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Prevalence and types of rectal douches used for anal intercourse among men who have sex with men in Brazil

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ABSTRACT

Introduction Rectal douching (RD) is practised among men who have sex with men (MSM), and various products and materials are used. There have been no studies in Brazil on this practice and its risks in the transmission of sexually transmitted infections and HIV.

Method Between June and August 2015, 401 MSM over the age of 18 were interviewed about their sexual practices associated with RD over the last 3 months. RD was associated with the reported sexual behaviour, and descriptive statistical analyses were conducted on the same.

Results Among the respondents, 85.6% identified themselves as men and 14.4% as transgender; 255 declared themselves to be white (63.6%) and 104 to be mixed (25.9%). From among those who had performed anal sex within the last 3 months (n=369), 197 reported having used RD (53.4%). The most commonly used material was a shower hose (84.5%) and the main product used was water (93%). Of those interviewed, 94.5% never received guidelines from health professionals on this practice and its potential risks. Receptive anal intercourse and RD were found to be associated ($p<0.001$).

Conclusions RD is a common practice among the MSM population. Health professionals must deepen their knowledge of this. We propose studies in Brazil on the practice of RD that—from that knowledge strategies for prevention and harm reduction—can be incorporated to the vulnerable populations.

Strengths and limitations of this study

- ► Pioneering study in Brazil.
- ► Basis for discussion of the issue in the country.
- ► Unrepresentative sample of men who have sex with men.

INTRODUCTION

Rectal douching (RD) is commonly performed before anal intercourse among men who have sex with men (MSM).[1–3] Several commercial and non-commercial devices, such as shower hoses, plastic bottles and syringes, are used.[4] Tap water and home-made solutions are most commonly used in RD. The primary reason for this practice is to clean the rectal cavity and therefore increase pleasure during sex.[5 6] However, this practice can alter anal tissues and is associated with risky behaviour that may facilitate the transmission of sexually transmitted infections (STIs) and the HIV.[1–4 6] HIV prevalence in Brazil is estimated to be 0.4% in the general population and 0.6% in the 15–49 years age group. Studies conducted between 2009 and 2013 in Brazil in the MSM population show an HIV prevalence rate of 10.5%.[7 8] One of the main avenues of the spread of HIV among MSM is receptive anal intercourse (RAI).[9] The proportion of cases among this group has tended to increase over the last 10 years, from 34.6% in 2004 to 43.2% in 2013.[7] Social, biological, behavioural and epidemiological studies are needed to understand social and sexual practices among the MSM population and therefore trace new preventive strategies due to risks related to anal sex.[5 9–11] This study aims to determine the prevalence of RD among MSM and to establish the main substances and materials associated with this practice.

METHOD

Study site

The study was conducted after being authorised by Report n° 1100371 (Certificate of Presentation for Ethical Consideration).

n° 45107215.7.0000.5375) by the ethics and research committee of the Reference and Training Centre (CRT/AIDS). The study was conducted in three different clinics of the CRT/AIDS: the transgender clinic; the clinic for monitoring patients with HIV/AIDS and the serological testing and counselling clinic.

Study population and inclusion criteria

The study included a population of MSM from CRT/AIDS regardless of serological HIV status and of 18 years of age or older. Respondents were included in the survey after voluntarily agreeing to participate in the study during a visit to the above-mentioned

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Table 1 Gender identity, age, race/colour, education, monthly income, STI, drug abuse and anal sexual intercourse among MSM (n=369)

	n=369	%
Gender identity		
Man	316	85.6
Transgender	53	14.4
Age (in years)		
18–29	175	47.4
30–39	129	35.0
40–49	51	13.8
50–59	12	3.3
60–66	2	0.5
Colour/race declared		
White	236	64.0
Mixed	95	25.8
Black	24	6.5
Other	14	3.8
Formal education		
Middle school finished/unfinished	29	7.9
High school finished/unfinished	86	23.3
Undergraduate student (complete/incomplete)/graduated	254	68.8
Total monthly income		
BRL 0–2000	175	47.4
BRL 2001–4000	117	31.7
BRL over 4000	77	20.9
STI over the last 12 months		
No	234	63.4
Yes	134	36.3
I don't know	1	0.3
Drug use during intercourse—last 12 months		
Yes	186	50.4
No	183	49.6
Anal intercourse		
Insertive anal intercourse only	79	21.4
RAI only	86	23.3
RAI and insertive	204	55.3

MSM, men who have sex with men; RAI, receptive anal intercourse; STI, sexually transmitted infection.

clinics to receive treatment or guidelines or to be tested for STI/HIV.

Participant recruitment for the study

Participants were recruited by researchers trained in advance. After agreeing to participate in the study, participants were taken into a room specifically set aside for this study at each of the clinics. There, they received all necessary information about the aim of the study and signed the Terms of Clarification and Freely Consenting (TFCC). After receiving a copy of the TFCC, participants answered a digital questionnaire using a laptop. Participants who had difficulty completing the questionnaire digitally were assisted by a field researcher to use the computer.

Data collection period

Data were collected between 20 June and 20 August 2015.

Research tools

The questionnaire addressed epidemiological issues (sex, age, race, origin and residence), sexual orientation and sexual practices (frequency and partners) and the use of commercial and non-commercial products when performing RD (types of products used, frequency of these practices and risk behaviours). The questions addressed practices during the last 3 months and the last month before the interview, for better time reliability. After being adjusted, the questionnaire was formatted in the free application Google Docs and tested in a pre-test.

Pre-test

The researchers used five questionnaires to test understanding of the content and to carry out adjustments to the instrument. These questionnaires were not included in the study.

Sample design and sample size

The methodology used to calculate the sample came from a convenience sample, considering a CI of 95% and a maximum sampling error of 5% and an estimated prevalence of RD use of 50%. For these calculations, the minimum sample should include 391 participants. The present study had 401 participants.[12]

Statistical treatment of the sample

Respondents were classified into two groups: those who use and those who do not use RD. Initially, the descriptive analysis of these two groups was conducted considering social and demographic variables. The following analysis was performed considering the variables for those in the group who performed RD. The categorical variables were tested with the χ^2 test or Fisher's exact test. The OR and the respective CIs were estimated. The tests used were bi-flow rates and the level of significance was $p<0.05$.

RESULTS

Of the research participants, 369 (92%) had anal intercourse in the past 3 months (table 1). Among these, 86 reported to have performed RAI and 50.9% responded having had RAI and insertive intercourse. Among MSM who had had anal intercourse within the last 3 months, 314 resided in the State of São Paulo (85.1%), 85.6% identified themselves as men and 14.4% as transgender. Among these, 236 declared themselves to be white (64%) and 104 declared themselves to be mixed (25.8%).

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Table 2 Rectal douching (RD) use in the last 3 months: solutions, products and equipment

		%
RD (n=369)		
Yes	197	53.4
No	172	46.6
Home-made products (n=181)*		
Water + soap	33	18.2
Water only	181	100.0
Commercial products and solutions (n=52)		
Fosfoenema	19	36.54
In-M	7	13.46
Minilax	3	5.77
I don't remember	5	9.62
Intimate liquid soap	3	5.77
Glycerin suppository	2	3.85
Disposable Kit purchased at pharmacy or store	13	25.00
Home-made equipment used (n=232)*		
Shower hose, bidet or sink	199	85.78
Plastic water pump	22	9.48
Plastic bottle	11	4.74

*Multiple choice.

Their average age in years was 31. With regard to schooling, 68.8% are undergraduate students (initiated or completed college/university) or graduate students. With regard to monthly income, the most frequent group (47.4%) had received an income of up to BRL 2000.00 Drugs used in connection with sex were: alcoholic drinks, marijuana, cocaine, viagra, cialis or levitra, poppers, ecstasy, ketamine, gamma-hydroxybutyric acid, crystal/methamphetamine, crack and lysergic acyd diethylamide. STIs acquired in the last 12 months by respondents were: hepatitis; chlamydia; genital, rectal or anal warts (human papillomavirus); gonorrhoea; rectal gonorrhoea; genital herpes; syphilis and HIV.

According to table 2, of those who performed anal intercourse within the last 3 months (n=369), 197 reported RD use (53.4%). The participants declared having used more than one type of product, solution or equipment to perform RD. To clean the rectal canal, the main solution used was water (100.0%), followed by water and soap (18.2%). The main equipment used was a shower hose, a bidet or a sink (85.4%).

Among the 197 participants who used RD, the main reasons for the practice of RD before sex were cleanliness or hygiene and greater pleasure during anal intercourse. The main reasons among those who reported 'sometimes or never' performing RD before anal intercourse regarded it as 'unnecessary' or 'disliked the practice'. Among the RD after anal intercourse group, respondents mainly regarded it 'unnecessary' or declared themselves to 'have used a condom'. The greatest difficulties reported when performing RD were pain and bleeding (table 3).

Table 3 Reasons for the practice of rectal douching (RD) and difficulties associated with RD before and after receptive anal intercourse in the last 3 months (n=197)*

	n	%
Reason—RD always BEFORE		
Cleaning/hygiene	84	42.6
More pleasurable anal intercourse	34	17.2
It is a preference of the partner	6	3.0
Constipation	1	0.5
Reason—RD sometimes or never BEFORE		
Unnecessary	69	35.0
Do not like it	53	26.9
Unplanned sexual encounter	46	23.4
Did not have time	43	21.8
Have no information on RD	6	3.0
Think it is unhealthy	1	0.5
Reason—RD always AFTER		
Cleaning/hygiene	21	10.7
Partner did not use condom	7	3.6
Previous RD was not adequate	1	0.5
Reason—RD sometimes or never AFTER		
Unnecessary	153	77.7
I had sex with a condom	136	69.0
Unplanned sexual encounter	34	17.2
Ignorance	4	2.0
Hygiene	3	1.5
I don't like it	2	1.0
I evacuated afterwards	1	0.5
I've read that it isn't recommended	1	0.5
I used a laxative product	1	0.5
Difficulties—RD		
Pain	33	16.8
Bleeding	13	6.6
Trauma/injury to the anus	13	6.6
Cramps	4	2.0
Nuisance	2	1.0
Burnt	2	1.0
Medical contraindication	1	0.5
Presence of haemorrhoids	1	0.5
Dryness	1	0.5

*Multiple choice.

In simple logistic regression, there was an association between RD use among those who have RAI ($p<0.001$), as seen in table 4.

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Table 4 Rectal douching (RD) prevalence and participants' sexual behaviour (n=369)

		RD—last 3 months						OR (CI 95%)	
		No		Yes					
		N	%	n	%	Value of p	OR	Inferior	Superior
Receptive anal intercourse	No	70	19.0	11	3.0	<0.001	1		
	Yes	102	27.6	186	50.4		11.60	5.88	22.91
Partner	Men only	158	42.8	187	50.7	0.238	1		
	Men and women	14	3.8	10	2.7		0.60	0.26	1.40
Guidance from health professional on RD	No	166	45.0	183	49.6	0.133	1		
	Yes	6	1.6	14	3.8		2.12	0.80	5.63
Paid for sex—last 12 months	No	143	38.8	158	42.8	0.468	1		
	Yes	29	7.8	39	10.6		1.22	0.72	2.07
Drug use during intercourse—last 12 months	No	92	24.9	106	28.7	0.951	1		
	Yes	80	21.7	91	24.7		0.99	0.66	1.49
Intercourse with HIV-positive partner—last 12 months	No	43	11.7	57	15.4	0.585	1		
	Yes	44	11.9	43	11.7	0.301	0.74	0.41	1.31
	Does not know	85	23.0	97	26.3	0.550	0.86	0.53	1.41
HIV test result	Negative	126	34.1	148	40.1	0.008	1		
	Positive	19	5.2	36	9.8	0.121	1.61	0.88	2.95
	Does not know	27	7.3	13	3.5	0.013	0.41	0.20	0.83
Sexually transmitted infection over the last 12 months	No	117	31.7	118	32.0	0.106	1		
	Yes	55	14.9	79	21.4		1.42	0.93	2.19

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DISCUSSION

The results of this study indicate that the practice of RD is common among the MSM population before RAI, with a prevalence of 53.4%. These results are consistent with other studies showing prevalence of 52– 66%.[6 11 13] This study has revealed that RD is performed with home-made products and materials and objects not designed for this purpose. Among those who used non-commercial products (n=233), 199 used a shower hose to introduce water into the anus (84.5%). These results are consistent with a study conducted with participants from five continents concerning RD-related practices, where 93% of the respondents (n=1339) reported using non-commercial products (93%) and water (82%) to perform RD. The study indicates a 74% increased risk of STI/HIV between those who use RD and those who do not perform it (OR=1.74; 95% CI, 1.01 to 3.00).[6] These findings indicate that RD is associated with risky behaviour. Studies on the MSM population commonly investigate the prevalence of STI/HIV among this population; however, these studies do not usually address the behavioural aspects related to the information on beliefs and values of sexual practices in specific populations of greater vulnerability. A study on the use of RD in 16 US cities conducted through an online questionnaire with 4992 MSM respondents indicated that 52% use RD, 43.3% perform it often and 87.6% use RD before sex and 27.4% after sex. Among those who performed RD after sexual intercourse, the main reason was to prevent STI/HIV infection (12.7%). The main product used was tap water (65.7%). The authors question the contradiction in the risk of changing the rectal epithelium attributed to the use of water to perform RD, considering that intimate lubricants are water based.[13] This question is relevant because scientific literature generally affirms that RD removes beneficial bacteria and the surface layer of the intestinal epithelium, which could potentially increase the risk of HIV transmission among MSM.[5 13] However, research on these practices is insufficient, even though several guidelines on the practice of anal intercourse are provided to patients by health professionals.[14] Our study demonstrated that 94.6% of the participants have never received professional guidance on the practice of RD. Health professionals should deepen their knowledge of RD in the MSM population. New prevention strategies have been proposed, such as pre-exposure oral therapy. The use of gel or rectal microbicides in showers has also been studied in the MSM population. Understanding the use of RD in Brazil will determine the feasibility of introducing these possible HIV transmission prevention strategies in this vulnerable population.[1–4 15] The study was conducted at a state reference research centre for prevention and treatment of STI and HIV, which complies with the Ministry of Health's public policies for the prevention and treatment of patients with STI and HIV in Brazil. The public health policy of the country guarantees serological tests for the detection of HIV and other STIs as well as treatment and follow-up through the Unified Health System to the population. Collecting data in such institutions allowed the recruitment of patients undergoing the antiretroviral therapy treatment and members of the MSM population who were in the clinic either to get serologically tested or to receive guidance from health professionals. This was a large, clinic-based sample, but the findings cannot be generalised for the whole MSM population. New studies on the subject should be conducted to understand this practice in the various regions of the country. The instrument used for data collection (online questionnaire) provided quick responses and proved to be a practical way of organising the collected data. The room set aside for the task and the use of a computer prevented external interference that could inhibit responses.

CONCLUSIONS

The use of RD is a common practice in the MSM population. Health professionals need to deepen their knowledge of this matter. Further studies are needed to understand this practice in Brazil among the MSM population. From these studies, new knowledge and strategies may be proposed for the prevention of STI/HIV in this vulnerable population.

Contributors LCRL: study conception and design, interpretation of results, drafting of manuscript; RJCS: supervision of data analysis, interpretation of results and manuscript preparation.

Competing interests None declared.

Ethics approval Research ethics committee (CEP) of the Center for Reference and Training—CRT/AIDS, State of So Paulo, Brazil.

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