

Research Article

College Men's Knowledge of Vaginal Douching

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Submitted: 30 March 2017

Accepted: 28 September 2017

Published: 30 September 2017

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Abstract

Background: Women persist in vaginal douching despite known negative health consequences associated with its practice. Women often douche due to being taught by their mothers and grandmothers or their perceived sexual partner's preferences. However, little is known about men's knowledge and attitudes regarding douching. This study examined male's knowledge of female vaginal douching and discussions they have had about douching.

Methods: Participants completed a 45 question survey on douching exposure, knowledge, and attitudes. Undergraduate and graduate males ($N=89$; $M_{age}=27.20$) were approached by researchers during class-change periods.

Results: Most men (62%) reported exposure to douching and knew someone who douches (41%) but just 39% reported having a discussion about douching. Only 3% discouraged douching in this discussion and many recommended douching to help with cleanliness (50%) or vaginal odor (25%). Though most men (83%) were willing to discuss douching, only 14% would discourage it. Reasons for not discussing douching with a partner included not knowing what to say (46%), feeling it was not their place to discuss it (45%), discomfort with the subject (34%), and that their spouse did not want to hear about it from them (36%).

Conclusions: Previous research suggests males could influence female douching and hygiene; however, college males may not believe they have a role in these discussions and may not have the knowledge of douching needed to have such discussions. Providing education about the risks and consequences of douching, for the health of both partners, should be encouraged to promote dialogue and discussions of feminine hygiene.

Keywords

- Vaginal douching
- Male knowledge
- Douching discussions
- Feminine hygiene

ABBREVIATIONS

STI: Sexually Transmitted Infection; HCP: Health Care Provider

INTRODUCTION

Previous research has shown that douching may affect a several aspects of a woman's gynecological and reproductive health, such as increasing her risk cervicitis [1,2], endometritis, upper genital tract infection [3], ectopic pregnancy [4-8], premature or low-birth weight delivery [9,10], pre-term labor [11], and infertility [12,13]. Douching has also been shown to increase the risk of contracting sexually transmitted infections (STIs) [14], human immunodeficiency virus (HIV) [1,2,14-18], the genital human papillomoma virus (HPV) [19], ovarian cancer [20], pelvic inflammatory disease [7,8,10,11,15,21-14], and bacterial vaginosis [10,25-33].

Despite these risks, many women continue douching practices. Approximately 15.7% of 15-19 year-olds and 25.7% of 20-24 year-olds have douched within the last 12 months (i.e., currently douche) [34] and between 64% and 79% of 12-

25 year-olds that have ever douched [1,35-37]. These estimates are substantially lower compared to some African countries, where as many as 90% of women engage in "vaginal cleaning" practices [38]. Therefore vaginal douching is a relatively widespread practice in adolescent and young adult women, despite well demonstrated and reported negative health consequences.

However, getting women to discontinue douching has been difficult. Many women perceive douching as beneficial, reporting that it makes them feel fresh, clean, or confident [1,27,37-43]. This likely leads to increased douching during their menstrual cycle and after coitus [1,27,37,39,40,42,44-46], or to alleviate symptoms of a STI or vaginal infection [27,36,39,45]. Despite knowledge of health-risks associated with douching, women may be resistant to the cessation of douching, even though the practice of douching itself may contribute to and perpetuate their symptoms [40,47,48].

In order to prevent the practice of douching, it is important to understand its influencing factors. Previous research indicates that a young female's likelihood of douching is affected by whether they have had conversations about douching with women that

douche [27,40-42,45,48-52]. Unfortunately, conversations are most likely to happen with women who either currently or have previously douched, encouraging its future practice [52]. Women also are likely to look to their health care provider (HCP) for information pertaining to sexual health and hygiene [42,43,52]. However, little is known about men's potential impact on female douching and hygiene. Previous research has demonstrated that men's preferences impact female sexual hygiene differently among various cultures [38,53]. One study found that Latino men support douching due to a cultural value of vaginal cleanliness, thus increasing the likelihood that Latino women will douche [54]. Other studies have found that despite an increased risk for infection and STI contraction, women in Africa engage in dry sex due to male preference [55,56]. Also, among topical microbicide research, women report that their partner has an influence in their use of topical microbicides [57,58]. For example, Montgomery et al., [57] found that though topical microbicides are intended to be a "woman-controlled" contraceptive, men played a large role in determining whether and how it was used. However, while some women endorse a role for male partners to play in topical microbicide use, attitudes vary [59].

These studies suggest that women do not make completely independent decisions regarding different aspects of sexual hygiene and health, and they are likely to consider the preferences of their partners in their decision making. Therefore, in order to decrease the incidence of vaginal douching, educating men about the ill-effects of douching and altering their attitudes and opinions may be an effective strategy. However, before focusing on men as a possible point of intervention to decrease female douching, more information is needed men's knowledge and attitudes about female douching. Therefore this study aims to explore the experience with, knowledge of, and attitudes of vaginal douching in college males.

MATERIALS AND METHODS

Participants

Male undergraduate and graduate-level students attending the University of Houston-Clear Lake were asked to voluntarily participate in a study on douching exposure, knowledge, and attitudes. The university is a non-traditional institution in which some students transfer to the school after completing requisite hours of education at a community college, or after their sophomore year at the University of Houston. Additionally, many of the students have already had a career and have returned to school later in life. Therefore, the university's undergraduate students tend to be older than other universities.

Ethics, Consents, Permissions. Informed consents were obtained from each participant and the study was explained. Men who consented completed an anonymous and confidential survey. This study was approved by the Institutional Review Board at the University of Houston-Clear Lake.

Procedures

Participation consisted of a 10 minute, 45 question survey regarding race, education level, and sexual history. The survey is descriptive in nature and was adapted from previous literature [52] and to reflect men's experience with, attitudes,

and knowledge about douching. Questions targeted previous experience and knowledge with douching, previous and/or planned conversations that have been had about douching, opinions about the usefulness or harmfulness of douching, and their attitudes regarding the relevance of female douching to their lives. Participants were asked about previous exposure to the subject of douching (i.e., "Have you ever been exposed to feminine douching?"), and if previous exposures or discussions were had, where did the exposure come from (e.g., TV, friend, family member, girlfriend/spouse), and what information was discussed. Individuals also estimated what percentage of women douche and indicated why women should (e.g., hygiene/cleanliness, health, infections) or should not douche (e.g., harmful, not needed, "none of my business." Men also indicated what they have said to women or would say to women about douching (e.g., her problem or issue, do it if she wants to, for sexual hygiene, it treats vaginal infection), and rated how the relevance of douching to their lives. Some questions were in a yes/no format (e.g., "Do you know someone who has douched previously?"), "Have you ever had a discussion about feminine douching?"), while others were presented as a list of choices and the participant was asked to "choose only one" or to "choose all that apply." Several questions provided space for participants to describe an "other" response. These responses were independently coded and compared for inter-rater agreement. Disagreements were resolved by the lead author.

Statistical analysis

Data were analyzed using Statistical Analysis Software v. 13.1 (SAS). Descriptive statistics were calculated for each response. Chi-squared tests of independence were used to compare responses by men who know someone who currently douches or has previously douched to those who do not, and men who are willing to discuss douching to those who are not. A $p < .05$ was considered to be significant for all analyses.

RESULTS AND DISCUSSION

Demographic information

Eighty-nine men participated in the study ($M_{age} = 27.2$ years, $SD = 7.94$, range 20 to 63). Sixty-three percent were Caucasian, 22% Hispanic, 7% Asian, 5% Indian/Middle Eastern, and 3% African-American. Fifty-one percent of the participants had attained an associate's degree, 29% a Bachelors degree, 17% reported some college, and 3% were pursuing post-graduate degrees.

Sexual Relationship history

Eighty-nine percent of participants reported ever engaging in sexual intercourse. Those who had engaged in intercourse reported between 1 and 50 lifetime partners ($n = 72$, $m = 10.89$, $sd = 15.16$) and 1 and 100 intimate relationships ($n = 86$, $m = 10.5$, $sd = 19.27$). Of those relationships, on average 4.96 ($n = 79$, $sd = 12.59$) were with friends and 5.41 ($n = 85$, $sd = 10.52$) were considered girlfriends.

Douching exposure, knowledge, and attitude

Sixty-two percent of men indicated that they had been exposed to douching, most commonly by a television advertisement

(49%), seeing a douching product in the cabinet (38%), a conversation (38%), learning about it in class (25%), seeing a douching product in a magazine (19%), or the internet (10%). "Other" responses (38%) included exposure through others (i.e. mothers, family, and significant other. Most individuals (81%, $n = 74$) exposed to douching reported the information gained was positive or neutral.

When asked to report the percentage of women that they think douche, 26% of men thought that between 1 and 20% of women douche, 34% said between 20 and 40%, 28% between 40 and 60%, and 12% felt that 60% or more of women douche. Several (41%) reported knowing a woman that douches, including a girlfriend ($n = 12$), spouse ($n = 7$), mother ($n = 17$), sister ($n = 7$), friend ($n = 15$), aunt ($n = 7$), relative ($n = 3$), or grandmother ($n = 1$).

Participants were also asked to indicate whether they would want their significant other to douche. A little over half (53%) said no, while the others said yes (42%) or do not care. The men were then asked to indicate why they do or do not want their partner or women in general to douche (Table 1). Sixty-five percent said women should douche and 30% said no. Of those that would want their partner to douche, the most common reasons included cleanliness, vaginal odor, and feeling good and fresh (see Table 2). Additionally, men who knew a current doucher were more likely to think that women should douche (80%) than men who did not know a doucher (56%), $\chi^2(3) = 10.527, p = .015$.

Douching discussions given to subject

Participants also were asked to provide information on whether they had ever been involved in a discussion about douching. Thirty-nine percent reported receiving at least one discussion on douching, with the first discussion occurring between 10 and 48 years of age ($m = 18.39, sd = 6.61$). This discussion most commonly occurred with their girlfriend or spouse (42%), friend (30%), or mother (15%). Other responses (6%) included a grandmother ($n = 1$) or a friend's mother ($n = 1$). The context in which the first discussion occurred is listed in Table 3. During this discussion, 24% of participants encouraged douching and 73% were neutral; one person discouraged it. Many participants endorsed douching to help with cleanliness (50%), treat vaginal odor (25%), prevent vaginal infection (7%), or prevent pregnancy (4%). Only 4% said that douching could cause vaginal irritation, damage the vagina, or that a woman's body should clean itself.

Of individuals who reported having had a discussion about douching, 51% reported also having a second discussion between 12 and 27 years of age ($m = 19.6, sd = 3.98$). These conversations occurred with a friend (56%), girlfriend or spouse (29%), mother (6%), or sister (6%). The content of the second discussion and reasons for recommending douching were similar to the first discussion. Context for the first and second discussions are outlined in Table 3.

Of individuals that received a discussion on douching, ratings for the first and second discussions were similar. For both discussions, over 85% rated the discussion as "excellent", "good", or "fair". The remaining 13% were unsure or rated the discussion as "poor." Additionally, 38% of these men asked questions after

Table 1: Reason for Wanting or Not Wanting Their Partner to Douche.

Want Partner to Douche		Do Not Want Partner to Douche	
Hygiene/Cleanliness	49%	Harmful/Dangerous/Bad	23%
Health	13%	Unnecessary/Not Needed	21%
Don't Care	10%	Homosexual or Single	18%
No Specific Reason	10%	None of My Business/ Her Choice	9%
Their Choice/ If Want/ Need To	8%	No Reason/ I Don't Know	9%
Infections	5%	Don't Care	9%
Sexual Health/Pleasure	3%	Does Not Know What Douching Is	9%
General Benefits	3%	Using Contraceptive So Not Needed	2%

Table 2: Reasons for Douching.

	Why Women Should Douche (n = 59)	Why Women Think They Should Douche (n = 82)
Cleanliness	90%	94%
Feel Good and Fresh	56%	70%
Treat Vaginal Discharge	22%	27%
Prevent Vaginal Discharge	24%	24%
Treat Vaginal Infection	24%	24%
Prevent Vaginal Infection	37%	29%
Prevent Pregnancy	12%	16%
Remove Menstrual Blood	40%	49%
Hygiene for Sex/Foreplay	36%	48%
Prevention of STD	12%	13%
Vaginal Odor	70%	68%
Vaginal Itching	40%	45%
Avoid Going to Doctor	7%	13%
To Please You/Their Partner	24%	34%
When Partner Asks	10%	17%
Everyone Does It	3%	7%
Don't Know	2%	2%
They Want/Need To	2%	0%
Personal Confidence	2%	0%

Table 3: Context in Which Douching Discussions Occurred.

	First Discussion (n=34)	Second Discussion (n=18)
They Brought It Up	23%	39%
You Asked About It	20%	27%
Sexual Relationships	18%	0%
Feminine Hygiene	15%	11%
Jokes/Name Calling	9%	11%
Menses	6%	6%
Vaginal Problems/ Complaints	3%	6%
Saw It and Had Questions	3%	0%
Smell	3%	0%

their discussion. These questions mostly related to logistical practices (why, how often, and how it is done, and who taught her).

Discussions subjects will give to others

Participants also were asked questions about their willingness to discuss douching with others, what they would say about douching, whether douching is of relevance to their lives. Eighty-three percent ($n = 74$) participants stated that they would be willing to discuss douching in the future, but only 14% of them would discourage it. The remaining 86% would either encourage douching ($n = 33$) or remain neutral ($n = 30$). Additionally, men who were willing to discuss douching also were more likely to encourage it (44%) than men who were not willing to discuss douching (29%), $\chi^2(=8.616, p = .035)$. For those who said that they would discuss douching, most would say that it helps with cleanliness (57%) and treats odor (39%). Others would say that douching is not birth control (24%), prevents infections (23%), is unnecessary (23%), can cause vaginal infection (17%), can treat vaginal infection (14%), or that the body should clean itself (13%). Sixty-three percent of men also gave reasons why they would not discuss douching, such as they would not know what to say (46%), it is not their place (45%), she does not want to hear about douching from them (36%), they would not be comfortable with the subject (34%), and she would not be comfortable with the subject (21%). Other responses regarding what men plan to say during a douching discussion and reasons not to discuss douching are located in Table 4.

Although most men would be willing to discuss douching, only 44% ($n = 39$) felt that douching is relevant to them. Overall, most did not find it relevant because they were not in a relationship with a female (29%) or it was not important in their lives (22%). Only

26% found it relevant because douching impacts women in their lives, another 11% were concerned with protecting themselves from STDs. Five percent said their partner's cleanliness and odor is relevant and 1% felt that it is relevant because they may have a daughter in the future. Respondents stated that their partner's health, cleanliness, and hygiene would have an effect (33%), douching could affect their significant other or spouse (22%), it is relevant because they are sexually active (15%), they are concerned with protecting themselves from STDs or pregnancy (15%), and it is relevant to them because they are single (4%). Forty-four percent of the sample said they would be interested in learning more about douching and 56% added that they would find information on douching useful.

DISCUSSION

This study found that many college males have been exposed to female douching and several have had discussions about douching, often with their spouse or significant other (61%). As such, for many of the men that participated in this study, douching was not a completely novel topic. However, men who reported knowing a current doucher were more likely to think women should douche than men who did not know a doucher. Further, men who were willing to discuss douching were more likely to encourage it than men who were not willing to discuss douching. Therefore, men may be a point of intervention to decrease douching in women, as current knowledge and attitudes of men may actually serve to increase and promote douching.

Similar to research with females, males in this study reported many benefits to douching. Men tended to endorse douching for cleanliness, to remove menstrual blood, alleviate vaginal itching or odor, it feels good, and to treat infections, all of which have been endorsed by women participating in previous douching research [1,27,32,39-42,52]. Few men endorsed items regarding douching being an unnecessary practice, causing irritation, or that a woman's body should clean itself. Therefore, similar to the challenge with women, of men that are familiar with douching, their knowledge is primarily positive and view douching as a beneficial form of feminine hygiene [1,27,37-39,41,42,52,53].

Several men in the study reported wanting their specific partner to douche, and over half of the participants want women in general to douche. Just over one third of the sample has had a discussion about douching, many with a significant other or a friend; however, the impact of these discussions typically serves to promote douching rather than discourage it, with only a few men discouraging its use and a majority expressing either positive or neutral attitudes. Previous research shows that women who douche are more likely to discuss douching with younger females and are likely to encourage its use [42,52]. Likewise, men who have had a discussion about douching may also be more apt to encourage its use, perpetuating the practice of douching among females.

Overall, a majority of men (83%) also seemed willing to discuss douching with women, but only a small number of them (14%) would discourage its use. Additionally, less than half of the sample (44%) felt that douching was relevant to them and felt that it was not their place to discuss douching or that either they or their spouse would be uncomfortable with the subject material.

Table 4: What Men Plan to Say About Douching and Reasons Not to Discuss Douching.

Plan to Say About Douching (n = 70)		Reasons to Not Discuss Douching (n = 56)	
I would ask questions	9%	Someone else would discuss	14%
Helps prevent STD	6%	Would not want her to	4%
Make you more at risk for STD	4%	None of my business	2%
Cause vaginal odor	4%	Not my body	2%
Damage girl's virginity	3%	Consult someone more knowledge	2%
Prevents pregnancy	3%	Don't know possible side effects	2%
Do it if you want	3%		
Use bi-monthly or every other month	3%		
Do it if a doctor tells you to	1%		
Need to learn more pros and cons	1%		
Its relative to that person	1%		
Do it for confidence	1%		
May cause possible health problems	1%		

It is possible that if men do not feel that douching is a topic that is relevant to them, then they may lack motivation to discuss the topic with a significant other. However, for those that are willing to discuss it, interventions may be needed, considering that men who know doucher or have had a discussion about douching were more likely to encourage or support its use. Thus, this has several implications for clinical practice and future interventions.

Implications for practice

This study suggests that men lack knowledge regarding the negative consequences of douching, and may even perpetuate its practice. However, many men expressed a willingness to discuss douching in the future. Education is needed to ensure that men have accurate information regarding the harms of vaginal douching, not only to their female partner, but potential effects on their own sexual health and activity. This may encourage men to discourage douching with the females in their lives. Though a logical leap, in addition to primary care physicians, men may be able to play a role in breaking the intergenerational cycle [42,52] that perpetuates douching; but they must first be educated so that they can provide accurate information to women in their life. Such education should not only include the negative health consequences associated with vaginal douching as specific to their partner, but also how their partner's sexual health can be related to their own sexual health. Thus, educational interventions that may have the greatest impact are those that teach males about douching in ways that make it relevant to them and show how it can have a negative impact on them.

Study limitations

Limitations of this study may include a sample bias towards men of a higher educational background. Since participants were undergraduate and graduate students, their additional education may have resulted in more information about douching than men with less education. This would suggest that the knowledge level projected in this sample may be not be average. Additionally, these results may not be generalized to non-college educated men, or older men who have greater long-standing relationships, and may subsequently have greater knowledge about douching, its practice, and risks. Also, this study also did not assess for sexual orientation; thus, it is not known to what extent the results of this study generalize to a homosexual or bisexual versus heterosexual population. Also, these results pertain only to the transmission of information in heterosexual or bi-sexual (i.e. male to female) relationships, and may not be indicative of douching knowledge and discussions that take place in women who have sex with women. Also, the use of a self-administered questionnaire limited the amount of detail obtained about douching related knowledge and attitudes. Future studies should examine different ways to educate men about douching and female hygiene, and whether or not women are likely to consider information from their significant others when making decisions about hygiene and sexual hygiene behaviors.

SUMMARY

Little research has been done regarding men's knowledge of female hygiene and sexual hygiene behaviors. Some literature has suggested that male preference and attitudes affect female

sexual health practices, such as topical microbicide use [57,58], condom use [60,61], and HIV-prevention methods [62]. However, research also is sparse on the potential impact of men's attitudes and opinions on such behaviors in women. This study suggests that if men are to be thought of change agent to reduce douching, they must first be educated about the accuracies of douching. For motivational purposes, it would also be beneficial to teach them ways in which the topic of douching and other female hygiene may impact them (e.g., STI infection, spread of bacterial infections, causing infections and irritation for their partner). The results from this study encourage future research and efforts to reduce douching and suggests a need to account for and improve men's knowledge of douching. Additional work is needed on the potential role and impact of their opinion on partner sexual hygiene behaviors.

ACKNOWLEDGEMENTS

The authors wish to thank Angela Burgess, Lora Black, William Devine, and David Roach for their support in data collection and data management, and all of the men for their participation in this research study.

Declarations and Conflict of Interest

This study received ethics approval from the University of Houston – Clear Lake institutional review board. This manuscript contains no personal details or information, and does not require consent for publication. Data used in the analyses for this publication can be obtained by contacting the corresponding author. There are no competing interests to report, declarable funding. Dr. Black assisted in data collection, analysis, manuscript preparation, and submission. Dr. Short was engaged in study design and conceptualization, data analysis, and manuscript preparation.

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Cite this article

Black WR, Short MB (2017) College Men's Knowledge of Vaginal Douching. *JSM Women's Health* 2(1): 1006.