears to be an immediate need for HIV prevention messages to include information on safer rectal douching practices, specifically with regard to ‘home-made’ douching liquids. Current research underlines its high frequency, but otherwise very little else is known about a behaviour that, as seen in the data presented here, could be doing more harm than good.

This study was conducted in two large urban coastal cities (Lima, Guayaquil) and one urban jungle city (Iquitos) in South America and is not generalisable to all South American MSM and TGW. Likewise, the study sample was that of relatively young, educated and mestizo/a MSM/TGW; thus the findings may not apply to older, less educated, unemployed or non-mestizo/a MSM/TGW. Further, data were from a larger study that did not focus specifically on rectal douching.

Data from this study give insight into a commonly practised behaviour and provide the basis for expanded in-depth studies examining current rectal douching practices among MSM and TGW, and also provide microbicide developers with additional information for the development of a douche-formulated RM.

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Contributors JTG, JJK, CRN, JS and WE conceived and designed the study, CRN and JTG collected the data. JTG, JJK and CRN analysed and interpreted the data and drafted the first version of the article that JI, JS and WE critically reviewed and edited, leading to the final article that all authors reviewed and approved for publication.

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