

# Characterization of Frequent Douchers Attending a Community Clinic Primarily Serving African-American Women

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**Objective:** The purpose of this study is to characterize African-American women attending a community clinic who report frequent douching (douching  $\geq 2$  times per week).

**Methods:** A consecutive sample of 115 black women attending a community clinic were interviewed face-to-face about their douching practices. Logistic regression was used to control for age and compute odds ratios and 95% confidence intervals.

**Results:** Of the 115 women interviewed, 93% (107) had douched sometime during their lifetime; 16% (18) reported douching  $\geq 2$  times per week. Frequent douchers compared with women who douche  $< 2$  times per month were more likely to report douching after sex [89% (n=16) vs. 49% (n=32), odds ratio (OR): 5.35, 95% confidence interval (CI): 1.09, 26.2] or after discharge [89% (n=16) vs. 58% (n=38), OR: 8.11, 95% CI: 1.64, 40.1], and self-report a history of gonorrhea [28% (n=5) vs. 8% (n=5), OR: 4.87, 95% CI: 1.07, 22.2].

**Conclusion:** Further research should be done to understand the use of douching as an STD/HIV prevention method and the association between sexual risk behaviors and douching practices.

**Key words:** vaginal douching ■ African-American women ■ sexually transmitted diseases ■ HIV/AIDS

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## INTRODUCTION

Vaginal douches are the second leading feminine hygiene product sold in the United States.<sup>1</sup> Nationally, 16% of adolescent girls aged 15-19 years and 28% of those aged 20-24 years practice douching.<sup>2</sup> Douches remain popular, despite the fact that the practice of vaginal douching has been linked to bacterial vaginosis,<sup>3,4</sup> pelvic inflammatory disease (PID),<sup>1</sup> infertility,<sup>5</sup> ectopic pregnancy,<sup>6</sup> low birthweight,<sup>7</sup> and HIV.<sup>8</sup> Although some studies have linked douching to sexually transmitted infections (STI),<sup>9,10</sup> recent prospective evidence found no association between douching and STIs.<sup>11</sup> Nonetheless, the putative biological effects of douching are the disruption of protective vaginal flora or the propulsion of sexually transmitted pathogens into the upper reproductive tract.<sup>12</sup> In addition to these potential biological adverse effects, some young women may believe that douching after sex prevents HIV transmission,<sup>13</sup> a belief which may lead some women to engage in unprotected sex. Both biological and behavioral adverse effects may come from douching.

"Feeling fresh and clean" predominates as the main reported reason for douching among African-American women.<sup>6,14-17</sup> Other reasons for douching include after sex<sup>15</sup> and before menses.<sup>18</sup> Many of the studies' findings were assessed from a comparison of women who have ever douched with women who have never douched. Grouping women who have ever douched into one category categorizes women who douche once or twice a year with women who douche once a week. Important differences, however, that distinguish the frequent douchers (women who douche more than once per week), the group at highest risk of the consequences of douching, may be diluted from such wide categorization.<sup>19</sup> From a social marketing perspective, understanding factors associated with frequent douching may facilitate the development of specific and effective targeted interventions to a group at high risk of the consequences of douching.<sup>20</sup>

The purpose of this pilot study is to characterize African-American women attending a community

clinic who report douching  $\geq 2$  times per week. The historical and cultural context of douching among African-American women will be reviewed.

## MATERIALS AND METHODS

### Study Setting and Participants

The pilot study was conducted at a clinic located in South Central Los Angeles that provides primary and reproductive healthcare to predominantly African-American and Latina women: 59% African-American, 23% Latina, 13% Asian, 4% other and 1% white. The clinic serves over 3,600 female patients annually. Previous researchers have found that douching behavior varies by race and ethnicity, a potential confounder.<sup>2,3,17,21</sup> Therefore, we restricted our sample to include only African-American women to remove the confounding effects of race and ethnicity and to improve the precision of our estimates. Eligible participants also had to be  $\geq 18$  years of age.

Upon arrival, patients registered at the intake desk and completed a medical history form with the intake clerk. Two trained interviewers called patients sequentially from the register list and, in a private enclosed room, assessed eligibility and willingness to participate. Participants were interviewed before seeing a clinician and were compensated \$5 for their time. UCLA Office for the Protection of Research Subjects approved the study.

### Interview

From June to September 2001, face-to-face interviews were conducted with 115 women of African descent (88% were born in the United States); refusal rate was 5% (6/121). After giving written informed consent, participants were asked about their sociodemographic characteristics, previous STD diagnoses (e.g., chlamydia, gonorrhea, syphilis, trichomoniasis, HIV/AIDS, pubic lice, PID), family history of cancer, recent Pap exams, current frequency and most recent episode of vaginal douching, and current reasons and solutions used for vaginal douching. Survey questions were informed by a literature review of PubMed and PsycInfo databases using keywords "douche", "African-Americans", "attitudes" and "behavior". In addition, we met with groups of the clinic staff to develop the questionnaire and pilot-test the instrument prior to submission to the institutional review board. The clinic staff and the clinic's quality assurance committee approved the content of the questionnaire before implementation.

### Analysis

Descriptive statistics and distribution of responses were computed for each question. Pearson Chi-

squared analyses were used to determine demographic correlates of women who have ever douched and women who douche  $\geq 2$  times per week. To assess the consistency of our findings, we further stratified the douching frequency response into three mutually exclusive categories: women who douche  $\geq 2$  times per week, women who douche two times per month and women who douche  $< 2$  times per month. We used Pearson Chi-squared analyses to examine the association between selected behavioral and demographic characteristics among women who douched  $\geq 2$  times per week and women who douche two times per month compared with women who douche  $< 2$  times per month. Characteristics with a P value of  $< 0.20$  were entered into separate logistic regression models that controlled for age. Odds ratios (ORs) and 95% confidence intervals (CIs) were computed.

## RESULTS

Characteristics of the study sample are presented in Table 1. Of the 115 women interviewed, most were of childbearing age, never married, unemployed and earned low income. Reasons for clinic attendance were as follows: 59% (68) attended the clinic for a general check-up; 17% (20) had accompanied a relative to his or her appointment; 9% (10) were seeking help for nongynecologic problems; 6% (7) for pregnancy screening; 5% (6) for gynecologic problems; 3% (3) for birth control; and 3% (3) for other prescription refills. Only 7% (8) of the women indicated they had never douched during their lifetime; 16% (18) reported they douched  $\geq 2$  times per week. Of the women who indicated they had douched sometime during their lifetime, mothers (57%) were most often named as influencing the initiation of vaginal douching, followed by friends (11%), sisters (10%) or grandmothers (4%). Women age 25–34 ( $n=43$ ,  $P=0.03$ ) and Medi-Cal recipients ( $n=70$ ,  $P=0.03$ ) were significantly more likely to report they have ever douched. Demographics did not differ remarkably between women who did and did not douche  $\geq 2$  times per week.

Table 2 presents the sexual history, Pap exam history and reasons for douching among women who douche  $< 2$  times per month ( $n=65$ , less frequent douchers), women who douche two times per month ( $n=24$ ) and women who douche  $\geq 2$  times per week ( $n=18$ , frequent douchers). Frequent douchers compared with less frequent douchers were more likely to report a regular sex partner [94% ( $n=17$ ) vs. 73% ( $n=47$ ),  $P=0.06$ ]. Self-reported previous gonorrhea infection was more prevalent in the frequent douchers compared with the less frequent douchers [28% ( $n=5$ ) vs. 8% ( $n=5$ ),  $P=0.02$ ] and slightly more prevalent in women who douche two times per month compared with less frequent douchers [21%

(n=5) vs. 8% (n=5); P=0.08].

Nineteen (18%) women who had ever douched

reported that they were told not to douche before a Pap exam. Of these 19 women, 13 reported a doctor

**Table 1. Characteristics of the African-American female study participants, attendees at a Los Angeles community clinic, 2001**

Category	Total Sample (n=115)	Ever Douched (n=107)	Douche ≥2 Times per Week (n=18)
	n* (%)	n* (%)	n* (%)
<i>Age Group</i>			
18-24	23 (20)	18 (17)	3 (17)
25-34	45 (39)	43 (40)	6 (33)
35-44	36 (31)	36 (34)	5 (28)
45-53	11 (10)	10 (9)	4 (22)
<i>Last Grade Completed (Years)</i>			
High school (9-12)	85 (75)	78 (73)	13 (72)
College (13-16)	26 (23)	25 (23)	4 (22)
Grad school (≥17)	3 (2)	3 (3)	1 (6)
<i>Marital Status</i>			
Never married	76 (66)	71 (66)	11 (61)
Married, with partner	14 (12)	13 (12)	2 (11)
Married, without partner	6 (5)	6 (6)	2 (11)
Separated	9 (8)	8 (7)	1 (6)
Divorced	7 (6)	7 (7)	2 (11)
Widowed	3 (3)	2 (2)	0 (0)
<i>Employment</i>			
Yes, ≥40 hours	12 (10)	11 (10)	1 (6)
Yes, <40 hours	22 (19)	20 (19)	5 (28)
No	81 (70)	76 (71)	12 (67)
<i>Individual Income</i>			
0	2 (2)	1 (1)	1 (6)
\$1-\$5,000	15 (13)	14 (13)	1 (6)
\$5,001-\$10,000	36 (31)	33 (31)	8 (44)
\$10,001-\$15,000	29 (25)	28 (26)	5 (28)
\$15,001-\$20,000	16 (14)	16 (15)	1 (6)
\$20,001-\$30,000	13 (11)	11 (10)	2 (11)
\$30,001-\$40,000	4 (3)	4 (4)	0 (0)
<i>Type of Insurance</i>			
Free	26 (23)	23 (21)	5 (29)
Cash	5 (4)	2 (2)	1 (6)
MediCal	72 (63)	70 (65)	10 (59)
Private	11 (10)	11 (10)	1 (6)
<i>Ever Had a Sexually Transmitted Disease</i>			
Yes	60 (52)	58 (54)	11 (61)
No	55 (48)	49 (46)	7 (39)
<i>Family History of Cervical Cancer</i>			
Yes	26 (23)	24 (22)	4 (22)
No	89 (77)	83 (78)	14 (78)
<i>Douching Frequency</i>			
Never	8 (7)	NA <sup>^</sup> --	NA --
<2 a month	65 (58)	65 (60)	NA --
Twice a month	24 (22)	24 (23)	NA --
≥2 times per week	18 (16)	18 (17)	18 (100)

\* Subtotals may be less than column total due to missing values; \*\* Chi-square P<0.03; ^ NA: not applicable

or nurse, three reported a friend, two reported a mother or grandmother and one woman reported her husband as the advisor. Five of the women who had ever douched reported they were told to douche before a Pap exam; three reported their mother, two reported their friend and one reported a nurse as the advisor. Frequent doublers compared with less frequent doublers were more likely to report that someone told them to douche before a Pap exam [17% (n=3) vs. 2% (n=1),  $P=0.01$ ].

Frequent doublers compared with less frequent doublers were more likely to report after sex [89% (n=16) vs. 58% (n=38),  $P=0.02$ ] or after discharge [89% (n=16) vs. 49% (n=32),  $P\leq 0.01$ ] as a reason for douching. Women who douche two times per month compared with less frequent doublers also were more likely to report after discharge [75% (n=18) vs. 49% (n=32),  $P=0.03$ ] as a reason for douching. In an open-ended question asking participants the main reason they douched, 82% (88) expressed "maintaining freshness and stopping odors" as the predominant reason (data not shown).

After controlling for age, both frequent doublers and women who douche two times per month were more likely to report after discharge as a reason for douching compared with less frequent doublers (frequent doublers: OR 8.11, 95% CI: 1.64, 40.1; two times per month: OR 2.88, 95% CI: 0.98, 8.44). Frequent doublers compared with less frequent doublers were more likely to report after sex as a reason for douching (OR 5.35, 95% CI: 1.09, 26.2) and were more likely to self-report a history of gonorrhea (OR 4.87, 95% CI: 1.07, 22.2). Women who douche two times per month compared with less frequent doublers also were more likely to self-report a history of gonorrhea, although results were not as statistically significant (OR 3.10, 95% CI: 0.79, 12.1).

Table 3 presents the preferences of douches among less frequent doublers (n=89) and frequent doublers (n=18). Frequent doublers compared with less frequent doublers preferred a homemade solution of baking soda and water [57% (n=4) vs. 23% (n=5),  $P=0.06$ ] and preferred over-the-counter, scented solutions [63% (n=10) vs. 31% (n=25),  $P=0.03$ ].

## DISCUSSION

In a recent review of the literature on douching practices among young women, Simpson et al. documented that there have been an increasing number of studies characterizing women who have ever douched.<sup>16</sup> Findings from this review indicate that African-American women overwhelmingly report douching at least once in their lifetime.<sup>2</sup> Other studies have also documented a high prevalence of douching among African-American women.<sup>14,21,22</sup> Feeling fresh and removing odor predominate as the main reason for

douching among the African-American women who have ever douched in our study as well as in the literature.<sup>6,14,16,17</sup> However, further segmentation of African-American women who have ever douched may provide a more focused profile for intervention purposes. Our study is the first to examine the characteristics associated with frequent douching ( $\geq 2$  times per week) among predominantly never-married, low-income African-American women. We found that within our target population, frequent doublers compared with less frequent doublers were more likely to report douching after sex, after discharge, report a regular sex partner and self-report a history of gonorrhea infection. We found that women who douche two times per month compared with less frequent doublers were also more likely to report douching after discharge and self-report a history of gonorrhea infection, thus strengthening the consistency of some of our findings.

Douching after a discharge may be an indication that some women are trying to self-treat an infection rather than seek a medical evaluation. According to one study, 12 % of women believed douching after sex prevented HIV or STD infections.<sup>13</sup> Clinicians should encourage patients to schedule examinations whenever they see an abnormal discharge and should advise women against douching and the use of medicated douches, particularly as self-treatment measures. Further research should be done to understand the use of douching as an STD/HIV prevention method and the association between sexual risk behaviors and douching practices.

Overall, mothers and grandmothers were the main source of introducing douching to participants in our study. A small percentage of women in our study, most being frequent doublers, reported that they were advised by family members to douche prior to Pap examinations. Our findings have several implications for the practice and policy of clinicians screening for sexually transmitted diseases. Providers should inquire about the frequency and most recent douching episode and have written educational materials readily available for patients. Patients who are scheduled for Pap or gynecologic examinations should be advised to avoid douching prior to examination.

That female family members are main sources of learned douching practices among our study population and in the literature<sup>17,18,21</sup> highlights the need to understand the cultural aspects of douching, as douching practices are known to vary by cultural norms. For example, the oral traditions of African-Americans, a way of passing down stories and information to the younger generations, can be traced back to their African culture, prior to enslavement in North and South America.<sup>23</sup> Group discussions involving mothers, grandmothers, daughters and other female relatives about the effects of douching should be test-

ed as an effective intervention approach. In addition, alternative options to douching need to be tested and discussed with women who frequently douche to find an acceptable alternative to replace a practice that has been culturally identified from early womanhood and

tied to past generations.

In addition to the cultural and familial promoters of douching, it is likely that the commercial sale and marketing of douches contribute to the lack of education and confusion about the risks of douching. If

**Table 2. Comparison of selected demographic and behavioral characteristics between women who douche two times per month or women who douche  $\geq 2$  times per week and women who douche  $< 2$  times per month**

Category <sup>^</sup>	Douche $< 2$ Times per Month (n=65)	Douche 2 Times per Month (n=24)	P Value*	Douche $\geq 2$ Times Times per Week (n=18)	P Value*
	n (%)	n (%)		n (%)	
<i>Age Group</i>					
18–24	13 (20)	2 (8)	0.58	3 (17)	0.24
25–34	27 (42)	10 (42)		6 (33)	
35–44	21 (32)	10 (42)		5 (28)	
45–53	4 (6)	2 (8)		4 (22)	
<i>Individual Income</i>					
$\leq \$10,000$	30 (46)	8 (33)	0.28	10 (56)	0.48
$> \$10,000$	35 (54)	16 (67)		8 (44)	
<i>Report Regular Sex Partner</i>					
Yes	47 (73)	15 (65)	0.46	17 (94)	0.06
No	17 (27)	8 (35)		1 (6)	
<i>Number of Sex Partners in Past Year</i>					
0–1	35 (61)	12 (60)	0.12	12 (71)	0.86
2	12 (21)	1 (5)		3 (18)	
3–4	7 (12)	3 (15)		1 (6)	
$\geq 5$	3 (5)	4 (20)		1 (6)	
<i>Condom Use</i>					
Very frequently or always	38 (59)	15 (63)	0.96	6 (33)	0.13
Somewhat frequently	6 (9)	2 (8)		2 (11)	
Infrequently or never	20 (31)	7 (29)		10 (56)	
<i>Self-reported history of chlamydia</i>					
Self-reported history of chlamydia	16 (25)	7 (29)	0.66	4 (22)	0.83
<i>Self-reported history of gonorrhea</i>					
Self-reported history of gonorrhea	5 (8)	5 (21)	0.08	5 (28)	<b>0.02</b>
<i>Self-reported history of trichomoniasis</i>					
Self-reported history of trichomoniasis	16 (25)	7 (29)	0.86	5 (28)	0.78
<i>Self-reported history of pelvic inflammatory disease</i>					
Self-reported history of pelvic inflammatory disease	3 (5)	1 (4)	0.93	1 (6)	0.87
<i>Most Recent Pap Exam</i>					
$< 2$ years ago	57 (88)	23 (96)	0.26	17 (94)	0.41
$> 2$ years ago	8 (12)	1 (4)		1 (6)	
<i>Abnormal result of most recent Pap exam</i>					
Abnormal result of most recent Pap exam	19 (30)	7 (29)	0.93	6 (33)	0.80
<i>Told to douche before Pap exam</i>					
Told to douche before Pap exam	1 (2)	1 (4)	0.47	3 (17)	<b>0.01</b>
Told not to douche before Pap exam	11 (17)	4 (17)	0.60	4 (22)	0.36
<i>Reasons for Douching</i>					
After period	60 (92)	23 (96)	0.56	16 (89)	0.64
After sex	38 (58)	16 (67)	0.48	16 (89)	<b>0.02</b>
After discharge	32 (49)	18 (75)	<b>0.03</b>	16 (89)	<b>&lt;0.01</b>
Before sex	20 (31)	12 (50)	0.09	9 (50)	0.13
After Pap	13 (20)	12 (50)	<b>0.01</b>	6 (33)	0.24
Before Pap	15 (23)	6 (25)	0.85	6 (33)	0.38

<sup>^</sup> Subtotals may be less than column total due to missing values. Percentages exclude missing values; \* Pearson Chi-squared test

the medical and public health community recommend women reduce the practice of douching but commercial advertisements promote the practice of douching, then the community is receiving mixed messages about douching. Subsequently, the African-American community may ignore the recommendations given from the medical establishments, especially given the suspicion the African-American community harbors toward the medical establishment.<sup>24,25</sup> While further research is necessary to describe the many factors promoting douching, perhaps the convening of trusted community leaders, national public health and medical panels and representatives of commercial douching products would help to outline an appropriate strategy for interventions to reduce the modifiable practice of vaginal douching.

There are limitations in the interpretation of our study. Recall bias regarding douching frequency, past Pap examinations and prior STD diagnoses may have affected some of our findings. The relatively small sample size may have precluded detection of additional statistical associations and limits our causal interpretation and generalizability of the study. Our findings are compelling but not definitive. Despite these limitations, our study is indicative of the need for attention to vaginal douching practices among never-married, low-income African-American women and raises more questions about the rationale for douching. For example, more research among our target population is needed to understand the role a regular sex partner may play on douching practices as well as the related effect on condom use and past STD infections. Not only may clinicians influence the douching practices of our

target group, but high-school health education classes may be an effective avenue to inform young women about the effects of and address any misperceptions about douching. Finally, future research should focus on identifying effective interventions that affect the cultural dynamics, beliefs and teachings about douching and safer and acceptable alternatives to douching.

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**Table 3. Comparison of douche preferences between women who douche  $\geq 2$  times per week with women who douche  $< 2$  times per week**

Douching Preference	Douche $< 2$ Times per Week (n=89)	Douche $\geq 2$ Times per Week (n=18)	P Value <sup>^</sup>
Makes Homemade Douches*	24	7	
Water only	4 (17)	0 (0)	
Vinegar only	24 (100)	7 (100)	
Water and vinegar only	18 (75)	6 (86)	
Baking soda and water	5 (21)	4 (57)	0.06
Other	4 (17)	1 (14)	
Buys Commercial Douches*	81	16	
Water and vinegar	75 (93)	15 (94)	
Baking soda and water	15 (19)	5 (31)	
Scented	25 (31)	10 (63)	0.03
Medicated	14 (17)	4 (25)	
Other	2 (2)	2 (13)	

\*Not mutually exclusive categories; \*\* Percentages of the category total; ^ Pearson Chi-squared test

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**THE HUMANE SOCIETY  
OF THE UNITED STATES.**