



# Women's Orgasm and Its Relationship with Sexual Satisfaction and Well-being

Marie-Feline Dienberg<sup>1</sup> · Tanja Oschatz<sup>2</sup> · Jennifer L. Piemonte<sup>3</sup> · Verena Klein<sup>4</sup>

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## Abstract

**Purpose of review** Women's orgasms have been subject to controversial discussions among scholars throughout history. Even today, narratives of women's orgasm being complicated or less important (cp. to men's) for their sexual functioning and satisfaction are prevailing and reflected in gendered sexual scripts. This review aims to compile evidence for the relationship between orgasm and sexual well-being in women. We consider orgasm's role in women's sexual pleasure, sexual satisfaction, and desire in the context of both casual and committed sexual encounters.

**Recent findings** Substantial evidence supports a significant link between orgasm and sexual pleasure, satisfaction, and desire in women. Orgasm has been identified as an important factor in predicting relational satisfaction as well as positive outcomes of casual sex. For instance, orgasming during casual sex completely accounts for the persistent gender differences researchers have observed in emotional and evaluative responses to casual encounters.

**Summary** As we cover in this review, there is no shortage of research demonstrating the myriad of favorable physical, psychological, and interpersonal associations with women's orgasms across relational and sexual contexts. Because orgasm has continually surfaced as such a critical component of women's positive sexual experiences, we argue the female orgasm should be taken seriously as a meaningful site of research on women's well-being, and orgasm equality should be taken seriously in the pursuit of gender equality.

**Keywords** Women's orgasm · Sexual well-being · Sexual satisfaction · Sexual pleasure · Desire · Gendered sexual scripts

## Introduction

The female orgasm has been surrounded by many myths and misconceptions, including a disbelief in its relevance that can still be observed today [1]. At one point in history, women's orgasms were deemed a necessary element for conception. With this particular narrative's debunking, contemporary sexual scripts ascribe orgasms a minor—if not absent—importance to women's sexuality [2, 3].

Clinicians have long debated not only the question of *whether* orgasm is important for women, but also *how* women are supposed to experience orgasm [e.g., vaginal vs. clitoral orgasm, 1, 4]. The lack of agreement among professionals has contributed to normalizing the idea that women's orgasms are unnecessary, or a “bonus” [1, 4]. This is in contrast with the male orgasm, the importance and necessity of which goes largely uncontested.

Imagine that Peter, a 35-year-old man, does not experience orgasms during sex with his partner and is very satisfied with his sex life. Peter will probably be met with incomprehension from most people, since orgasms are considered indispensable for a man's satisfaction. Accordingly, recent research found that both women and men (still) believe that men are more deserving of orgasm than women in both casual and committed sexual encounters [5]. The idea that women, on the other hand, do not need orgasms for sexual satisfaction is very common. Several qualitative studies found that in women's definitions of sexual pleasure, having an orgasm played a minor role as compared to other themes like emotional intimacy or partner satisfaction [6–8].

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✉ Verena Klein  
v.klein@soton.ac.uk

<sup>1</sup> Department of Psychology, University of Cologne, Cologne, Germany

<sup>2</sup> Institute for Social and Legal Psychology, Johannes Gutenberg-University, Mainz, Germany

<sup>3</sup> Departments of Psychology and Women's and Gender Studies, University of Michigan, 530 Church St, Ann Arbor 48109, USA

<sup>4</sup> School of Psychology, University of Southampton, B44 University Rd, Southampton SO17 1PS, UK

Some researchers have called out the need for orgasm equality [e.g., 9], marking the orgasm gap between women and men as an issue of gender justice. From this perspective, orgasms are a resource worth pursuing for women's equality because orgasm is by and large a positive, beneficial, and rewarding experience. Not only is orgasm physiologically rewarding thanks to the substantial release of dopamine, but by activating the cerebellum, orgasms are associated with increased relaxation, improved sleep, pain relief, increased immune system functioning, and positive mental health like decreased anxiety and depression [for a review see, 10]. Neuroscience research has further identified that the post-orgasm brain is in "learning mode" from the perspective of learning patterns of reward and punishment [11, 12]. For example, researchers used a differently-scented stimuli pre and post orgasm to condition rats to different sexual partners. They found that over time, both sexes of rats developed preferences for sexual partners with whom they had more orgasms [11].

Considering the ongoing ambivalent socio-cultural narrative of women's orgasm being not that important on the one hand and/or the ultimate indicator of a fulfilling sexuality on the other hand this review aims to discuss recent evidence on the question: How is orgasm experience related to women's sexual well-being? In the present review, we will focus on the relationship of women's orgasm with a. sexual pleasure, b. sexual satisfaction, and c. desire both in relationship and casual sex contexts.

## The Importance of Orgasm for Women's Sexual Pleasure

Orgasm experience and sexual pleasure in women are highly interwoven. Sexual pleasure is broadly defined as "those positively valued feelings induced by sexual stimuli" [13], of which orgasm may be one aspect.

Despite the presupposition that women's intimate fulfillment comes from the emotional aspects of their partnerships, orgasm is actually quite important to women's pleasure during partnered sex [14, 15]. Across 119 interviews with primarily young, heterosexual women, Opperman et al. [16] found that more than half of participants describe orgasm using the words pleasure or pleasurable, and as the "ultimate" pleasure and as "most amazing feeling in the world." In fact, when discussing physical pleasure during sex without orgasm, several participants identified this pleasure as less intense than associated with orgasm [16]. Other studies found that physical pleasure and desiring orgasms were factors related to "good sex" [17]. An interview study with 18 black US students (50% women) also found a relationship between sexual pleasure and experiencing orgasm [18]. In another study, Thorpe and colleagues [19] asked black women about their "peak pleasure" and found that 18.4% of participants define orgasm as one possible facilitator

of "peak pleasure" when emotional (e.g., enjoyment, connection), mental (e.g., being present), and physical (e.g., arousal, vaginal wetness) foundations were set.

Quantitative data additionally support a positive association of orgasm experiences and sexual pleasure in women. In a study of over 6000 college women, orgasming during their most recent casual sex was the most important variable predicting enjoyment of the encounter [20]. Sexual pleasure was also significantly associated with orgasm frequency in a representative German sample of women [21] and correlated with orgasm during partnered sex ( $r=0.44$ ;  $p<0.01$ ) [22]. Going beyond the mere occurrence of orgasm and considering orgasm quality, Herbenick and colleagues [23•] examined women's experiences with sexual pleasure, orgasm, and genital touching. Using a probability sample from the USA including women aged 18 to 94, they found that 77.5% of women feel their orgasms vary in quality. Major factors that enhanced orgasmic pleasure were "spending time to build up pleasure" (77.2%), "having a partner who knows what I like" (58.6%), "emotional intimacy" (55.5%), "not feeling rushed" (43.9%) and "having my clitoris touched at the same time we're having intercourse" (39.0%) [23•].

## The Importance of Orgasm for Women's Sexual Satisfaction

In research, there is also a boundless supply of evidence for the importance of orgasm to women's sexual satisfaction and relational satisfaction [24, 25]. As an evaluative cognition, sexual satisfaction is a multifaceted construct with widely varying across studies [26]. One general definition describes satisfaction as "the degree to which an individual is satisfied or happy with the sexual aspect of his or her relationship" [27]. It has, however, previously been observed that the measurement of sexual satisfaction underlies construct validity issues across genders [26]. Men tend to orient their sexual satisfaction ratings on their own physical pleasure, while women are more likely to define their sexual satisfaction on their partner's pleasure and feelings of safety [26, 28]. This may be why researchers observe highly sexually satisfied women in sexuality studies: these other components of sexual fulfillment could allow women to maintain high satisfaction despite fewer or less guaranteed orgasms.

It is important to keep these construct validity issues in mind when looking closer at the relationship between women's orgasms and sexual satisfaction. Although inconsistencies have been found regarding this relationship [29•], most studies do find a positive correlation between sexual satisfaction and orgasm occurrence [30–32, 31]. Another study with participants across different age groups found that women who did not experience orgasmic dysfunctions or distress throughout their lives were far more likely to be sexually satisfied than those who did [14]. Furthermore, orgasm outshone other factors of sexual functioning (i.e., lubrication) in predicting sexual satisfaction [33]. Women

who orgasm more frequently were also more likely to be satisfied with their relationships and communicate better with their partners [34]. Although the strength of this association varies from small or moderate to large effect sizes [e.g., 32•, 33, 35], there appears to be a significant relationship between women's orgasms and their sexual satisfaction.

Some studies suggest that orgasm rates are even more important for women's than men's satisfaction. Both Waterman and Chiauzzi as well as Leonhardt and colleagues found that among the heterosexual couples participating in their study, orgasm consistency was significantly associated with sexual satisfaction for females, but not for males [31, 36]. However, these results are limited by the small variance in men's orgasm frequency—above 90% for most of the men in the sample—preventing more accurate estimates of the association between orgasm and satisfaction among men [31]. Similarly, unlike the male participants in their study, Wetzel, Cultice, and Sanchez found that women report desiring an orgasm frequency rate markedly greater than their current frequency rate [37].

Gender differences in orgasm relevance for sexual satisfaction may not primarily lie in the strength of the association but rather in the *form* of this relationship. One recent study by Leavitt and colleagues showed that the relationship between orgasms and satisfaction for women, but not men, is curved rather than linear [29•]. For each unit of increase in orgasm consistency, the corresponding increase for sexual satisfaction gradually became smaller. Above the threshold of orgasming 60–80% of the time, there was barely any increase in women's reported sexual satisfaction as the high end of the sexual satisfaction scale was almost reached. This means that a woman orgasming in 1/10 encounters showed lower rates in sexual satisfaction compared to a woman experiencing orgasm in 6/10 encounters, but there was no difference between the latter and a woman orgasming in 10/10 encounters.

## The Importance of Orgasm for Women's Sexual Desire

Sexual pleasure is a significant motivating factor for future sexual activity. In simple terms, those who enjoy sex are more likely to want to engage in sex again [13, 38–40]. Considering orgasm as an aspect of sexual pleasure—what role may orgasm play for sexual desire in women? Compared to orgasm and sexual pleasure, relatively less research focuses on the association between orgasm and sexual desire. In one primary study, anticipated pleasure and orgasm centrality were significant predictors of heterosexual women's desire for sex in four cross-national samples (USA, Canada, Germany, and Denmark) [40]. Other studies have also found positive correlations between sexual desire measures and subjective orgasm experience [41, 42]. A recent study examined if the gender gap in sexual desire (i.e., men report more frequent desire than women) can be explained

by orgasm experience at sexual debut [43]. Results provide evidence that women's sexual desire varied based on experiencing orgasm at sexual debut and diverged from men's desire only when orgasm did not occur. Such effects were not observed for satisfaction, nor for men. This underscores the importance of orgasm equality and suggests its absence at sexual debut may play an unacknowledged role in gender differences in sexual desire by setting the “bar” for what women learn they can and cannot expect for their sexual experiences.

## Women's Orgasm Experiences in Casual Sex Contexts

Even in research on casual sex, which is widely understood as incompatible with women's sexual preferences and proclivities, women who orgasmed were found to report increased sexual agency and sexual subjectivity, as well as decreased self-objectification, stereotypical beliefs about gender, and gender-role adherence [3, 44]. In one study of young women's casual sex experiences, orgasm was associated with less regret [45]. In another study with young adults, Woerner and Abbey looked at individuals' reactions to their most recent casual sex encounters and found strong results using three items to measure sexual pleasure: acute sexual satisfaction, overall sexual satisfaction, and orgasm presence [46]. In fact, this conceptualization of sexual pleasure (i.e., orgasm) was the most proximal predictive factor in a model of positive responses to casual sex [46], a finding reproduced in other, high-powered studies [e.g., 20, 47•].

Orgasmic pleasure is not only associated with positive outcomes of casual sex, but also with antecedents of casual sex. Women were more likely to have casual sex when they anticipated a pleasurable encounter [48–50]. Researchers have similarly found that pleasure-seeking motives (experiencing orgasm, pleasure, fun) for engaging in casual sex positively relate to orgasm consistency [51]. This effect was stronger when assertiveness was included in the model [51], supporting earlier findings that stress the positive effect of self-efficacy on sexual pleasure and orgasm [52, 53]. These studies suggest that orgasm is indeed a critical component of the sexual pleasure women experience during casual sex.

## Women's Orgasm Experiences in Queer Sexual Contexts

When assessing their sexual satisfaction in the context of a committed relationship, women from different social locations (e.g., race, age, sexual identity) all seem to prioritize variables around intimacy over orgasm itself [7, 17, 19]. Even though orgasmic pleasure may not be a required component of sexual satisfaction for them, they still considered it a

desirable, welcome, and highly pleasurable experience. Heterosexual women are able to reach orgasm in the same time allotment as their male counterparts during masturbation or solo-sex experiences [54, 55], and the extent of their clitoral knowledge predicts their orgasm rates during masturbation [22, 56]. However, it seems their clitoral knowledge was unable to translate to their partnered heterosexual encounters because this variable did not predict the women's orgasms during sex [22]. The traditionally gendered sexual script about orgasm (e.g., it is more important for men compared to women to have an orgasm) negatively mediated the relationship between clitoral knowledge and orgasm experience.

Importantly, queer scripts (compared to conventional heterosexual scripts) are more likely to value egalitarianism or equality of experience between partners [57]. Queer sexual scripts also prioritize reciprocity and variety in bodily stimulation techniques (e.g., oral and manual stimulation), which are more likely to lead to orgasm in women than PVI [43]. This helps explain the higher orgasm rates observed in lesbian couples as compared to women in relationships with men [43, 58, 59]. In sum, women in queer sexual contexts are more likely to have both relational intimacy and mutual orgasmic pleasure than women in heterosexual contexts.

## Discussion & Conclusion

Orgasm is a source of women's sexual well-being, a significant factor in their feelings of satisfaction and sexual pleasure, and desire for future sexual activities. Although some women may find sexual encounters to be highly pleasurable even if they do not orgasm [60], orgasm has repeatedly been found to play a crucial statistically predicting women's sexual pleasure and satisfaction. Women, of course, desire sex for a variety of reasons above and beyond sexual pleasure and orgasm. Both women and men at times desire emotional intimacy from sexual activity or may have sex to express love within the context of an ongoing committed relationship [61, 62]. However, the existence of these motives does not nullify the relevance of physical pleasure and orgasm for sexual well-being. Noticeable, gendered sexual scripts and contexts mediate the probability of women experiencing orgasm and labeling it as important for their sexual well-being.

## Complicated Feelings

Beyond the links to sexual satisfaction and positive emotional reactions, research indicates more complicated findings surrounding women's feelings about orgasm. When women are asked directly about the role orgasm plays in their lives, women often explicitly state that they do not care whether or not they orgasm [20, 63, 64]. However, indirectly, another story emerges.

Women who orgasm are much more satisfied with encounters than those who do not. Indeed, women are five times more likely to enjoy a sexual encounter if they orgasmed during the experience [20]. In sum, orgasm is strongly related to sexual satisfaction, even though women indicate it is not important for them.

A great deal of this incoherence may be explained when considering expectations and the importance women attribute to their own orgasms. Regarding orgasms as relevant for one's sexual well-being was found to be one of the strongest predictors of orgasm frequency [65]. So, in turn, the relationship may be simple: if I experience orgasm then I expect orgasm, and if I expect orgasm, it becomes more relevant for my sexual satisfaction, desire and pleasure. This implies that orgasms are not irrelevant for female sexual well-being, but rather the lower frequency of their occurrence may lead women to alter their expectations [15], and say that they are fully satisfied even if they orgasm "only" 60% of the time.

Even with shifting gender roles in contemporary U.S. culture [66], women are expected to act passively rather than agentically when it comes to sexual encounters [67, 68]. However, taking an agentic approach to sex may have positive benefits for women—for example, research indicates that taking on an empowered role during sex positively relates to their overall sexual satisfaction [52, 69, 70] and orgasm occurrence among women [69, 71]. Recently, Wongsomboon and colleagues again showed the importance of autonomous motives (e.g., sexual pleasure) for women's sexual well-being [51]. Although sexual agency is correlated with sexually pleasurable outcomes, research shows that many women restrict the expression of sexually agentic behaviors for fear of backlash [72, 73]. Acting in accordance with traditional sexual norms, consequently, might protect individuals against social penalties and the risk of being perceived as a less desirable (sexual) partner [74, 75]. What is now needed is to challenge the sociocultural marginalization of women's pleasure and the misunderstandings surrounding women's orgasms.

## Promoting Women's Pleasure

Throughout this review, we point to the importance of promoting pleasure and orgasm for women's sexual health and gender equality with men. At the same time, it bears mentioning that a hyper focus on orgasm can counterproductively create undue pressure to orgasm [63]. Because orgasm has continually surfaced as an important component of women's sexual well-being (especially in casual sex), we argue orgasm should be taken seriously as a meaningful site of intra- and interpersonal psychological processing. To meet concerns around overvaluing orgasm for sexual pleasure [e.g., 63, 76], future studies may explicitly ask for orgasmic pleasure alongside other measures of sexual pleasure and satisfaction, and simple orgasm occurrence.

Practically, an emphasis on pleasure and orgasm is important because contextual and cultural factors continue to restrict women's sexual expression and desire compared to men's sexuality [40, 77]. Feminist scholars have provided numerous strategies for promoting sexual pleasure in women and closing the gender orgasm gap [78]. These include improved media representation of women's sexualities, accurate sex education materials (e.g., school books illustrating the clitoris), and challenging the coital imperative by, for instance, expanding sexual repertoires. Critically discussing the autonomous, self-determined wish of wanting to experience an orgasm opposed to wanting to orgasm for her partner's sexual self-esteem (e.g., feelings of masculinity) is similarly crucial [78].

Reflecting on their commonly-employed sexual scripts and consuming pleasure-enhancing knowledge has been identified as a successful approaches for increasing heterosexual women's sexual well-being [79, 80]. A holistic approach in deconstructing sexual scripts and gendered power dynamics must also adapt an intersectional perspective on sexual pleasure [81–83]. In this way, light might be shed on implicit privilege it is to access orgasm and sexual pleasure and we may open up pathways to the pursuit of pleasure equality among different social locations (e.g., gender, race, sexual identity, abilities, etc.) [8, 84, 85].

As we have reviewed, there is no shortage of research demonstrating the myriad of favorable physical, psychological, and interpersonal associations with women's orgasms across personal, relational and sexual contexts. Because orgasm has continually surfaced as such a critical component of women's positive sexual experiences, we argue the female orgasm should be taken seriously as a meaningful site of research on women's well-being, and orgasm equality should be taken seriously in the pursuit of gender equality.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare no competing interests.

**Human and Animal Rights and Informed Consent** This article does not contain any studies with human or animal subjects performed by any of the authors.

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## References

Papers of particular interest, published recently, have been highlighted as:

### • Of importance

1. Colson M-H. Female orgasm: myths, facts and controversies. *Sexologies*. 2010;19:8–14. <https://doi.org/10.1016/j.sexol.2009.11.004>.
2. Wiederman MW. The gendered nature of sexual scripts. *Fam J*. 2005;13:496–502. <https://doi.org/10.1177/10664807052787>.
3. Séguin LJ, Blais M. The development and validation of the orgasm beliefs inventory. *Arch Sex Behav*. 2021;50:2543–61. <https://doi.org/10.1007/s10508-021-01911-2>.
4. Pfaus JG, Quintana GR, Mac Cionnaith C, Parada M. The whole versus the sum of some of the parts: toward resolving the apparent controversy of clitoral versus vaginal orgasms. *Socioaffect Neurosci Psychol*. 2016;6:32578. <https://doi.org/10.3402/snp.v6.32578>.
5. Klein V, Conley TD. The role of gendered entitlement in understanding inequality in the bedroom. *Soc Psychol Personal Sci*. 2021;13:1047–57. <https://doi.org/10.1177/19485506211053564>.
6. Bancroft J, Long JS, McCabe J. Sexual well-being: a comparison of U.S. Black and White women in heterosexual relationships. *Arch Sex Behav*. 2011;40:725–40. <https://doi.org/10.1007/s10508-010-9679-z>.
7. Goldey KL, Posh AR, Bell SN, van Anders SM. Defining pleasure: a focus group study of solitary and partnered sexual pleasure in queer and heterosexual women. *Arch Sex Behav*. 2016;45:2137–54. <https://doi.org/10.1007/s10508-016-0704-8>.
8. Kleinplatz PJ, Ménard AD, Paquet MP, Paradis N, Campbell M, Zuccarino D, Mehak L. The components of optimal sexuality: a portrait of “great sex.” *Can J Hum Sex*. 2009;18:1–3.
9. Mintz LB. *Becoming cliterate: why orgasm equality matters—and how to get it*. New York: HarperOne; 2017.
10. Gianotten WL, Alley JC, Diamond LM. The health benefits of sexual expression. *Int J Sex Health*. 2021;33(4):478–93. <https://doi.org/10.1080/19317611.2021.1966564>.
11. Coria-Avila GA, Herrera-Covarrubias D, Ismail N, Pfaus JG. The role of orgasm in the development and shaping of partner preferences. *Socioaffect Neurosci Psychol*. 2016;6:31815. <https://doi.org/10.3402/snp.v6.31815>.
12. Meston CM, Levin RJ, Sipski ML, Hull EM, Heiman JR. Women's orgasm. *Annu Rev Sex Res*. 2004;15:173–257. <https://doi.org/10.1080/10532528.2004.10559820>.
13. Abramson PR, Pinkerton SD. *With pleasure: thoughts on the nature of human sexuality*. Oxford University Press; 2002.
14. Fugl-Meyer KS, Öberg K, Lundberg PO, Lewin B, Fugl-Meyer A. On orgasm, sexual techniques, and erotic perceptions in 18-to 74-year-old Swedish women. *J Sex Med*. 2006;3:56–68. <https://doi.org/10.1111/j.1743-6109.2005.00170.x>.
15. Laan E, Rellini AH. Can we treat anorgasmia in women? The challenge to experiencing pleasure. *Sex Relation Ther*. 2011;26:329–41. <https://doi.org/10.1080/14681994.2011.649691>.
16. Opperman E, Braun V, Clarke V, Rogers C. “It feels so good it almost hurts”: young adults' experiences of orgasm and sexual pleasure. *J Sex Res*. 2014;51:503–15. <https://doi.org/10.1080/00224499.2012.753982>.
17. Fahs B, Plante R. On ‘good sex’ and other dangerous ideas: women narrate their joyous and happy sexual encounters. *J Gend Stud*. 2016;26(1):33–44. <https://doi.org/10.1080/09589236.2016.1246999>.
18. Hargons CN, Mosley DV, Meiller C, Stuck J, Kirkpatrick B, Adams C, et al. “it Feels so good”: pleasure in last sexual encounter narratives of Black University Students. *J Black Psychol*. 2018;44:103–27. <https://doi.org/10.1177/0095798417749400>.

19. Thorpe S, Malone N, Hargons CN, Dogan JN, Jester JK. The peak of pleasure: US Southern Black women's definitions of and feelings toward sexual pleasure. *Sex Cult.* 2022;26:1115–31. <https://doi.org/10.1007/s12119-021-09934-6>.
20. Armstrong EA, England P, Fogarty AC. Accounting for women's orgasm and sexual enjoyment in college hookups and relationships. *Am Sociol Rev.* 2012;77:435–62. <https://doi.org/10.1177/0003122412445802>.
21. Klein V, Laan E, Brunner F, Briken P. Sexual pleasure matters (especially for women) — data from the German sexuality and Health Survey (gesid). *Sex Res Soc Policy.* 2022;19(4):1879–87. <https://doi.org/10.1007/s13178-022-00694-y>.
22. Dienberg MF, Oschatz T, Kosman E, Klein V. Does clitoral knowledge translate into orgasm? The interplay between clitoral knowledge, gendered sexual scripts, and orgasm experience. *J Sex Marital Ther.* 2022;1–3. <https://doi.org/10.1080/0092623X.2022.2147112>.
23. • Herbenick D, Fu TC, Arter J, Sanders SA, Dodge B. Women's experiences with genital touching, sexual pleasure, and orgasm: results from a US probability sample of women ages 18 to 94. *J Sex Marital Ther.* 2017;44:201–12. <https://doi.org/10.1080/0092623X.2017.1346530>. **Useful paper providing detailed information on genital touching preferences and factors that enhance orgasm quality in women.**
24. Haning RV, O'Keefe SL, Randall EJ, Kommor MJ, Baker E, Wilson R. Intimacy, orgasm likelihood, and conflict predict sexual satisfaction in heterosexual male and female respondents. *J Sex Marital Ther.* 2007;33:93–113. <https://doi.org/10.1080/00926230601098449>.
25. Shirazi T, Renfro KJ, Lloyd E, Wallen K. Women's experience of orgasm during intercourse: question semantics affect women's reports and men's estimates of orgasm occurrence. *Arch Sex Behav.* 2018;47:605–13. <https://doi.org/10.1007/s10508-017-1102-6>.
26. McClelland SI. Intimate justice: a critical analysis of sexual satisfaction. *Soc Personal Psychol Compass.* 2010;4:663–80. <https://doi.org/10.1111/j.1751-9004.2010.00293.x>.
27. Sprecher S, Cate RM. Sexual satisfaction and sexual expression as predictors of relationship satisfaction and stability. In: Harvey JH, Wenzel A, Sprecher S, editors. *The handbook of sexuality in close relationships.* Psychology Press; 2004.
28. McClelland SI. What do you mean when you say that you are sexually satisfied? A mixed methods study. *Fem Psychol.* 2014;24:74–96. <https://doi.org/10.1177/0959353513508392>.
29. • Leavitt CE, Leonhardt ND, Busby DM, Clarke RW. When is enough enough? Orgasm's curvilinear association with relational and sexual satisfaction. *J Sex Med.* 2021;18:167–78. <https://doi.org/10.1016/j.jsxm.2020.10.002>. **This paper goes beyond previous research by examining not only the strength of the association between orgasm and sexual satisfaction in both men and women, but also the slope of this relationship. The findings suggest that while the relationship is linear for men, it is curved for women.**
30. Frederick DA, Lever J, Gillespie BJ, Garcia JR. What keeps passion alive? Sexual satisfaction is associated with sexual communication, mood setting, sexual variety, oral sex, orgasm, and sex frequency in a national US study. *J Sex Res.* 2017;54:186–201. <https://doi.org/10.1080/00224499.2015.1137854>.
31. Leonhardt ND, Willoughby BJ, Busby DM, Yorgason JB, Holmes EK. The significance of the female orgasm: a nationally representative, dyadic study of newlyweds' orgasm experience. *J Sex Med.* 2018;15:1140–8. <https://doi.org/10.1016/j.jsxm.2018.05.018>.
32. • Leonhardt ND, Busby DM, Disalvo K, Hanna-Walker VR, Kim JJ, Willoughby BJ, Impett EA. Orgasm consistency in mixed-gender couples: actor, partner, and discrepancy effects from dyadic response surface analysis. *J Sex Res.* 2023;1–2. <https://doi.org/10.1080/00224499.2023.2164883>. **With a new methodology this paper explores whether a partner's congruence of orgasm frequency predicts their sexual satisfaction. While congruence did not show an effect, higher orgasm frequency in general predicted satisfaction for both women and men.**
33. Pascoal PM, Byers ES, Alvarez MJ, Santos-Iglesias P, Nobre PJ, Pereira CR, Laan E. A dyadic approach to understanding the link between sexual functioning and sexual satisfaction in heterosexual couples. *J Sex Res.* 2017;55:1155–66. <https://doi.org/10.1080/00224499.2017.1373267>.
34. Frederick DA, John HK, Garcia JR, Lloyd EA. Differences in orgasm frequency among gay, lesbian, bisexual, and heterosexual men and women in a US national sample. *Arch Sex Behav.* 2018;47:273–88. <https://doi.org/10.1007/s10508-017-0939-z>.
35. Parish WL, Luo Y, Stolzenberg R, Laumann EO, Farrer G, Pan S. Sexual practices and sexual satisfaction: a population based study of Chinese urban adults. *Arch Sex Behav.* 2007;36:5–20. <https://doi.org/10.1007/s10508-006-9082-y>.
36. Waterman CK, Chiauzzi EJ. The role of orgasm in male and female sexual enjoyment. *J Sex Res.* 1982;18:146–59. <https://doi.org/10.1080/00224498209551145>.
37. Wetzel GM, Cultice RA, Sanchez DT. Orgasm frequency predicts desire and expectation for orgasm: assessing the orgasm gap within mixed-sex couples. *Sex Roles.* 2022;86:456–70. <https://doi.org/10.1007/s11199-022-01280-7>.
38. Berridge KC, Kringelbach ML. Neuroscience of affect: brain mechanisms of pleasure and displeasure. *Curr Opin Neurobiol.* 2013;23(3):294–303. <https://doi.org/10.1016/j.conb.2013.01.017>.
39. Conley TD, Klein V. Women get worse sex: a confound in the explanation of gender differences in sexuality. *Perspect Psychol Sci.* 2022;17(4):960–78. <https://doi.org/10.1177/17456916211041598>.
40. Rubin JD, Conley TD, Klein V, Liu J, Lehane CM, Dammeyer J. A cross-national examination of sexual desire: The roles of 'gendered cultural scripts' and 'sexual pleasure' in predicting heterosexual women's desire for sex. *Personal Individ Differ.* 2019;151:109502. <https://doi.org/10.1016/j.paid.2019.07.012>.
41. Prause N, Kuang L, Lee P, Miller G. Clitorally stimulated orgasms are associated with better control of sexual desire, and not associated with depression or anxiety, compared with vaginally stimulated orgasms. *J Sex Med.* 2016;13:1676–85. <https://doi.org/10.1016/j.jsxm.2016.08.014>.
42. Arcos-Romero AI, Sierra JC. Factors associated with subjective orgasm experience in heterosexual relationships. *J Sex Marital Ther.* 2020;46(4):314–29. <https://doi.org/10.1080/0092623X.2019.1711273>.
43. Peragine DE, Skorska MN, Maxwell JA, Impett EA, VanderLaan DP. A learning experience? enjoyment at sexual debut and the gender gap in sexual desire among emerging adults. *J Sex Res.* 2022;59(9):1092–109. <https://doi.org/10.1080/00224499.2022.2027855>.
44. Zimmer-Gembeck MJ, See L, O'Sullivan L. Young women's satisfaction with sex and romance, and emotional reactions to sex: associations with sexual entitlement, efficacy, and situational factors. *Emerg Adulthood.* 2014;3:113–22. <https://doi.org/10.1177/2167696814548060>.
45. Kennair LE, Wyckoff JP, Asao K, Buss DM, Bendixen M. Why do women regret casual sex more than men do? *Personal Individ Differ.* 2018;127:61–7. <https://doi.org/10.1016/j.paid.2018.01.044>.
46. Woerner J, Abbey A. Positive feelings after casual sex: the role of gender and traditional gender-role beliefs. *J Sex Res.* 2017;54:717–27. <https://doi.org/10.1080/00224499.2016.1208801>.
47. • Piemonte JL, Conley TD, Gusakova S. Orgasm, gender, and responses to heterosexual casual sex. *Pers Individ Dif.* 2019;151:109487. <https://doi.org/10.1016/j.paid.2019.06.030>. **Important study shedding light on the role of orgasm in positive casual sex experiences of women.**
48. Conley TD, Moors AC, Matsick JL, Ziegler A, Valentine BA. Women, men, and the bedroom. *Curr Dir Psychol Sci.* 2011;20:296–300. <https://doi.org/10.1177/0963721411418467>.

49. Conley TD, Rubin JD, Matsick JL, Ziegler A, Moors AC. Proposer gender, pleasure, and danger in casual sex offers among bisexual women and men. *J Exp Soc Psychol.* 2014;55:80–8. <https://doi.org/10.1016/j.jesp.2014.06.002>.
50. Klapilová K, Brody S, Krejčová L, Husárová B, Binter J. Sexual satisfaction, sexual compatibility, and relationship adjustment in couples: the role of sexual behaviors, orgasm, and men's discernment of women's intercourse orgasm. *J Sex Med.* 2015;12:667–75. <https://doi.org/10.1111/jsm.12766>.
51. Wongsomboon V, Webster GD, Burleson MH. It's the "why": links between (non) autonomous sexual motives, sexual assertiveness, and women's orgasm in casual sex. *Arch Sex Behav.* 2022;51:621–32. <https://doi.org/10.1007/s10508-021-02103-8>.
52. Sanchez DT, Kiefer AK, Ybarra O. Sexual submissiveness in women: costs for sexual autonomy and arousal. *Pers Soc Psychol Bull.* 2006;32:512–24. <https://doi.org/10.1177/0146167205282154>.
53. Bond JC, Morrison DM, Hawes SE. Sexual self-efficacy and entitlement to pleasure: The association of the female sexual subjectivity inventory with sexual risk taking and experience of orgasm. *Arch Sex Behav.* 2020;49:1029–38. <https://doi.org/10.1007/s10508-019-01563-3>.
54. Kinsey AC. *Sexual behavior in the human female: by the staff of the Institute for Sex Research, Indiana University: Alfred C. Kinsey (O.F.L.A.). Philadelphia and London: W.B. Saunders; 1953.*
55. Hite S. *The hite report: a nationwide study of female sexuality.* Macmillan Publishing; 1976.
56. Wade LD, Kremer EC, Brown J. The incidental orgasm: the presence of clitoral knowledge and the absence of orgasm for women. *Women Health.* 2005;42(1):117–38. [https://doi.org/10.1300/J013v42n01\\_07](https://doi.org/10.1300/J013v42n01_07).
57. Matsick JL, Kruk M, Conley TD, Moors AC, Ziegler A. Gender similarities and differences in casual sex acceptance among lesbian women and Gay Men. *Arch Sex Behav.* 2021;50(3):1151–66. <https://doi.org/10.1007/s10508-020-01864-y>.
58. Blair KL, Cappell J, Pukall CF. Not all orgasms were created equal: differences in frequency and satisfaction of orgasm experiences by sexual activity in same-sex versus mixed-sex relationships. *J Sex Res.* 2018;55:719–33. <https://doi.org/10.1080/00224499.2017.1303437>.
59. Lentz AM, Zaikman Y. The big "O": sociocultural influences on orgasm frequency and sexual satisfaction in women. *Sex Cult.* 2021;25:1096–123. <https://doi.org/10.1007/s12119-020-09811-8>.
60. Laumann EO. *The social organization of sexuality: sexual practices in the United States.* Chicago: University of Chicago Press; 1994.
61. Meston CM, Buss DM. Why humans have sex. *Arch Sex Behav.* 2007;36(4):477–507. <https://doi.org/10.1007/s10508-007-9175-2>.
62. Muise A, Impett EA, Desmarais S. Getting it on versus getting it over with. *Pers Soc Psychol Bull.* 2013;39:1320–32. <https://doi.org/10.1177/014616721349096>.
63. Bell SN, McClelland SI. When, if, and how: young women contend with orgasmic absence. *J Sex Res.* 2018;55:679–91. <https://doi.org/10.1080/00224499.2017.1384443>.
64. Matsick JL, Conley TD, Moors AC (2016) The science of female orgasms: pleasing female partners in casual and long-term relationships. In: Aumer, K. (eds) *The Psychology of Love and Hate in Intimate Relationships.* Springer, Cham. [https://doi.org/10.1007/978-3-319-39277-6\\_4](https://doi.org/10.1007/978-3-319-39277-6_4).
65. Gusakova S, Conley TD, Piemonte JL, Matsick JL. The role of women's orgasm goal pursuit in women's orgasm occurrence. *Pers Individ Dif.* 2020;155:109628. <https://doi.org/10.1016/j.paid.2019.109628>.
66. Eagly A, Nater C, Miller DI, Kaufmann M, Sczesny S. Gender stereotypes have changed: a cross-temporal meta-analysis of US public opinion polls from 1946 to 2018. *Am Psychol.* 2020;75:301–15. <https://doi.org/10.1037/amp0000494>.
67. Joshi SP, Peter J, Valkenburg PM. Scripts of sexual desire and danger in US and Dutch teen girl magazines: a cross-national content analysis. *Sex Roles.* 2011;64:463–74. <https://doi.org/10.1007/s11199-011-9941-4>.
68. Katz-Wise SL, Hyde JS. Sexuality and gender: the interplay. In: D. L. Tolman, L. M. Diamond, J. A. Bauermeister, W. H. George, J. G. Pfaus, L. M. Ward, editors. *APA handbook of sexuality and psychology.* Washington, DC: American Psychological Association; 2014. <https://doi.org/10.1037/14193-002>.
69. Kiefer AK, Sanchez DT. Scripting sexual passivity: a gender role perspective. *Pers Relat.* 2007;14:269–90. <https://doi.org/10.1111/j.1475-6811.2007.00154.x>.
70. Kiefer AK, Sanchez DT, Kalinka CJ, Ybarra O. How women's non-conscious association of sex with submission relates to their subjective sexual arousability and ability to reach orgasm. *Sex Roles.* 2006;55:83–94. <https://doi.org/10.1007/s11199-006-9060-9>.
71. Hurlbert DF. The role of assertiveness in female sexuality: a comparative study between sexually assertive and sexually nonassertive women. *J Sex Marital Ther.* 1991;17:183–90. <https://doi.org/10.1080/00926239108404342>.
72. Conley TD, Ziegler A, Moors AC. Backlash from the bedroom: stigma mediates gender differences in acceptance of casual sex offers. *Psychol Women Q.* 2013;37(3):392–407. <https://doi.org/10.1177/0361684312467169>.
73. Fetterolf JC, Sanchez DT. The costs and benefits of perceived sexual agency for men and women. *Arch Sex Behav.* 2014;44(4):961–70. <https://doi.org/10.1007/s10508-014-0408-x>.
74. Klein V, Imhoff R, Reininger KM, Briken P. Perceptions of sexual script deviation in women and men. *Arch Sex Behav.* 2018;48(2):631–44. <https://doi.org/10.1007/s10508-018-1280-x>.
75. Sanchez DT, Fetterolf JC, Rudman LA. Eroticizing inequality in the United States: the consequences and determinants of traditional gender role adherence in intimate relationships. *J Sex Res.* 2012;49(2–3):168–83. <https://doi.org/10.1080/00224499.2011.653699>.
76. Chadwick SB, Francisco M, van Anders SM. When orgasms do not equal pleasure: accounts of "bad" orgasm experiences during consensual sexual encounters. *Arch Sex Behav.* 2019;48:2435–59. <https://doi.org/10.1007/s10508-019-01527-7>.
77. Bareket O, Kahalon R, Shnabel N, Glick P. The Madonna-whore dichotomy: men who perceive women's nurturance and sexuality as mutually exclusive endorse patriarchy and show Lower relationship satisfaction. *Sex Roles.* 2018;79:519–32. <https://doi.org/10.1007/s11199-018-0895-7>.
78. Döring N, Mohseni MR. Der gender orgasm gap. Ein kritischer Forschungsüberblick zu Geschlechterdifferenzen in der Orgasmus-Häufigkeit Beim Heterosex. *Zeitschrift für Sexualforschung.* 2022;35:73–87. <https://doi.org/10.1055/a-1832-4771>.
79. Guitelman J, Mahar EA, Mintz LB, Dodd HE. Effectiveness of a bibliotherapy intervention for young adult women's sexual functioning. *Sex Relatsh Ther.* 2019;36:198–218. <https://doi.org/10.1080/14681994.2019.1660761>.
80. Warshowsky H, Mosley DV, Mahar EA, Mintz L. Effectiveness of undergraduate human sexuality courses in enhancing women's sexual functioning. *Sex Education.* 2019;20:1–16. <https://doi.org/10.1080/14681811.2019.1598858>.
81. Koepsel ER. The power in pleasure: practical implementation of pleasure in sex education classrooms. *Am J Sex Educ.* 2016;11:205–65. <https://doi.org/10.1080/15546128.2016.1209451>.
82. Heredia D, Rider GN. Intersectionality in sex therapy: opportunities for promoting sexual wellness among queer people of color. *Curr Sex Health Rep.* 2020;12:195–201. <https://doi.org/10.1007/s11930-020-00270-8>.
83. Alarcão V, Stefanovska-Petkovska M, Candeias P, Pascoal PM. Exploring intersectional variations in sexual pleasure, sexual

- autonomy, and important correlates. *Soc Sci.* 2022;11:496. <https://doi.org/10.3390/socsci11110496>.
84. Bowleg L, del Río-González AM, Holt SL, Pérez C, Massie JS, Mandell JE, et al. Intersectional epistemologies of ignorance: how behavioral and social science research shapes what we know, think we know, and don't know about U.S. black men's sexualities. *J Sex Res.* 2017;54:577–603. <https://doi.org/10.1080/00224499.2017.1295300>.
85. Alexander AA. Sex for all: Sex positivity and intersectionality in clinical and counseling psychology. *J Black Sex Relationsh.* 2019;6:49–72. <https://doi.org/10.1353/bsr.2019.0015>.

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