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## Original Investigation

# Pubic Hair Grooming Prevalence and Motivation Among Women in the United States

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**IMPORTANCE** Pubic hair grooming is an increasingly prevalent trend. Several studies have sought to characterize its prevalence, associated demographics, and motivations.

**OBJECTIVE** To characterize current pubic hair grooming practices in the United States.

**DESIGN, SETTING, AND PARTICIPANTS** In this cross-sectional study, a nationally representative survey was conducted in January 2013 of noninstitutionalized adults aged 18 to 65 years residing in the United States via the GfK Group (formerly Knowledge Networks) panel members. Data analysis was performed from November to December 2015.

**INTERVENTIONS** A questionnaire examining pubic hair grooming habits.

**MAIN OUTCOMES AND MEASURES** Demographic characteristics and motivations associated with pubic hair grooming.

**RESULTS** A total of 3372 women were surveyed. Fifty-six women did not answer the grooming question; consequently, 3316 women were included in the analysis. Of these women, 2778 (83.8%) reported pubic hair grooming and 538 (16.2%) reported never grooming. On multivariate regression, several factors associated with grooming were found. When compared with younger women (aged 18-24 years), women aged 45 through 55 years (odds ratio [OR], 0.05; 95% CI, 0.01-0.49;  $P = .01$ ) and those older than 55 years (OR, 0.04; 95% CI, 0.00-0.34;  $P = .003$ ) were significantly less likely to groom. Women with some college (OR, 3.36; 95% CI, 1.65-6.84;  $P = .001$ ) or a bachelor's degree (OR, 2.39; 95% CI, 1.17-4.88;  $P = .02$ ) were more likely to have groomed. Race was also significantly associated with grooming, with all groups reporting less grooming when compared with white women. No association was found between grooming and income, relationship status, or geographic location.

**CONCLUSIONS AND RELEVANCE** This study provides a nationally representative assessment of contemporary female pubic hair grooming habits. Demographic differences in grooming were found, which may reflect cultural variations in preference related to pubic hair. Health care professionals and those who provide grooming services can use this information to better counsel patients and understand grooming practices.

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**P**ubic hair grooming is an increasingly prevalent trend in the 21st century.<sup>1</sup> Several studies<sup>2-5</sup> during the past 5 years have found that most women report engaging in pubic grooming and hair removal, including total removal of all pubic hair. This practice is most common in younger women. Other factors that have been associated with pubic hair grooming include race, being in an unmarried relationship, sexual activity, and higher scores on sexual function scales,<sup>1,4</sup> which implies better sex life satisfaction for women who groom.<sup>2</sup>

Pubic hair grooming practices pose some potential risks of injury to women, most often related to shaving.<sup>6,7</sup> Obese women are particularly prone to injury during pubic hair grooming, which is important to any practitioners who address gynecologic health.<sup>6</sup> There are also known benefits to pubic hair grooming, such as decreased rates of pubic hair lice.<sup>8</sup>

Knowledge of grooming behaviors is important for health care professionals because these behaviors reflect cultural norms and a source of patient morbidity. Much of what is believed to be the driving factor for grooming is a cultural trend, epitomized by representation of genitalia in popular media.<sup>1</sup> The mainstream media's portrayal of women discussing and engaging in pubic hair removal is also a major factor for grooming-related influences.<sup>9</sup> Furthermore, there is an increasing trend of genital cosmetic surgery, and a previous study<sup>10</sup> highlights that the motivating factor is aesthetics rather than functionality. Some surgeons believe that the current grooming trends are responsible for this increase because women are able to visualize their labia more easily now than in the past and are thus more motivated to change their appearance.<sup>11</sup>

A major limitation of the existing literature on pubic hair grooming in women is generalizability.<sup>2-5</sup> Most studies<sup>2-4</sup> to date have used convenience samples that are racially and demographically homogenous. Some studies<sup>4,5,12</sup> have enrolled more diverse populations but have been limited to specific geographic regions and often limited age ranges. To date, there are no nationally representative samples of US women and their current pubic hair grooming practices. Such a sample is relevant for health care professionals because women often seek advice related to grooming and counseling on risks for injury; hence, it is important for health care professionals to be familiar with the common grooming practices among women. The objective of this study is to report on pubic hair grooming practices and characteristics associated with grooming in a nationally representative sample.

## Methods

### Study Population

We conducted a nationally representative survey of noninstitutionalized adults aged 18 to 65 years residing in the United States. A questionnaire examining the demographic characteristics of people who reported a lifetime history of any pubic hair grooming vs never having groomed was developed. For the purposes of this study, we focused exclusively on the women responders.

The survey was conducted with the GfK Group (formerly Knowledge Networks). Details regarding GfK study methods

### Key Points

**Question** What is the rate of female pubic hair grooming in the United States?

**Findings** In a nationally representative sample, US women are more likely to groom their pubic hair if they are younger, white, and more educated. They also groom if their partner prefers them to do so without being based on actual sexual practices.

**Meaning** Women in the United States increasingly are grooming their pubic hair for cosmetic purposes, but this trend appears to occur within specific demographic groups of women.

have been reported previously.<sup>13</sup> Panel members for surveys are recruited using random probability-based sampling to ensure that a representative sample is obtained. Panel members are randomly recruited using address-based sampling methods. GfK samples addresses from the US Postal Service's Delivery Sequence File. Address-based sampling estimates that 97% of households can be reached and contacted through household mail.<sup>13</sup> Once the panel members are recruited, they receive notification via email to participate in a study sample. Panel members may also check their personal online member page to participate in survey taking. The topic of the survey is given to participants. Participants do not see any questions from a particular survey until they accept the survey. GfK provides a laptop or netbook computer and free internet service to all panel members without access to the internet. For the current study, panel members received 1000 points for completing the survey, which is the cash equivalent of \$1.

In addition to standard measures taken by GfK to enhance survey cooperation, email reminders were sent to nonresponders on day 3 of the field period. A pretest survey was conducted in December 2012 to ensure responders understood the questions. The final survey was conducted in January 2013. All participants provided written informed consent before the beginning of the survey. Data analysis was performed from November to December 2015.

GfK uses statistical weighting adjustments to correct for known deviations. Additional survey errors, such as noncoverage and nonresponse, are also corrected for using panel demographic poststratification weights. The Committee on Human Research at the University of California, San Francisco, approved the study.

### Predictor Variables

The following demographic data were collected: age, race, relationship status, educational level, and geographic region. We also asked about personal and ideal hairiness (using diagrams), the role of a partner's preference for grooming, and specifics about sexual activity.

### Outcome Variables

For the current study, we explored differences in characteristics of groomers, defined as women who reported any grooming, vs nongroomers.

**Table 1. Demographic Characteristics of the Women in the Study**

Characteristic	No. (%) of Women (N = 3372)
<b>Age, y</b>	
18-24	274 (8.1)
25-34	581 (17.2)
35-44	601 (17.8)
45-54	796 (23.6)
55-65	1120 (33.2)
<b>Race</b>	
White	2299 (68.2)
Black	421 (12.5)
Other, non-Hispanic	115 (3.4)
Hispanic	403 (12.0)
Mixed	134 (4.0)
<b>Marital status</b>	
Married	1745 (51.8)
Widowed	116 (3.4)
Divorced	433 (12.8)
Separated	72 (2.1)
Never married	721 (21.4)
Living with partner	285 (8.5)
<b>Educational level</b>	
Less than high school	272 (8.1)
High school	917 (27.2)
Some college	1027 (30.5)
Bachelor's degree or higher	1156 (34.3)
<b>Location</b>	
Northeast	632 (18.7)
Midwest	825 (24.5)
South	1192 (35.4)
West	723 (21.4)
<b>Income, \$</b>	
<50 000	1524 (45.2)
50 000-74 999	528 (15.7)
75 000-99 999	354 (10.5)
>100 000	966 (28.7)
<b>Method of grooming (total = 3316)<sup>a</sup></b>	
Nonelectric razor	1694 (61.0)
Electric razor	334 (12.0)
Wax	128 (4.6)
Scissors	486 (17.5)
Electrolysis	3 (0.1)
Laser hair reduction	19 (0.7)
Depilatory cream	32 (1.2)
Tweezers	4 (0.1)
Other	45 (1.6)

<sup>a</sup> Fifty-six women did not answer the grooming question.

**Statistical Analysis**

Data analysis was conducted using the survey function within STATA statistical software, version 12.0 (StataCorp), to account for complex sampling design. *P* < .05 was considered statistically significant, and all statistical tests were 2 sided. All missing or incomplete data were excluded from the analyses. Demographic characteristics and sexual characteristics were

**Table 2. Grooming Motivation and Frequency**

Question	No. (%) of Women <sup>a</sup>
<b>Why do you groom?<sup>b</sup></b>	
Part of routine	1292 (45.5)
Hygienic or cleaner	1640 (59.0)
Partner prefers	586 (21.1)
Makes my vagina look nicer	875 (31.5)
Oral sex is easier	543 (19.6)
Anal sex is easier	37 (1.3)
History of pubic lice or STI	13 (0.5)
Other	384 (13.8)
<b>What do you groom for?<sup>b</sup></b>	
Sex	1544 (55.6)
Health care professional visit	1111 (40.0)
Vacation	1270 (45.7)
Other	717 (25.8)
<b>How often do you groom?</b>	
Daily	133 (4.8)
Weekly	659 (23.9)
Monthly	674 (24.4)
Every 3-6 months	618 (22.4)
Every year	90 (3.3)
I do not regularly groom	588 (21.3)
<b>Have you ever removed all hair?</b>	
Not at all	1044 (37.9)
1 time	451 (16.4)
2-5 times	502 (18.2)
6-10 times	182 (6.6)
>11 times	575 (20.8)
<b>Who performs your grooming?<sup>b</sup></b>	
Self	2577 (92.8)
Partner	223 (8.0)
Friend	9 (0.3)
Professional	187 (6.7)
Other	37 (1.0)
<b>What areas do you groom?<sup>b</sup></b>	
Hair above vagina	2054 (73.9)
Hair around vagina	2087 (75.1)
Hair below belly button	844 (30.4)
Inner thighs	1505 (54.2)
Hair around anus	621 (22.4)
Buttocks	196 (7.1)
Hair between vagina and anus	818 (29.5)

Abbreviation: STI, sexually transmitted infection.

<sup>a</sup> The total number of respondents differs for some of the questions because of missing data; however, for most responses, the total number of respondents is 2778.

<sup>b</sup> Can provide more than 1 response.

compared between groomers and nongroomers using 2-sided *t* tests. All variables with *P* < .20 in univariate models and variables thought to be suggestive of grooming were added to the multivariate logistic model. Multivariate logistic regression was used to see which factors have the greatest odds of the outcome of grooming. Of women who reported pubic hair

Table 3. Bivariate Analysis for Pubic Hair Grooming in the US Female Population<sup>a</sup>

Characteristic	Groomers (n = 2778)	Nongroomers (n = 538)	P Value
Age group, y			
18-24	242 (8.7)	29 (5.4)	<.001
25-34	538 (19.4)	36 (6.7)	
35-44	549 (19.8)	40 (7.4)	
45-54	675 (24.3)	111 (20.6)	
55-64	774 (27.9)	322 (59.9)	
Educational level			
Less than high school	198 (7.1)	67 (12.5)	<.001
High school graduate	716 (25.8)	184 (34.2)	
Some college	865 (31.1)	144 (26.8)	
Bachelor's degree or higher	999 (36.0)	143 (26.6)	
Income, \$			
<50 000	1209 (43.5)	284 (52.8)	<.001
50 000-74 999	428 (15.4)	90 (16.7)	
75 000-99 999	297 (10.7)	52 (9.7)	
>100 000	844 (30.4)	112 (20.8)	
Race			
White	1921 (69.2)	349 (64.9)	.02
Black	328 (11.8)	86 (16.0)	
Hispanic	333 (12.0)	57 (10.6)	
Other	439 (7.1)	56 (8.6)	
Relationship status			
Married	1436 (51.7)	279 (51.9)	<.001
Widowed	79 (2.8)	36 (6.7)	
Divorced	342 (12.3)	80 (14.9)	
Separated	60 (2.2)	10 (1.9)	
Never married	608 (21.9)	106 (19.7)	
Living with partner	253 (9.1)	27 (5.0)	
Region of country			
Northeast	512 (18.4)	109 (20.3)	.77
Midwest	689 (24.8)	129 (24.0)	
South	983 (35.4)	184 (34.2)	
West	594 (21.4)	116 (21.6)	
Last-year sexual partners	1.71 (0.76-2.65)	0.87 (0.80-0.94)	.52
Lifetime sexual partners	9.01 (7.84-10.2)	4.44 (3.53-5.35)	.005
Are you sexually active with...			
Men	2031 (74.2)	280 (53.6)	<.001
Women	70 (2.6)	7 (1.3)	
Both	36 (1.3)	4 (0.8)	
Not sexually active	601 (25.5)	231 (44.3)	
Frequency of sexual activity			
Daily	69 (3.3)	8 (3.0)	.001
1-3 Times per week	1098 (53.0)	110 (40.7)	
Monthly	514 (24.8)	80 (29.6)	
Every 3 months or less	389 (18.8)	72 (26.7)	
Which sexual activities have you engaged in during past year?			
Receptive vaginal sex	1903 (87.4)	232 (75.6)	<.001
Receptive anal sex	250 (11.5)	7 (2.3)	<.001
Performed oral genital sex	1334 (61.3)	88 (28.7)	<.001
Received oral genital sex	1187 (54.5)	72 (23.5)	<.001
Performed oral anal sex	82 (3.8)	1 (0.3)	.002
Received oral anal sex	156 (7.2)	5 (1.6)	<.001

(continued)

**Table 3. Bivariate Analysis for Pubic Hair Grooming in the US Female Population<sup>a</sup> (continued)**

Characteristic	Groomers (n = 2778)	Nongroomers (n = 538)	P Value
How hairy are you? <sup>b</sup>	3.44 (3.39-3.50)	2.95 (2.83-3.08)	<.001
How hairy is your partner? <sup>b</sup>	3.92 (3.85-3.98)	3.66 (3.51-3.81)	.002
How much do you agree with the following statements? <sup>c</sup>			
I groom because partner expects it	3.05 (2.99-3.11)	2.77 (2.64-2.90)	<.001
Sex is better when I groom	3.97 (3.91-4.03)	3.05 (2.91-3.18)	<.001
Vagina looks better when I groom	4.69 (4.62-4.74)	3.14 (3.01-3.27)	<.001
I look sexier when I groom	4.75 (4.69-4.80)	3.14 (3.01-3.28)	<.001
I feel younger when I groom	4.00 (3.94-4.06)	3.03 (2.90-3.16)	<.001
I feel embarrassed if people see me when I have not groomed	4.02 (3.95-4.08)	3.19 (3.06-3.33)	<.001
Most women groom their pubic hair	4.63 (4.59-4.68)	3.56 (3.44-3.68)	<.001
Do you have a regular partner?	2025 (73.7)	288 (54.2)	<.001
Does your partner groom?	1200 (46.8)	34 (7.1)	<.001
Does your partner prefer you groomed?			
Yes	900 (44.7)	9 (3.2)	<.001
No	382 (19.0)	209 (74.4)	
Unsure	358 (17.8)	57 (20.3)	
Unsure but I think so	375 (18.6)	6 (2.1)	

<sup>a</sup> Data are presented as number (percentage) of women or odds ratio (95% CI).

<sup>b</sup> Likert scale range, with 1 indicating no hair; 2, some hair; 3, moderate hair; 4, hairy; and 5, very hairy.

<sup>c</sup> Likert scale range, with 1 indicating do not agree; 2, somewhat agree; 3, neutral; 4, agree; and 5, strongly agree.

grooming, the prevalence of instrument used and areas most often groomed were obtained via summary statistics.

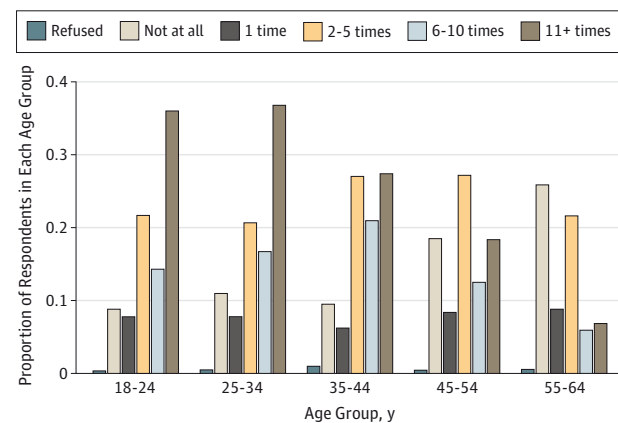
## Results

A total of 3372 women were surveyed. Fifty-six women did not answer the grooming question; consequently, 3316 women were included in the analysis. Demographic information is presented in **Table 1**. Overall, there was broad representation across the United States in terms of age and racial diversity. A total of 2778 women (83.8%) reported a lifetime history of pubic hair grooming, and 538 (16.2%) reported no grooming history (**Table 2**). There was a bimodal distribution to the frequency of grooming, with the mean frequency being monthly grooming. A total of 133 women (4.8%) reported performing daily grooming. When asked where they groom, most women reported grooming the hair above and around the vagina (2054 [73.9%] and 2087 [75.1%], respectively), and relatively few reported grooming the buttocks and around the anus (196 [7.1%] and 621 [22.4%], respectively). A total of 1710 women (62.1%) reported removing all their pubic hair at some point. A total of 2577 women (92.8%) reported that they performed their own grooming.

The most common motivations for grooming were for hygienic purposes (1640 [59.0%]) and/or as part of their routine (1292 [45.5%]) (**Table 2**). A total of 875 (31.5%) reported grooming because they believe it makes their genitals more attractive, and 586 (21.1%) reported grooming because of partner preference. When asked about situations for which they groom, women reported sex as the most common reason (1544 [55.6%]) but also vacation (1270 [45.7%]) and health care professional visit (1111 [40.0%]).

In bivariate  $\chi^2$  analysis (**Table 3**), grooming was significantly associated with age; younger women were more likely

**Figure. Pubic Hair Grooming Frequency per Year by Age**



to report grooming than older groups. Women who groomed were more likely to have higher educational levels and incomes. White women were more likely to report grooming than women of other self-identified racial/ethnic groups. Women who were widowed, separated, or single were less likely to groom, but there was no difference in the percentage of married women who reported grooming. There was also no difference in grooming habits by geographic region or number of recent sexual partners. The **Figure** presents the distribution of grooming frequency during the past year in relation to age, educational level, and race.

Women who reported grooming had twice the mean number of lifetime partners as those who did not groom (9.0 vs 4.4,  $P = .005$ ) and were significantly more likely to have more regular sexual activity ( $P = .001$ ) and engage in active and receptive oral sex ( $P < .001$ ).

On multivariate regression, we found several factors associated with grooming (**Table 4**). When compared with

**Table 4. Multivariate Logistic Regression for Pubic Hair Grooming in the US Female Population**

Characteristic	OR (95% CI)	P Value
<b>Age group, y</b>		
18-24	1.0 [Reference]	NA
25-34	0.17 (0.02-1.55)	.12
35-44	0.14 (0.02-1.29)	.08
45-55	0.05 (0.01-0.49)	.01
55-64	0.04 (0.00-0.34)	.003
<b>Educational level</b>		
Less than high school	1.0 [Reference]	NA
High school graduate	1.98 (1.00-3.90)	.05
Some college	3.36 (1.65-6.84)	.001
Bachelor's degree or higher	2.39 (1.17-4.88)	.02
<b>Income, \$</b>		
<50 000	1.0 [Reference]	NA
50 000-74 999	1.06 (0.64-1.74)	.83
75 000-99 999	0.75 (0.41-1.35)	.34
>100 000	1.22 (0.74-2.01)	.44
<b>Race</b>		
White	1.0 [Reference]	NA
Black	0.49 (0.26-0.91)	.02
Other, non-Hispanic	0.43 (0.18-1.02)	.06
Hispanic	0.45 (0.25-0.81)	.008
Mixed	0.38 (0.16-0.91)	.03
<b>Marital status</b>		
Married	1.0 [Reference]	NA
Widowed	3.90 (0.67-22.60)	.13
Divorced	1.39 (0.60-3.25)	.45
Separated	4.26 (0.46-39.30)	.20
Never married	0.82 (0.36-1.85)	.63
Living with partner	1.33 (0.66-2.69)	.42
<b>Location</b>		
Northeast	1.0 [Reference]	NA
Midwest	1.02 (0.61-1.71)	.94
South	1.08 (0.66-1.78)	.77
West	1.09 (0.63-1.89)	.75
Lifetime sexual partners	1.05 (1.02-1.09)	.003
<b>Sexual partner</b>		
Men	1.0 [Reference]	NA
Women	0.66 (0.21-2.06)	.47
Both	0.29 (0.03-2.79)	.28
<b>Frequency of sexual activity</b>		
Daily	1.0 [Reference]	NA
1-3 Times per week	2.28 (0.73-7.12)	.16
Monthly	2.13 (0.66-6.82)	.20
Less than monthly	2.52 (0.77-8.31)	.13
Receptive vaginal sex	1.22 (0.68-2.19)	.50
<b>Sexual behavior</b>		
Receptive anal sex	1.21 (0.42-3.45)	.73
Performed oral genital sex	1.06 (0.68-1.65)	.81
Received oral genital sex	1.33 (0.85-2.11)	.22
Performed oral anal sex	2.13 (0.20-22.70)	.53
Received oral anal sex	2.31 (0.53-10.00)	.27
How hairy are you? <sup>a</sup>	1.03 (0.91-1.17)	.60

(continued)

**Table 4. Multivariate Logistic Regression for Pubic Hair Grooming in the US Female Population (continued)**

Characteristic	OR (95% CI)	P Value
<b>My partner grooms</b>		
Yes	1.0 [Reference]	NA
No	0.43 (0.24-0.75)	<.003
<b>My partner prefers me to groom</b>		
Yes	1.0 [Reference]	NA
No	0.04 (0.02-0.10)	<.001
Unsure	0.13 (0.06-0.30)	<.001
Unsure but I think so	1.15 (0.32-4.16)	.83
<b>I prefer my partner groomed</b>		
Yes	1.0 [Reference]	NA
No	0.76 (0.37-1.59)	.47
Doesn't matter	1.19 (0.58-2.45)	.64
Not sexually active	0.12 (0.01-2.02)	.14

Abbreviations: NA, not applicable; OR, odds ratio.

<sup>a</sup> Predictor is a continuous variable (Likert scale range, with 1 indicating no hair; 2, some hair; 3, moderate hair; 4, hairy; and 5, very hairy).

younger women (aged 18-24 years), women aged 45 through 55 years (odds ratio [OR], 0.05; 95% CI, 0.01-0.49;  $P = .01$ ) and those older than 55 years (OR, 0.04; 95% CI, 0.00-0.34;  $P = .003$ ) were significantly less likely to groom. Women with some college (OR, 3.36; 95% CI, 1.65-6.84;  $P = .001$ ) or a bachelor's degree (OR, 2.39; 95% CI, 1.17-4.88;  $P = .02$ ) were more likely to have groomed. Race was also significantly associated with grooming, with all groups reporting less grooming when compared with white women. No association was found between grooming and income, relationship status, or geographic location.

On multivariate regression, the role of partner preference still held when controlling for relevant demographic factors. Women who reported that their partners did not groom were significantly less likely to groom (OR, 0.43; 95% CI, 0.24-0.75;  $P > .003$ ). Women were also less likely to groom if their partner did not prefer it (OR, 0.04; 95% CI, 0.02-0.10;  $P < .001$ ). Number of lifetime sexual partners was associated with grooming (OR, 1.05; 95% CI, 1.02-1.09;  $P = .003$ ). Of note, frequency of sex, types of sexual activity, and sex of sexual partner were not associated with grooming after multivariable adjustment.

## Discussion

The grooming practices of a representative sample of adult women in the United States were evaluated. Overall, the prevalence of pubic hair grooming in women is substantial. We found many factors associated with pubic hair grooming, including age, race, educational level, and the number of lifetime sexual partners.

Pubic hair grooming has been the subject of a number of recent research efforts. Herbenick et al<sup>2</sup> published the initial large study on grooming. Although the study population was large, most participants were white (86%) and young (mean age, 32 years). Their group also reported that younger age was

a significant predictor of grooming, as was relationship status and sexual activity; namely, unmarried women and those who engage in oral sex were more likely to groom. A follow-up study<sup>5</sup> comparing men and women's grooming practices was again a convenience sample recruited from college campuses who were mainly white and younger. Additional studies<sup>6,12</sup> have sought to broaden the respondent base, mainly through convenience samples in Texas, where there was a larger representation of Latina women. DeMaria and Berenson<sup>12</sup> also found that white women were significantly more likely to engage in grooming than black and Latina women. After multivariate regression, these authors also reported a positive association of grooming with income and a negative association with age. Within this study, the authors also found that there were increased rates of grooming-related injuries among obese women.

Our findings corroborate previous studies<sup>2-5</sup> in terms of the inverse association between age and grooming habits. Much has been written about the new trends in popular culture related to hairlessness and genitals. Ramsey et al<sup>1</sup> published a review that addresses the sociocultural, anthropologic, psychological, and sexual aspects of pubic hair removal. These authors suggest that the modern trend of pubic hair removal likely originated in South America (hence the term *Brazilian* as slang for complete pubic hair removal) but that the increased prevalence of pornography that depicts bare genitalia, popular magazines, and television are primary drivers of the trend in the United States.

We found that women groom for social events but also groom when visiting a health care professional. This finding suggests that women are self-conscious about their appearance even in nonsocial settings. Thus, any exposure to her genital area may drive a woman to groom, even when the health care professional is an unbiased professional providing medical care.

Unlike prior studies,<sup>2,5</sup> we did not find an association between income and grooming; however, we found a positive association between grooming and educational level. The multivariable analysis and control for many confounding factors likely underlie this absence of effect. The role of education may be explained by the same cultural norms that contribute to younger women engaging in pubic hair grooming. Given the wide availability of explicit media depicting pubic hair grooming in women, it seems less likely that education is related to more exposure to popular culture ideals. Similar to other studies,<sup>4,12</sup> we found a difference in racial distribution of groomers, with white women being far more likely to groom than any other racial/ethnic group. This finding has been documented in a prior study<sup>12</sup> and seen as most likely to be related to cultural norms and ideals of beauty among different racial groups.

Our study is unique in assessing the role of the partner in grooming. Indeed, we found that women were far more likely

to groom if their partner also groomed and if their partner preferred that they groom. This finding is important because it highlights the role of sexual relationships as being a strong predictor of grooming. In contrast to the study by Herbenick et al,<sup>2</sup> which looked at similar outcomes and measures, we did not detect an association between types of relationship and types of sexual activity and grooming after multivariable analysis. A clear example of this behavior is demonstrated by 22.4% of women who groomed around the anus while only 10.0% engaged in any anal-related sexual activity in the prior year. This difference between our study and prior studies is the role of multivariate regression to control for confounders and the representative nature of our sample. Thus, although the prevailing wisdom has been that grooming is related to specific types of sexual activities or relationships in women, our analysis disputes these conclusions.

To our knowledge, our study is the first representative sample of women from across the United States. Its strengths include a large, nationally representative sample from a well-validated source. Participants completed our survey via the internet, which facilitates privacy and ease of access. Internet access was provided to all those without access. However, our study is not without limitations. All individuals contacted must have had a home address in the United States and be noninstitutionalized. Thus, these results may be difficult to generalize to the entire US population. Given the sensitive nature of our survey, some participants may not have felt comfortable answering questions about sexual behavior and pubic hair grooming.

## Conclusions

Female pubic hair grooming is a common practice seen by all health care professionals and providers of aesthetic treatments for women. Familiarity with the motivations and characteristics of women who groom can help inform health care professionals in terms of identifying women for counseling regarding grooming risks. Furthermore, our study demonstrates that, contrary to prior studies,<sup>2,3,5</sup> grooming is less associated with specific sexual activity and relationship type and more associated with age, race, and educational level. We also found that women were more likely to groom based on their partner's preference and some groom before visiting a health care professional. Thus, our study demonstrates a role for cultural sensitivity as it relates to pubic hair grooming because women have diverse motivations for grooming that are not universal. Future directions for research include understanding the cultural differences as they relate to pubic hair grooming and the role of the health care professional in influencing women's grooming habits.

### ARTICLE INFORMATION

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*Acquisition, analysis, or interpretation of data:*

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**Correction:** This article was corrected on August 10, 2016, to fix Table 2 and text in the Results section.

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