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ORIGINAL PAPER

Women's Sexual Satisfaction, Communication, and Reasons for (No Longer) Faking Orgasm: Findings from a U.S. Probability Sample

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Abstract
We aimed to assess, among a U.S. probability sample of adult women: (1) the prevalence of, and reasons given for, faking and no longer faking orgasm, (2) women's histories of sexual non-communication and reasons for non-communication, (3) associations between sexual non-communication and sexual satisfaction and faking orgasm, (4) associations between specific sexual communication and recent sexual satisfaction, and (5) associations between specific sexual communication and faking orgasm. Respondents were 1008 adult women ages 18–94 from the GfK KnowledgePanel (a nationally representative probability sample of non-institutionalized and English-speaking adults), who completed a confidential Internet-based survey. Although 58.8% of female respondents reported having ever faked/pretended orgasm, 67.3% of those who had ever faked orgasm no longer did. Women who continued to fake orgasms were more likely to indicate embarrassment talking about sex with their partner in explicit ways and were less likely to agree that they and their partner are able to talk specifically about what makes sex more pleasurable for them. More than half (55.4%) of women reported they had wanted to communicate with a partner regarding sex but decided not to; the most common reasons were not wanting to hurt a partner's feelings (42.4%), not feeling comfortable going into detail (40.2%), and embarrassment (37.7%). Greater self-reported sexual satisfaction was associated with more comfortable sexual communication. Study findings and implications for professionals are discussed in the context of adult sexual development and learning. This includes growing more comfortable talking with a partner about sexual preferences and sexual pleasure.

Keywords Female pleasure · Sexual communication · Sexual satisfaction · Probability sample · Faking orgasm

Introduction

Sexual satisfaction encompasses physical, emotional, psychological and relational elements (Pronier & Monk-Turner, 2014; Tiefer, 2002). Further, the pursuit of a satisfying, safe, and pleasurable sexual life has been proposed as a sexual right (World Health Organization, 2010). However, in many places globally (including the U.S., where the present study is based), sex remains a taboo subject (Baxter & Wilmot, 1985) particularly for women. Women's sexual expression and satisfaction may be suppressed by social taboos related to female masturbation (Fahs & Frank, 2014), genital shame (Braun & Wilkinson, 2001; Frischherz, 2015), gender-based sexual scripts (Gagnon, 1990), and access to personal or sexual power or agency (Kiefer & Sanchez, 2007; Solomon, Knobloch, & Fitzpatrick, 2004). Internalization of gender stereotypes may serve as potential barriers to satisfying sexual health and communication, and thus negatively impact women's sexual satisfaction (Fetterolf & Sanchez, 2015; Maas, Shearer, Gillen, & Lefkowitz, 2015). Young women often feel unable to consistently assert their own sexual rights, such as to tell a partner that they wish to make love differently or that a partner is being too rough (Rickert, Sanghvi, & Wiemann, 2002).

However, most women report moderate to high levels of sexual satisfaction. A large body of research in Australia, Finland, the U.S. and the UK has examined predictors of greater sexual satisfaction, pleasure, and/or function. Such predictors

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include mutual love, more frequent intercourse, sexual variety, more frequent orgasm, emotional satisfaction, and having grown up in a less reserved and non-religious childhood home (e.g., Haavio-Mannila & Kontula, 1997; Herbenick et al., 2010a; Mitchell et al., 2013; Richters, Grulich, deVisser, Smith, & Rissel, 2003).

Sexual double standards continue to limit female sexual expression, inhibiting some women's sexual communication and in particular their comfort level in receiving or asking for sexual pleasure (Armstrong, Hamilton, Armstrong, & Seeley, 2014; Fahs, 2011; Muehlenhard & Shippee, 2010). However, there have also been positive changes for American women in regard to sexual expression. Compared to Kinsey's era when only about half of women reported having masturbated (Kinsey, Pomeroy, Martin, & Gebhard, 1953), more than 70% of contemporary American women report engaging in masturbation (e.g., Herbenick et al., 2010b). About two-thirds of women report experiencing orgasm in any given sexual event (Herbenick et al., 2010a). This suggests that most women feel entitled to explore their own bodies and seek sexual pleasure during solo and partnered sexual experiences. Although women often experience barriers to their sexual expression, it is also clear that many women navigate their relational and social worlds in ways that help them to learn about sexuality and enhance their sexual experiences.

While not all women feel that orgasm is important to their sexual satisfaction, many do (see Laan & Rellini, 2011). The likelihood of female orgasm during partnered sex is increased by sexual variety (Herbenick et al., 2010a) and novelty (Watson, Seguin, Milhausen, & Murray, 2016) and is more likely to occur with a relationship partner than a new or hookup partner (Armstrong, England, & Fogarty, 2012). Within a relationship, partners are more likely to experience feelings of trust, sexual exclusivity and security related to the future of their relationship; ongoing relationship partners also have more frequent opportunities, via sexual events and communication, to learn about each other's sexual response and preferences. Indeed, women's sexual communication has been positively associated with their sexual satisfaction (Thomas, Hess, & Thurston, 2015). However, sexual communication has been measured in both broad and specific ways. In our study, we were interested in specific forms of sexual communication. We chose to extend the work of Kelly, Strassberg, and Turner (2004) who, in a campus and community study of man–woman couples, found that not only were difficulties in communication associated with female anorgasmia, but that the association was particularly strong for couples who were uncomfortable discussing sexual activities that involved direct clitoral contact. We also hoped to extend the literature by assessing women's reasons for inhibited sexual communication, such as embarrassment or not wanting to hurt a partner's feelings, the latter having previously been identified as a reason for pretending orgasm (e.g., Muehlenhard & Shippee, 2010).

Gendered norms and sexual scripts that suggest women should pay less attention to their own sexual needs (and instead prioritize those of their partner) may contribute to the fact that most women, at least in convenience samples, report having faked or pretended orgasm during their lifetime (e.g., Fahs, 2011; Muehlenhard & Shippee, 2010). Women's reasons for faking orgasm are multifaceted and may include a desire to please their partner, to protect their partners' feelings, and to avoid injuring their partner's sense of sexual expertise, as well as to end a sexual encounter due to boredom or fatigue (Fahs, 2011, 2014; Muehlenhard & Shippee, 2010; Wiederman, 1997). However, sexual communication in relation to faking orgasm is less often studied. It is also not well understood how faking orgasm fits into women's developmental trajectories of sexual exploration, including what influences women to stop faking orgasm. The present study expands the literature by examining, in a U.S. probability survey, women's lifetime prevalence of faking orgasm, the reasons women give for no longer faking orgasm, and the associations between faking orgasm and sexual communication.

The aims of the present research were to assess, among a U.S. probability sample of adult women: (1) the prevalence of, and reasons given for, faking and no longer faking orgasm, (2) women's histories of sexual non-communication and reasons for non-communication, (3) sexual non-communication and associations with sexual satisfaction and faking orgasm, (4) associations between specific sexual communication and recent sexual satisfaction, and (5) associations between specific sexual communication and faking orgasm.

Method

Participants

Data for the present study were from a larger U.S. probability survey of American women (ages 18 +)—the OMGYes Sexual Pleasure Report, described in detail elsewhere (Herbenick, Fu, Arter, Dodge, & Sanders, 2018)—focused on sexual pleasure, genital stimulation techniques, and orgasm. All study protocols and instruments were reviewed and approved by the Institutional Review Board at the authors' university. The survey was fielded by the GfK corporation (Menlo Park, CA) during a 2-week period in June 2015. We utilized GfK's KnowledgePanel®, a probability-based web panel designed to be representative of the non-institutionalized U.S. population and created through address-based sampling (ABS) by accessing the U.S. Postal Service's Delivery Sequence File. For households without Internet access, hardware and/or Internet access were provided to minimize bias. GfK offers its panel members points for survey participation; these points can be redeemed for merchandise or cash. No additional incentives were offered. The GfK KnowledgePanel® is frequently utilized

by scientists to collect U.S. probability data on numerous topics, including sexuality topics (e.g., Chang & Krosnick, 2009; Eisenberg, Freed, Davis, Singer, & Prosser, 2011; Herbenick et al., 2010a; Herek, 2009; Rothman, Edwards, Heeran, & Hingson, 2008; Yeager et al., 2011).

The survey was cross-sectional, Internet-based, confidential (the researchers never had access to respondent identifiers), and took about 10 min to complete. Survey invitations were distributed via email by GfK to 2416 female KnowledgePanel® members' ages 18 + years, with follow up reminder emails sent twice during the fielding period. As is common with GfK, the survey invitations simply notified panel members that a new survey was available to take, but did not describe the study topic. Of these, 1200 (49.7%) individuals clicked on the link to review the study topic and study information sheet and 1055 (88% of those who clicked the link to read about the study topic; 43.7% of those initially invited) then agreed to complete the survey. GfK prepared post-stratification statistical weights to correct for possible non-response, based on demographic variables (gender by age, race/ethnicity, education, census region, household income, and Internet access).

Measures

Demographic variables such as age, gender, race/ethnicity, education, household income, geographic region, and marital status are collected by GfK as part of their panel recruitment and retention process and were provided to the research team.

Sexual Behavior and Development

Three sexual behavior items were adapted from the 2009 National Survey of Sexual Health Behavior (NSSHB; Herbenick et al., 2010b). Respondents were asked "How recently have you had vaginal intercourse/received oral sex/had a partner touch your vagina or vulva?" (in the past month, in the past year, more than a year ago, never done this).

Respondents were also asked, "How old were you when you first felt comfortable and confident telling a partner how you wanted to be touched or how you wanted to have sex?" and "How old were you when you first felt like your sexual pleasure was valued by, or important to, a sexual partner?" Respondents typed in a numerical answer and each question included an option to indicate they had never felt that way. Responses from 1 through 6 were excluded from analyses due to a likelihood of being typographical errors (14 individuals were excluded from the item about comfort/confidence and 12 were excluded from the item about feeling their pleasure was valued; these responses were recoded as missing). This led to responses reflecting ages 12 + remaining.

Faking Orgasm, No Longer Faking Orgasm, and Associated Reasons

Items related to faking orgasm and sexual communication were developed based on the existing scientific literature, the authors' combined decades of experience interviewing and teaching individuals of all ages about sexuality, as well as 10–40 min interviews with 1000 + American women (diverse in terms of age, race/ethnicity, and sexual identity) about sexual pleasure and orgasm that were conducted in 2014–2015 by colleagues. These colleagues participated in an iterative item development process with the first and fourth author.

Respondents were asked, "Have you ever faked an orgasm (pretended to have one when you didn't really have one)?" (yes—and I still fake orgasm; yes—I used to fake orgasm, but I don't anymore; no—I've never faked orgasm). Those who indicated they had previously faked were asked, "You said you used to fake orgasm but don't anymore. Why did you stop faking orgasm," with the option to select all that applied of seven reasons and the ability to indicate "other" and write in a reason. They were also asked, "Thinking about the times you've faked orgasms, why did you fake?" with five response options and again the option to indicate "other" and write in a reason. The response options for these items are described below. Additionally, respondents were also asked if they had ever masturbated shortly after sex (*yes*, *no*).

Sexual Non-Communication and Reasons for Non-Communication

Respondents were asked, "Has there ever been a time when you wanted to tell a sexual partner how you wanted to be touched during sex, or what you desire or fantasize about, but you decided not to tell him/her?" (yes, no, or N/A—I have never engaged in sexual activities with a partner). Those who answered "*yes*" were asked "What made you decide not to tell your sexual partner how you wanted to be touched during sex?" Respondents could endorse multiple reasons (see below Results and in the associated table).

Recent Sexual Satisfaction

An item from the Female Sexual Function Index (FSFI; Rosen et al., 2000) was asked of women who indicated they were dating, in a relationship, or married: "Over the past 4 weeks, how satisfied have you been with your sexual relationship with your partner?" (very dissatisfied, moderately dissatisfied, equally satisfied and dissatisfied, moderately satisfied, very satisfied). This single-item measure has been used in other sexuality research (e.g., Heiman et al., 2011; Levine, Herbenick, Martinez, Fu, & Dodge, 2018).

Specific Sexual Communication

Women were asked to indicate their level of agreement (strongly disagree, disagree, agree, or strongly agree) for the following statements: (1) I find it easy to use words like "clitoris" when I talk with my partner about sex and pleasure; (2) My partner and I are able to talk specifically about what makes sex more pleasurable for us; (3) It's embarrassing to talk about sex with my partner in explicit ways; and (4) I would rather not talk about sex with my partner(s); I think it should just come naturally to us. The Cronbach alpha for these four sexual communication items was 0.74.

Statistical Analysis

Analyses were conducted using the Stata version 14 software (StataCorp, 2015). Given the focus of the study on partnered experiences, we limited analyses to women who reported ever having engaged in vaginal intercourse, receptive oral sex, or who had received vulva/vagina touching from a partner.

Weighted descriptive statistics were calculated for sociodemographic characteristics of the analytic sample, as well as for the prevalence of, and reasons for, faking (and no longer faking) orgasm. Weighted descriptive statistics were also calculated for reasons for sexual non-communication. Subsequently, reasons for sexual non-communication were examined across age groups and assessed for their associations with sexual satisfaction and faking orgasms. To identify reasons for sexual non-communication that are associated with sexual satisfaction and faking orgasms, separate univariate models were conducted (data not shown). To account for multiple comparisons, a Bonferroni correction was applied so that the new threshold of statistical significance used was $p < .002$ (0.05/24 = 0.002). Reasons univariately associated with either sexual satisfaction or faking orgasms were entered into a multivariate model to control for potential confounding due to age and current relationship status.

Levels of agreement with various specific sexual communication statements were assessed for their association with sexual satisfaction and faking orgasms, adjusting for categorical age groups and current relationship status. We were interested in sexual communication as part of women's developmental trajectories; therefore, we adjusted for age. Our study design involves women who have had sexual experiences before but may not be currently sexually active, therefore, we also controlled for current relationship status. Ordinal logistic regression was used when assessing relationships with levels of recent sexual satisfaction, and multinomial logistic regression was used when assessing relationships with experiences of faking orgasms (never faked orgasms/used to fake orgasms/still fake orgasms). Results with $p < .05$ were considered statistically significant. Brant tests were conducted to ensure that the proportional odds assumption was not violated for the ordinal logistic regression models.

Multiple imputation methods by chained equations were used to account for missing data. For variables with more than 2% missingness, we created 20 imputations. In addition to variables in the analytical model, we also included demographics, such as age, gender, education, race/ethnicity, and household income in the imputation model. However, missing data were rare in our study (missingness range 0.0–4.8%). All regression models were conducted using the imputed dataset to account for missing data.

Results

Respondent Characteristics

Of the 1055 women aged 18–94 who completed the survey, 47 reported no partnered sex (as described above) and were excluded from subsequent analysis. This resulted in an unweighted sample of 1008 women and a weighted sample of 999 women. Consistent with U.S. demographics, about two-thirds ($n = 663$) of women were White/non-Hispanic, 60.5% ($n = 603$) had some college education or higher, most (92.9%, $n = 919$) self-identified as heterosexual, and over half (55.7%, $n = 552$) were currently married (Table 1).

The median age that women reported first feeling comfortable and confident telling a partner how they wanted to be touched or have sex was 25 (IQR = 25–30; range = 12–65), while 21.1% ($n = 194$) of women reported never having felt this way. The median age that women first felt that their sexual pleasure was valued by or important to a sexual partner was 23 (IQR = 20–28; range = 12–65, mean = 25.0), while 11.1% ($n = 102$) reported never feeling this way.

The Prevalence, and Reasons for, Faking Orgasm and No Longer Faking Orgasm

Although more than half of respondents (58.8%; $n = 571$) had ever faked orgasm, only 19.2% of the total sample ($n = 187$; or 1/3 of those who had ever faked) still did (Table 2). Two-thirds (67.3%) of those who had ever faked orgasm no longer did. The most common reasons for no longer faking were: feeling more comfortable now with sex, whether or not they have an orgasm (46.6%, $n = 178$); feeling more confident with themselves as a woman (35.3%, $n = 135$); and feeling like their partner accepts them and is happy with them, even if they don't have an orgasm (34.0%, $n = 130$). About 8.9% provided other reasons. Specifically, they: had a different partner ($n = 12$), now had sex with women or were "no longer straight" ($n = 2$), started experiencing orgasms often and/or during intercourse ($n = 4$), or various idiosyncratic reasons (e.g., just got fed up with faking; quit using alcohol; I am no longer worried about if

Table 1 Weighted demographic and sexual characteristics of respondents reporting lifetime sexual activity

Characteristics	Total women ($n=999$) % (n)
Age	
18–24	7.7 (77)
25–29	10.3 (102)
30–39	16.7 (166)
40–49	16.5 (164)
50–59	20.3 (202)
60–69	19.1 (190)
70+	9.6 (96)
Race/ethnicity	
White, non-Hispanic	66.4 (663)
Black, non-Hispanic	12.3 (122)
Other, non-Hispanic	6.3 (63)
Hispanic	13.7 (137)
Multiple races/ethnicities	1.3 (13)
Education	
Less than high school	11.6 (116)
High school	28.0 (280)
Some college	30.0 (299)
Bachelor's degree or higher	30.5 (304)
Household income	
< $25,000	20.1 (200)
$25,000–$49,999	23.2 (232)
50,000-$74,999	17.7 (177)
≥ $75,000	39.0 (390)
Geographic region	
Northeast	18.2 (182)
Midwest	21.4 (214)
South	37.4 (373)
West	23.0 (230)
Sexual orientation	
Heterosexual	92.9 (919)
Lesbian/gay	1.6 (16)
Bisexual	5.0 (49)
Asexual	0.4 (4)
Other	0.2 (2)
Current relationship status	
Single and not dating	19.5 (194)
Single and dating	5.0 (50)
In a relationship but not living together	6.7 (69)
In more than one relationship	0.5 (5)
Living together but not married	12.3 (122)
Married	55.7(552)

it will upset my partner if I do not achieve an orgasm; I choose partners now that are more mature and I am more in tune with myself and confident; I'm with the one I love; no longer with controlling ex; only faked because I wasn't into it; I want my partner to know that he isn't doing it right; it did not feel true to the relationship I was trying to build with my partner).

The most common reasons women gave for having previously faked orgasm were because they wanted their partner to feel successful (57.1%, $n=218$), they wanted sex to end because they were tired (44.6%, $n=170$), and they liked the person and didn't want them to feel bad (37.7%, $n=144$). Some of the women who provided additional reasons indicated that they didn't know what an orgasm was supposed to be like, a partner "almost demanded them," they wanted sex to be over "so he would leave me alone," difficulty having orgasm due to being an incest survivor, being "young and insecure," being "young and thought I was 'suppose' to," and no longer being in love with a partner. Finally, 38.2% ($n=372$) of women indicated they had ever masturbated shortly after sex.

Sexual Non-Communication and Reasons for Non-Communication

As shown in Table 3, more than half of women (55%; $n=528$) reported they had wanted to communicate with a partner regarding sex but decided not to. The most commonly endorsed reasons were: "I didn't want to hurt their feelings" (42%, $n=221$), "I didn't feel comfortable going into detail" (40%, $n=209$), and "I would have felt embarrassed" (38%, $n=196$). The youngest respondents (18–24 years olds) were significantly more likely to indicate they didn't know how to ask for what they wanted, were worried about being rejected, and didn't think they would sleep with this partner again, so it didn't matter.

Sexual Non-Communication and Associations with Recent Sexual Satisfaction and Faking Orgasm

Reasons for non-communication significantly associated with recent sexual satisfaction or faking orgasms were assessed in a multivariate model also adjusting for age and current relationship status (Table 4). Not communicating due to feeling uncomfortable going into detail about sex or not thinking one's partner would care about their pleasure were significantly associated with lower sexual satisfaction in the past 4 weeks. Not communicating due to concerns about one's partner thinking they are "perverted" was significantly associated with still faking orgasm, even after controlling for age and relationship status.

Associations Between Specific Sexual Communication and Recent Sexual Satisfaction

The relationship between specific kinds of sexual communication and recent sexual satisfaction was assessed (Table 5). Women who strongly agreed that they find it easy to use words like "clitoris" to communicate with their partners were more

Table 2 Faking orgasm: Prevalence and reasons

	Women % (*n*)
Ever faked orgasm (*n* = 970)	
Yes—and I still fake orgasm	19.2 (187)
Yes—I used to fake orgasm, but I don't anymore	39.6 (384)
No—I've never faked orgasm	41.2 (399)
Reasons for stopping to fake orgasms (*n* = 383[a])	
I learned how to have orgasms more consistently, so I didn't need to fake anymore	28.8 (110)
I feel more comfortable now with sex, whether or not I have an orgasm	46.6 (178)
My partner started paying better attention to my needs and learned to pleasure me	23.4 (90)
I no longer feel pressured to have an orgasm	30.9 (119)
I feel more confident with myself as a woman	35.3 (135)
I feel like my partner accepts me and is happy with me, even if I don't have an orgasm	34.0 (130)
I am no longer sexually active, so I don't have the opportunity to fake anymore	18.2 (70)
Other, please describe	8.9 (34)
Reasons for faking orgasms (*n* = 383[a])	
You really liked the person and didn't want them to feel bad	37.7 (144)
You were hopeful that, with practice, the person could learn to give you an orgasm	22.9 (88)
You wanted sex to end because you were tired	44.6 (170)
You wanted sex to end because it didn't feel good	28.5 (109)
You wanted your partner to feel successful	57.1 (218)
Other, please describe	2.8 (11)
Ever masturbated shortly after sex (*n* = 974)	
Yes	38.2 (372)
No	61.8 (602)

[a]Total *n* does not add up to 384 due to missing data

Table 3 Reasons for non-communication in relation to respondent age

Variables	Total	Age (years)						
		18–24	25–29	30–39	40–49	50–59	60–69	70 +
	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)
Wanted to communicate with partner regarding sex but decided not to	55.4 (528)	60.6 (46)	48.4 (48)	65.4 (105)	53.3 (83)	53.9 (103)	50.5 (91)	57.5 (52)
Reasons for not communicating with sexual partner								
I didn't want to hurt their feelings	42.4 (221)	53.3 (25)	36.2 (17)	42.7 (43)	38.2 (32)	47.5 (49)	37.7 (34)	42.6 (22)
I didn't feel comfortable going into detail	40.2 (209)	59.5 (27)	28.6 (14)	41.8 (42)	39.9 (33)	38.9 (40)	37.9 (34)	38.2 (19)
I would have felt embarrassed	37.7 (196)	49.1 (23)	41.3 (20)	40.5 (40)	49.0 (40)	26.7 (27)	34.6 (31)	27.6 (14)
I didn't know how to ask for what I wanted*	35.0 (182)	58.4 (27)	41.7 (20)	36.2 (36)	30.7 (25)	21.3 (22)	39.8 (36)	31.4 (16)
I didn't want to seem too demanding	18.3 (95)	35.2 (16)	21.6 (10)	17.8 (18)	16.7 (14)	13.6 (14)	16.1 (15)	16.6 (8)
It didn't feel important enough to bring up	17.9 (93)	24.1 (11)	22.2 (11)	18.0 (18)	14.1 (12)	17.3 (18)	13.7 (12)	23.2 (12)
I was worried about being rejected*	11.7 (61)	29.8 (14)	2.0. (1)	18.6 (19)	9.1 (8)	9.1 (9)	9.5 (9)	4.0 (2)
I didn't think they would understand	10.2 (53)	7.9 (4)	12.7 (6)	14.7 (15)	9.1 (7)	5.2 (5)	10.5 (10)	12.0 (6)
I didn't want my partner to think I was perverted	10.1 (52)	20.5 (9)	5.0 (2)	10.5 (10)	11.8 (10)	9.5 (10)	9.2 (8)	4.7 (2)
I didn't think my partner would care that much about my pleasure	7.0 (36)	2.1 (1)	0.0 (0)	11.9 (12)	7.9 (4)	4.4 (5)	7.5 (7)	11.1 (6)
I didn't think I would sleep with this partner again, so it didn't matter*	3.6 (19)	14.1 (6)	0.0 (0)	2.5 (3)	2.6 (2)	3.7 (4)	4.2 (4)	0.0 (0)

*$p < .05$ by chi-squared test assessing association with age groups

Table 4 Reasons for not communicating with sexual partner as associated with sexual satisfaction and faking orgasms, controlling for age and relationship status

Variables	Sexual satisfaction in the past 4 weeks			Used to fake versus never faked orgasms			Still fake versus never faked orgasms		
	aOR	(95% CI)	*p* value	aOR	(95% CI)	*p* value	aOR	(95% CI)	*p* value
I didn't feel comfortable going into detail	0.49	(0.36–0.67)	< .001	–	–	–	–	–	–
I didn't think my partner would care that much about my pleasure	0.33	(0.19–0.57)	< .001	–	–	–	–	–	–
I didn't want my partner to think I was perverted	–	–	–	2.06	(0.86–4.96)	.104	3.06	(1.42–6.58)	.005
Age (years)									
18–24	1.00	–	–	1.00	–	–	1.00	–	–
25–29	1.15	(0.35–3.76)	.817	2.05	(0.65–6.47)	.214	0.85	(0.18–3.93)	.827
30–39	0.35	(0.12–0.99)	.049	1.73	(0.63–4.74)	.283	1.70	(0.71–4.09)	.227
40–49	0.40	(0.14–1.20)	.100	1.33	(0.51–3.46)	.551	1.26	(0.52–3.02)	.603
50–59	0.63	(0.22–1.78)	.379	1.36	(0.52–3.54)	.518	0.72	(0.28–1.79)	.461
60–69	0.45	(0.15–1.37)	.154	1.66	(0.70–3.91)	.241	0.86	(0.31–2.40)	.764
70 +	0.58	(0.16–2.165)	.411	1.08	(0.32–3.66)	.901	0.73	(0.21–2.59)	.625
Current relationship status									
Single, not dating				1.00	–	–	1.00	–	–
Dating/in a relationship, not living together	1.00	–	–	1.76	(0.66–4.65)	.249	1.58	(0.57–4.33)	.369
Living together, not married	0.55	(0.26–1.16)	.112	1.07	(0.49–2.33)	.853	0.65	(0.25–1.67)	.363
Married	0.84	(0.43–1.66)	.608	1.02	(0.59–1.76)	.944	0.89	(0.44–1.80)	.750

Odds ratios adjusted for all other variables in the table

likely to report higher levels of sexual satisfaction compared to those who strongly disagreed (Table 6). Women who agreed or strongly agreed with the statement "my partner and I are able to talk specifically about what makes sex more pleasurable for us" were more likely to report greater recent sexual satisfaction compared to those who strongly disagreed. Embarrassment talking with one's partner in explicit ways was consistently associated with decreased levels of recent sexual satisfaction.

Associations Between Specific Sexual Communication and Faking Orgasm

The relationship between sexual communication and faking orgasms was assessed (Table 6). Women who strongly agreed that they find it easy to use words like "clitoris" to talk about sex were less likely to still fake orgasms than those who strongly disagree. Those who agreed or strongly agreed that "my partner and I are able to talk specifically about what makes sex more pleasurable for us" were significantly less likely to still fake orgasms compared to those who disagreed. Higher levels of agreement with the statement "it's embarrassing to talk about sex with my partner in explicit ways" was significantly associated with currently still faking orgasms and also faking orgasms in the past.

Discussion

Findings from the current study are drawn from a U.S. nationally representative probability sample of adult women spanning eight decades of life. They add to a growing body of literature that addresses sexual satisfaction, sexual development, learning, and change. Traditional narratives about women faking orgasm become more complicated when considering that faking orgasm is often part of women's sexual development. These experiences may reflect a process of learning about one's own sexuality, body, assertiveness, partner selection, sexual communication, and self-confidence.

Two-thirds of women who have faked orgasms in the past do not continue to do so. They stop pretending orgasm for varied reasons, most often due to greater sexual comfort, confidence, and feelings of being accepted by one's partner. This finding extends into early adulthood a previously noted aspect of adolescent development described by Hensel, Fortenberry, O'Sullivan, and Orr (2011): that sexual openness and esteem often increase over several years while sexual anxiety decreases. In spite of the many challenges that women experience relevant to gendered norms and traditional scripts that minimize the role of female sexual pleasure and agency, the story our data and others' tell is one of women's persistence, growth, learning, and curiosity. Our findings evoke ideas of women navigating paths through relationships, love, and power differentials to explore and connect with their sexuality. In open-ended responses,

Table 5 Specific sexual communication and sexual satisfaction

Variables	Sexual satisfaction in the past 4 weeks					Association with sexual satisfaction in the past 4 weeks		
	Very dissatisfied	Moderately dissatisfied	Equally satisfied and dissatisfied	Moderately satisfied	Very satisfied			
	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	aOR	(95% CI)	*p* value
I find it easy to use words like "clitoris" when I talk with my partner about sex and pleasure								
Strongly disagree	27.4 (22)	11.8 (9)	15.2 (20)	17.8 (36)	13.4 (35)	1.00	–	–
Disagree	30.3 (25)	33.5 (26)	38.1 (49)	35.6 (73)	28.2 (74)	1.16	(0.77–1.75)	.459
Agree	29.2 (24)	36.5 (28)	34.9 (45)	34.2 (70)	37.7 (100)	1.50	(0.96–2.34)	.071
Strongly agree	13.1 (11)	18.2 (14)	11.8 (15)	12.5 (26)	20.8 (55)	1.77	(1.15–2.72)	.010
My partner and I are able to talk specifically about what makes sex more pleasurable for us								
Strongly disagree	32.2 (26)	4.0 (3)	6.9 (9)	8.6 (17)	6.3 (17)	1.00	–	–
Disagree	33.2 (27)	42.1 (33)	33.7 (44)	33.1 (67)	13.4 (36)	1.32	(0.74–2.37)	.340
Agree	25.2 (21)	47.1 (37)	46.9 (61)	43.1 (87)	45.4 (120)	2.69	(1.58–4.60)	.001
Strongly agree	9.4 (8)	6.9 (5)	12.5 (16)	15.3 (31)	34.9 (92)	6.46	(2.99–13.94)	< .001
It's embarrassing to talk about sex with my partner in explicit ways								
Strongly disagree	18.1 (15)	17.7 (14)	17.4 (23)	25.4 (51)	35.5 (94)	1.00	–	–
Disagree	27.7 (23)	33.4 (26)	35.2 (46)	37.6 (76)	37.8 (100)	0.70	(0.49–1.01)	.055
Agree	39.1 (32)	36.4 (29)	38.5 (50)	29.9 (60)	20.4 (54)	0.40	(0.28–0.56)	< .001
Strongly agree	15.1 (12)	12.5 (10)	8.8 (11)	7.2 (15)	6.4 (17)	0.32	(0.16–0.63)	.002
I would rather not talk about sex with my partner(s); I think it should just come naturally to us								
Strongly disagree	21.1 (17)	14.4 (11)	15.6 (20)	22.9 (46)	33.2 (88)	1.00	–	–
Disagree	31.2 (26)	46.7 (36)	37.2 (48)	36.5 (74)	36.4 (96)	0.58	(0.40–0.85)	.006
Agree	41.8 (34)	33.1 (26)	40.4 (52)	33.0 (67)	23.2 (61)	0.42	(0.29–0.60)	< .001
Strongly agree	5.9 (5)	5.9 (5)	6.8 (9)	7.6 (15)	7.2 (19)	0.69	(0.42–1.13)	.136

Odds ratios adjusted for age (categorical) and current relationship status

women also wrote about gendered dynamics in relationships as well as aspects of their sexual selves that they connected to youth, inexperience, and/or unhealthy relationships. As these responses were limited in number (e.g., they were volunteered in text responses and these particular constructs were not assessed sample-wide), subsequent research might explore these aspects of women's sexual development in more systematic ways.

Further, the present study adds to the literature by showing, among the general population of women in the U.S., some of the kinds of sexual communication (and non-communication) linked to women's sexual satisfaction and orgasm experience. Consistent with previous research (e.g., Hurlbert, 1991; Mitchell et al., 2013; Richters et al., 2014), we found that ease of sexual communication is associated with higher levels of women's self-reported sexual satisfaction. This finding is congruent with the idea that sexual partners benefit by sharing detailed directions or preferences with one another in order to guide stimulation on distal parts of their bodies. As suggested by Hensel et al. (2011), feeling capable, comfortable and/or confident communicating with a partner in sexually explicit ways likely builds on a variety of knowledge, experiences, and skills. These may include learning a vocabulary for sexual acts and genital parts (formally through education programs or informally through friends, partners, or sexuality-related media), exploring one's own body alone or with a partner to discover one's sexual response and preferred stimulation techniques, and being encouraged, rewarded, or at least not shamed by a partner for sharing one's preferences.

As Tolman (1994) and Fine (1988) have noted, young women are often not supported in learning how to give voice to their sexual desires or pleasures, which can impact adult sexual development and experience. One of the more striking findings in our study is that women are, on average, in their mid-twenties before they feel comfortable and confident sharing how they would like to be touched or have sex, as well as before they feel like their sexual pleasure has been valued by a partner. Also, about 1 in 5 women in our study still did not feel comfortable and confident discussing their sexual preferences and 1 in 10 had yet to feel that their sexual pleasure mattered to a partner. American women's average age of first coitus is at around age 16 or 17 (Goldberg, Haydon, Herring, & Halpern, 2014; Martinez, Copen, & Abma, 2011), with many young women reporting other partnered sexual activities (such as oral sex or partnered masturbation) prior to that (Fortenberry et al., 2010). Thus, young women commonly engage in varied kinds of partnered sex for nearly a decade before they feel like their sexual pleasure matters to a partner—if they ever do.

Table 6 Specific sexual communication and faking orgasms

Variables	Faking orgasms			Used to fake orgasms versus never faked orgasms			Still fake orgasms versus never faked orgasms		
	Never faked orgasms	Used to fake orgasms	Still fake orgasms						
	% (*n*)	% (*n*)	% (*n*)	aOR	(95% CI)	*p* value	aOR	(95% CI)	*p* value
I find it easy to use words like "clitoris" when I talk with my partner about sex and pleasure									
Strongly disagree	15.5 (59)	13.4 (51)	22.8 (42)	1.00	–	–	1.00	–	–
Disagree	31.6 (120)	32.5 (124)	32.6 (60)	1.27	(0.77–2.08)	.335	0.76	(0.41–1.42)	.381
Agree	37.4 (142)	37.5 (143)	34.5 (64)	1.17	(0.70–1.95)	.538	0.65	(0.37–1.16)	.140
Strongly agree	15.5 (59)	16.6 (63)	10.0 (19)	1.16	(0.58–2.32)	.679	0.42	(0.19–0.90)	.027
My partner and I are able to talk specifically about what makes sex more pleasurable for us									
Strongly disagree	11.2 (42)	7.5 (28)	18.1 (34)	1.00	–	–	1.00	–	–
Disagree	25.5 (97)	26.2 (99)	27.3 (51)	1.59	(0.92–2.77)	.098	0.69	(0.38–1.24)	.209
Agree	42.0 (160)	46.4 (175)	42.4 (79)	1.66	(1.00–2.75)	.052	0.61	(0.38–0.97)	.038
Strongly agree	21.3 (81)	19.9 (75)	12.3 (23)	1.31	(0.77–2.35)	.364	0.30	(0.15–0.57)	.001
It's embarrassing to talk about sex with my partner in explicit ways									
Strongly disagree	31.3 (119)	22.5 (86)	18.3 (34)	1.00	–	–	1.00	–	–
Disagree	34.6 (131)	38.9 (148)	35.8 (67)	1.57	(0.99–2.51)	.057	1.78	(1.16–2.74)	.010
Agree	26.4 (100)	29.5 (112)	35.9 (67)	1.59	(0.99–2.54)	.054	2.44	(1.63–3.66)	< .001
Strongly agree	7.7 (29)	9.1 (35)	10.0 (19)	1.72	(0.96–3.10)	.067	2.18	(1.19–3.99)	.013
I would rather not talk about sex with my partner(s); I think it should just come naturally to us									
Strongly disagree	27.2 (103)	22.9 (87)	21.6 (40)	1.00	–	–	1.00	–	–
Disagree	35.6 (135)	39.6 (150)	37.5 (70)	1.35	(0.95–1.92)	.091	1.41	(0.85–2.34)	.178
Agree	29.9 (114)	30.9 (117)	37.9 (71)	1.28	(0.76–2.16)	.339	1.72	(1.08–2.73)	.024
Strongly agree	7.3 (28)	6.6 (25)	3.1 (6)	1.08	(0.53–2.18)	.828	0.58	(0.24–1.39)	.216

Odds ratios adjusted for age (categorical) and current relationship status

Subsequent Research

Research on midlife couples indicates that valuing a partner's orgasm is significantly associated with greater sexual satisfaction as well as relationship duration (Heiman et al., 2011). Subsequent research might explore how women's sexual developmental pathways might be influenced by earlier experiences of feeling like their pleasure, orgasm, or subjective experience of sex matters to, or is validated by, their sexual partner(s). Additionally, such research might investigate these years during young adulthood more closely: after adolescence, how do adult women continue to assemble new pieces of knowledge, skills, bodily changes, and solo and partnered experiences to adjust their sexual repertoires, orgasm experiences, and sexual partner and/or relationship choices? What kinds of education, media, art, or conversations among one's family, friends, or sexual partners might enhance women's sexual agency and pleasure? Additionally, subsequent research might pay particular attention to the 19% of women who continue to fake orgasm. Beyond youth and inexperience, why do women continue to pretend to have a sexual experience that they are not indeed having? How is persistent faking tied into women's fears of rejection or partner infidelity, their ideas of femininity or "good sex," or their desire to end a sexual encounter for any number of reasons? And how can sexual health educators, clinicians, and even policy makers (e.g., in the case of school-based sexuality education) better support women in their sexual learning and development?

Implications

Findings from our study underscore the importance of open and frank conversations about the vulva, clitoris, vagina, and sexual stimulation, which has important implications for sexuality educators and clinicians (see Kelly et al., 2004). Sexuality educators might consider how lesson plans can be adjusted to grow both knowledge and comfort related to talking about the clitoris and other detailed ways of talking about sexual stimulation, particularly given other research showing that most women report having specific preferences for genital stimulation in terms of location, shape/style of touch, and pressure (Herbenick et al., 2018). Clinicians can support healthy sexual development by encouraging direct conversations around the body and sexuality (as well as utilizing accurate language for the vulva, vagina, clitoris, and labia), making space for these critical conversations during clinical examinations from adolescence through older age (Alexander et al., 2014; Haider et al., 2017). Clinical examinations may play an important role in women's learning

vocabulary related to their bodies and in becoming comfortable using such terms. Individuals who make decisions regarding sexuality education in schools (e.g., policymakers, parents, school personnel, sexuality educators, and health educators) would be wise to focus on increasing fact-based sexual education, sexual communication, and comfort (e.g., Braeken & Cardinal, 2008; Kontula, 2010).

Our data also have implications for the general population, the millions of women and men who would benefit from being more receptive to their partners' attempts to communicate about sex, pleasure, and techniques with them. Listening to a partner's desires, and responding favorably to them (whether by reserving judgment or acting on the partner's requests, if agreeable, to engage in certain kinds of touch, stimulation, or sex), may help couples to create more pleasurable sexual experiences together. As Hensel et al. (2011) note, the repetition of pleasurable sexual experiences may enhance individuals' sexual comfort and help to decrease sexual anxiety. Communicating with a partner about sexually intimate information or sexual preferences can lead to greater sexual satisfaction (MacNeil & Byers, 2005) and enhance orgasm likelihood (Kelly et al., 2004), yet learning to communicate in these ways often takes time and practice.

Strengths and Limitations

A significant strength of the study is that data are from a U.S. probability sample of adult women, thus allowing for the generalizability of findings to the larger non-institutionalized, non-homeless U.S. population. Also, the response rate of individuals who actually clicked on the link to learn about the study topic was high at 88% (the overall response rate of those invited to participate was 43.7%). Further, data collection occurred via the Internet, which has been shown to facilitate respondents' reporting on sensitive topics such as sexuality (Mustanski, 2001). We also sampled women across the adult lifespan, which is rare among nationally representative probability samples focused on sexuality (e.g., Herbenick, et al., 2009) as many utilize upper age limits in the 1960s or 1970s (e.g., Laumann, Gagnon, Michael, & Michael, 1994; Mitchell et al., 2013; Richters et al., 2014) or are focused on more narrow ages ranges, such as the National Social Life, Health, and Aging Project, which has provided important data on Americans ages 57–85 (Lindau et al., 2007).

Our study had several limitations. As with most nationally representative probability surveys, the survey was limited to those with a physical address and was available in just one language (in our case, the English language). Our survey was also retrospective and thus items where we asked respondents to recall an experience earlier in their lives may have had their responses influenced by memory or experiences occurring since that time. A longitudinal design would be better situated to assess changes over time. Further, as with other questionnaire-based data collection, we were unable to clarify questions that respondents may have had about items. Additionally, due to space limitations, we utilized a single-item measure of sexual satisfaction that has been used in previous research (e.g., Heiman et al., 2011; Levine, Herbenick, Martinez, Fu, & Dodge, 2018). Even though single-item measures of sexual satisfaction have been found to positively correlate with multi-item measures of sexual satisfaction (e.g., Mark, Herbenick, Fortenberry, Sanders, & Reece, 2014), it is possible that results may have differed had a multi-item measure been used as in the FSFI. We also utilized items about women's current experiences with sexual communication to examine differences between those who used to fake orgasm and those who no longer do. We felt that exploring these present approaches to communication made sense; however, it may be useful for subsequent research to consider different ways of measuring this (e.g., perhaps measuring women's prior approaches to sexual communication). Finally, our study was cross-sectional and correlational and thus no directionality can be established. For example, while more comfortable communication can lead to sexual satisfaction it is also the case that women who are sexually satisfied may find it easier to communicate about their sexual lives.

Conclusions

In this U.S. probability sample of adult women, we found that sexual satisfaction was associated with feeling comfortable communicating about sexuality in open, detailed ways. We also found that, although most American women have faked or pretended orgasm, few continue to do so; greater comfort, confidence, and partner acceptance were associated with no longer faking. Findings suggest a potentially important role for sexual partners as well as sexual health professionals to play in supporting adult women's sexual development through fostering positive, pleasurable, and satisfying sexual conversations and experiences.

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Compliance with Ethical Standards

Conflict of interest Debby Herbenick has served as a scientific consultant to OMGYes.com.

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