



# Closing the Orgasm Gap: The Case for Psychology Instead of Biology

Corey E. Miller, Ph.D.

Associate Professor, Department of Psychology, Wright State University, 3640 Colonel Glenn Hwy, Dayton, OH 45435-0001, United States.

## Article Details

Article Type: Commentary Article

Received date: 26<sup>th</sup> December, 2024

Accepted date: 30<sup>th</sup> December, 2024

Published date: 31<sup>st</sup> December, 2024

\***Corresponding Author:** Corey E. Miller, Ph.D., Associate Professor, Department of Psychology, Wright State University, 3640 Colonel Glenn Hwy, Dayton, OH 45435-0001, United States.

**Citation:** Miller, C. E., (2024). Closing the Orgasm Gap: The Case for Psychology Instead of Biology. *J Ment Health Soc Behav* 6(2):194. <https://doi.org/10.33790/jmhsb1100194>

**Copyright:** ©2024, This is an open-access article distributed under the terms of the [Creative Commons Attribution License 4.0](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## Abstract

### The Orgasm Gap

Women are less likely than men to achieve orgasm through Penile-Vaginal Intercourse (PVI), which has been termed the Orgasm Gap. Scientific research repeatedly demonstrates that the gap is large, in any way it is measured. The Gap is at least partially caused by biological issues, making it unlikely it will ever be closed completely. A review of the of the psychological literature reveals some methods proven to help close the gap, and increase the pleasure of women. Research should move beyond biology and focus on proven techniques that strengthen communication, knowledge, self-awareness, and the relationship.

**Keywords:** Orgasm Gap, Penile-Vaginal Intercourse (PVI), Coital Alignment Technique

### Defining the Orgasm Gap

A woman is typically less likely to orgasm during sex than her male partner. A sample of 52,588 adults were asked what percentage of the time they reached orgasm when they were sexually intimate during the past month, heterosexual men reported orgasming 95% of the time in contrast to only 65% of heterosexual women [2]. This is termed the orgasm gap. One cause of the orgasm gap is that although the typical woman needs about 15 minutes of stimulation to achieve orgasm during penile-vaginal-intercourse [3, 4], a typical man needs less than 6 minutes [5]. This fact suggests that men often reach orgasm before his female partner has, leading to the orgasm gap.

Research shows that less than 20% of women regularly reach orgasm though Penile-Vaginal Intercourse [6]. Herbenick, Arter, Sanders, and Dodge [6] obtained a sample representative sample of 1,055 individuals using probability estimates to achieve a representative sample of the non-institutionalized U. S. population. The study's primary focus was on women achieving orgasm during PVI, with or without stimulation in addition to penile insertion. The question was posed with seven response alternatives, or categories of percentage frequency. Eighteen and two tenths percent of the sample never achieved orgasm during PVI without clitoral stimulation, while nine and six tenths of women were never able to achieve orgasm with the additional of clitoral stimulation during PVI. On the other side of

the frequency continuum, 13.5% of women always achieve orgasm during PVI without the addition of clitoral stimulation, while 22.3% achieved orgasm during PVI with the addition of clitoral stimulation. The frequency of orgasm varied greatly, and approximated a bell shaped curve. The percentage of women that never achieved orgasm without clitoral stimulation was 18.2%, 21.8% achieved orgasm less than 25% of the time, 8.2% of women achieved orgasm 25 – 49% of the time, 10.5% achieved orgasm about 50% of the time, 12.3% achieved orgasm 51 – 75% of the time, 15.5% achieved orgasm more than 75% of the time, and 13.5% reported always achieving orgasm during PVI. Adding clitoral stimulation increased the likelihood of orgasm and reported pleasure for many of these women.

Herbenick et al. [6] provide the most accurate estimation of how large the gap is in the U.S. because they use a strategy to obtain a representative sample of the U.S. women, which would be authoritative in regards to percentage estimates. Other research has found similar results, which corroborates the findings of Herbenick et al [6]. The Hite Report [7] was one of the first studies to ask the question, and obtained a convenience sample of more than 2,000 North American women. Thirty percent of the women in Hite's research reported regularly reaching orgasm during PVI, while 12% of women rarely did, and 29% of women did sometimes. different studies varied in regards to the exact percentage of women that achieve orgasm through PVI. Some of the variability is likely due to the nationality of the women (North American, Norwegian, Swedish, U.S, Australian.) and how exactly the question was worded. Although there is some variability from study to study, the general trend that women do not achieve orgasm during PVI as frequently as men due is undeniable. Looking at the studies as a whole, the data approximates a bell shaped curve. A bell shaped curve might be split into three groups: more than one standard deviation below the mean, more than one standard deviation above the mean, and within plus or minus one standard deviation of the mean. The typical bell shaped curve is comprised of 16% of people more than one standard deviation below the mean, 16% of people more than one standard deviation above the mean, and 68% of people within one standard of the mean, plus or minus. If we look across these studies we can see that about 16% of women always achieve orgasm during PVI,

16% never achieve orgasm through PVI, and 64% of women achieve orgasm through PVI some of the times, ranging from almost never, to almost always. Some of those 64% of women in the middle of the bell shaped curve find orgasm is more consistently achieved with additional stimulation, such as directly to the clitoris. Many women report that blended orgasms, where more than one body part is stimulated (vagina, clitoris, breasts, anus), are more pleasurable [8, 9]. Many women add clitoral stimulation during PVI not because they cannot achieve orgasm without it, but because it enhances their orgasm. Although the general media often misstates the statistics reporting that only 20% of women ever achieve orgasm through PVI [10, 11], rather than the correct statistic that about 20% of women achieve orgasm all the time, there is no question that there is an orgasm gap. Although about half of women achieve orgasm through PVI alone half of the time, men achieve orgasm through PVI about 95% of the time [2].

How might we close that orgasm gap? The research literature provides guidance on how it may be accomplished. We could start with examining the female anatomy, in particular the clitoris. Researchers have recently learned that the clitoris extends into the body, and is more than just the tip (or glans, or button) that is visible. The clitoris is actually two wishbone shaped structures (legs or crura and vestibular bulbs) that meet and form a neck, that curves up, then back down towards the tip that is visible outside the body. The vestibular bulbs actually fill with blood, or become erect after arousal similar to the male erection. The male erection is formed by two tubes (the corpora cavernosa) similar to the vestibular bulbs of the clitoris. In fact, they are homologous structures and before eight weeks of development or so are androgynous gonads, and the tissue will grow into either the corpus cavernosa in the penis or the vestibular bulbs of the clitoris. The vestibular bulbs surround the opening of the vagina, and during arousal cause the vaginal opening to become wider. The urethra sits on top of the vagina, and is surrounded by a soft structure named the urethral sponge that also contains nerves. The dorsal nerve travels from the clitoral head or tip, along the neck of the clitoris, and down over the vestibular bulbs after branching into two. The clitoris contains an abnormally high number of nerve fibers, more than 10,000, which is similar in comparison to the entire hand and fingers [12]. Clearly it is one of the most sensitive structures in a human. We don't know the exact pathway of physical stimulation to orgasm, but we do know the orgasm occurs in the brain. Reaching orgasm without any physical sensation at all, entirely mental, has been documented as possible. Women vary in regards to how physical sensation triggers orgasm. Research shows that women that have a clitoral head less than once inch from their vaginal opening are more likely to reach orgasm during PVI. It may be because the clitoral hood is more likely to be stimulated during PVI, leading to orgasm. Although we don't know for sure, and it likely varies from woman to woman, it stands to reason that women are more likely to reach orgasm during PVI if clitoral stimulation is provided in addition to penile penetration [6].

#### **Techniques to Close the Orgasm Gap Focusing on Biology: The Coital Alignment Technique**

The Coital Alignment Technique (CAT) is a variation to traditional PVI, in which the clitoris is stimulated during penile insertion. The coital alignment technique traditionally entails the woman stationary, and the male changing his hip movement from in and out to more of an up and down motion instead of in-and-out, causing his pubic bone to grind or come in contact with the clitoris. Research proves that the Coital Alignment Technique does help facilitate orgasm in women [13-15]. Although the Coital Alignment Technique (CAT) has been proven effective for some women, it is not effective for all women. Kaplan [16] found that the Coital Alignment Technique (CAT) helped one of twenty-one sex therapists achieve orgasm for the first time during PVI, the other 20 reported no change. However, subsequent

research has shown that the success of the Coital Alignment Technique can be improved if the woman adds movement of her torso and hips, in particular back-and-forth swinging movements of the pelvis and trunk [17]. It is unclear if a particular motion is most effective, or if a general effect of the woman being more active such as using several positions during intercourse, or perhaps the woman-on-top position [3]. The estimate is that about 54% of women reach orgasm through PVI only, but if clitoral stimulation is added the percentage rises to 73% [18]. The literature does not elucidate what type of clitoral stimulation in particular is most effective. It may be that all women are unique and dynamic, and that she must explore her body to determine what type of stimulation is best for her Marchand [18]. Although it is clear that adding clitoral stimulation to PVI can increase the likelihood of a woman achieving orgasm, it does not fully close the gap. Other research applying psychological concepts rather than overcoming biology have shown more promise.

#### **Applying Psychological Techniques to close the Orgasm Gap**

Techniques applying psychological techniques have been proven to facilitate orgasm in the encounter. Knowledge of anatomy, relaxation techniques, and the sexual response cycle have been proven beneficial in both the theoretical and applied sense. Sensate Focus is a technique developed by Masters and Johnson in which partners exchange caresses to areas of the body other than the genitals, and only incorporating caresses of the genitals after the partners have reduced their anxiety levels and learned to attend to bodily sensations and increasing attention to them [19]. Masters and Johnson See for a full review of the effectiveness or (<https://health.cornell.edu/sites/health/files/pdf-library/sensate-focus.pdf>) for a more complete description. Sensate focus is effective because it both relaxes the body which facilitates the sexual response cycle as well as providing knowledge of the body's response to touch.

There is a link to orgasm and intercourse and masturbation [20, 21], women who masturbate on their own are more likely to achieve orgasm in intercourse. Directed masturbation is an effective particular cognitive behavioral and mindfulness technique that uses psychological principles to increase comfort with sexual feelings and stimulation, reduces anxiety, changes attitudes and beliefs, and may include fantasy or erotic materials and toys (See Marchand 2020 for a full discussion).

Minz and associates suggest lack of knowledge contributes to the orgasm gap, but show that knowledge can help close the gap [22]. Even education of only a few hours of duration can increase likelihood of orgasm [23, 24]. The programs primarily include information on anatomy, the sexual response cycle, what the orgasm is, and how to achieve it. The studies above show that the information is pretty powerful, and positive effects can be expected whether or not the format is printed, recorded lectures, or live lectures.

Relaxation techniques and exercises of a more general nature than Sensate Focus have also been proven beneficial in regards to sex as well. Anxiety impairs the sexual response cycle and interferes with achieving orgasm during PVI [3]. Relaxation and mindfulness techniques may facilitate orgasm [25, 26]. Research has proven that a woman's negative body image impairs her ability to achieve orgasm [27].

Psychotherapy has been proven effective to increase the frequency of orgasms, although results do vary, and it does not work for everyone (See Marchand 2020 for a full review). Even a book guiding a person through a course of at home therapy with only minimal contact via phone with the therapist, or Bibliotherapy [28]. Systematic Desensitization may lead to improvement if other therapeutic approaches fail, but it does not always succeed, and less involved treatments are recommended before Systematic Desensitization [29].

#### **The Application of Psychological Techniques**

Kontula and Miettinen [3] found that good sexual communication

contributed to female orgasms almost as much as favorable sexual techniques. Both men and women report the best sex they have ever had is with someone they love. It may be that women tend to have a non-linear sexual response in comparison to men, and a circular model explains the sexual response model better, which includes desire that may be a necessary precursor to the female sexual response cycle [30]. Defining love and relationship satisfaction is beyond the scope of this paper. These disparate studies that look at relationship quality in different ways reveal that the emotional connection can facilitate orgasm even if that emotional connection is manifested in different ways: relationship satisfaction and passion, kissing, expressing affection and love, communication (asking for what they want in bed, praising their partner for something they did in bed, spicy calls and e-mails, incorporating sexy talk).

It may seem confusing as it appears so many different activities and techniques can increase the likelihood a woman will reach orgasm. It may be the commonality is that is not particular techniques, but good sexual communication. It stands to reason that couples engaging in a larger variety of techniques communicate well about sex. Kontula and Miettinen [3] found that good sexual communication contributed to female orgasms almost as much as favorable sexual techniques. The Orgasm Gap is at least in part attributable to differences in biology, or that for most women the most sensitive part of her anatomy, her clitoris receives minimal or only indirect stimulation while the most sensitive part of the male anatomy, the frenulum is receiving direct stimulation. But a review of the psychological literature shows that techniques focusing on psychology rather than biology show more promise for closing the orgasm gap. The research suffers from an implicit assumption that path to closing the orgasm gap is focus on a woman's biology rather than her psychology.

## Conclusion

The academic literature leads to the conclusion that at least nine percent of women, and perhaps as high as 20% of women will never achieve orgasm through PVI. Although we may narrow the orgasm gap in regards to PVI, it is unlikely that that gap could be closed completely due to part of the gap is caused by biological and genetic issues. Some women have won the genetic lottery so to speak and are more likely to reach orgasm in PVI, while some women have lost the genetic lottery so to speak and will never achieve orgasm through PVI. Men are more likely to achieve orgasm through PVI as the frenulum is inside the vagina during PVI, while the tip off the clitoris is not being stimulated. There will likely always be an orgasm gap for PVI. Although it is unlikely that the orgasm gap in regards to PVI will ever be closed, it is possible to close the orgasm gap if other activities are included. The focus would be on an orgasm for her, before PVI, or She Comes First [31]. A review of the psychological literature shows that the most effective way to close the orgasm gap is to move beyond a focus on biology, and focus on the psychology of women, and techniques that strengthen communication, knowledge, self-awareness, and the relationship show more promise for closing the orgasm gap.

## References

- Kontula, O. (2009). Between sexual desire and reality: The evolution of sex in Finland. *Väestöliitto - The Family Federation of Finland*.
- Frederick, D. A., John, H. K. S., Garcia, J. R., Lloyd, E. A. (2018). Differences in orgasm frequency among gay, lesbian, bisexual, and heterosexual men and women in a U.S. national sample. *Archives of Sexual Behavior*, 47(1), 273-288.
- Kontula, O., & Miettinen, A. (2016). Determinants of Female Sexual Orgasms. *Socioaffective Neuroscience and Psychology*, 6, 31624. <https://www.tandfonline.com/doi/pdf/10.3402/snp.v6.31624>
- Rowland, D. L., Sullivan, S. L., Hevesi, K., & Hevesi, B. (2018). Orgasmic latency and Related parameters in Women During Partnered and Masturbatory Sex. *The Journal of Sexual Medicine*, 15(10), 1463-1472.
- Waldinger, M. D., Quinn, P., Dilliin, M., Mundayat, R., Schweitzer, D. H., & Boolell, M. (2005). Ejaculation Latency Time. *Journal of Sexual Medicine*, 2(4), 492-297.
- Herbenick, Fu, T. Arter, J., Sanders, S. A., & Dodge, B. (2018). Women's Experiences with Genital Touching, Sexual Pleasure, and Orgasm: Results from a U.S. Probability Sample of Women Ages 18 to 94. *Journal of Sex & Marital Therapy*, 44(2), 201-212.
- Hite, S. (1976). *The Hite Report*. New York, NY: Seven Stories Press.
- Arias-Castillo, L., Garcia, L., Garcia-Perdomo, H. A. (2022). The complexity of female orgasm and ejaculation. *Archives of Gynecology and Obstetrics*, Armstrong EA, England P, Fogarty ACK. Orgasm in college hookups and relationships. In: Risman BJ, editor. *Families as the really are*. New York: W.W. Norton; 2009. p. 362-77.
- Komisaruk, B. R., Beyer-Flores, C., & Whipple, B. (2007). *The Science of Orgasm*, John Hopkins University Press.
- James, S. D. (2009). Female Orgasm May be Tied to "Rule of Thumb": Sex Researchers Say 27 Percent of Women Don't climax during Vaginal Sex. <https://abcnews.go.com/Health/ReproductiveHealth/sex-study-female-orgasm-eludes-majority-women/story?id=8485289>
- Scarleteen (2023). I Can't Orgasm From Intercourse and It's Ruining My Relationship. [https://www.scarleteen.com/article/advice/i\\_cant\\_orgasm\\_from\\_intercourse\\_and\\_its\\_ruining\\_my\\_relationship](https://www.scarleteen.com/article/advice/i_cant_orgasm_from_intercourse_and_its_ruining_my_relationship)
- Peters, B. Uloko, M., Isabey, P. (October 2022). How many Nerve Fibers Innervate the Human Clitoris? A Histomorphometric Evaluation of the Dorsal Nerve of the Clitoris. Annual meeting of the Sexual Medicine Society of North America, Inc.
- Eichel, E. W., Eichel, J., & Kule, S. (1988). The technique of coital alignment and its relation to female orgasmic response and simultaneous orgasm. *The Journal of Sex and Marital Therapy*, 14 (2), 129-141.
- Hurlbert, D. F. & Apt, C. (2008). The coital alignment technique and directed masturbation: A comparative study on female orgasm.
- Krejcová, L., Kuba, R., Flegr, J., & Klávilová, K. (NOTE ACCENTS NEED TO BE ADDED FOR AUTHORS NAMES) (202). Kamasutra in Practice: The Use of Sexual Positions in the Czech Population and Their Association With Female Coital Orgasm Potential. *Sexual Medicine*, 8(4), 767-776.
- Kaplan, H. S. (1992). Does the CAT technique enhance female orgasm? *Journal of Sex and Marital Therapy*, 18, 285-291.
- Bischof-Campbell, A., Hilpert, P. Burri, A., & Bischof, K. (2019). Body Movement Is Associated With Orgasm During Vaginal Intercourse in Women. *The Journal of Sex Research*, 56 (3).
- Marchand, E. (2020). Psychological and Behavioral Treatment of Female Orgasmic Disorder.
- Masters, W. H. & Johnson, V. E.: (1965). The sexual response cycles of the human male and female: comparative anatomy and physiology; in Beach, Sex and behavior, pp. 512-534. Wiley, New York.
- Mintz, L., & Guitelman, J., (In press). Orgasm problems in women. In: Binik Y, Hall K, editors. *Principles and practice of sex therapy*. 6th ed. New York: Guilford Press.

21. Sierra, J. C., Santamaria, J., Cerville, O., Alvarez-Muelas, A. (2023). Masturbation in middle and late adulthood: Its relationship to orgasm.
22. Mintz, Laurie B. (2018). *Becoming cliterate : why orgasm equality matters -- and how to get it*. ISBN 978-0-06-266455-6. OCLC 1041864181.
23. Jankovich, R., & Miller, P. R. (1978). Response of women with primary orgasmic dysfunction to audiovisual education. *Journal of Sex and Marital Therapy*, 4, 16-19.
24. Kilmann, P. R., Mills, K. H., Bella, B. (1983). The effects of sex education on women with secondary orgasmic dysfunction. *Journal of Sex and Marital Therapy*, 9, 79-87.
25. Adam, F., Geonet, M., Day, J., & de Sutter, P. (2014). Mindfulness Skills are Associated with Female Orgasm? *Sexual and Relationship Therapy*, 30(2), 2015.
26. Brotto, L. A., Basson, R., Smith, K. B., Driscoll, M., Sadownik, L., (2015). Mindfulness-based group therapy for women with provoked vestibulodynia. *Mindfulness*. 6:417–32. <https://doi.org/10.1007/s12671-013-0273-z>. 59. Bell SN, McClelland SI.
27. Herbenick, D., Schick, V., Reece, M., Sanders, S., Dodge, B., Fortenberry, J. D., (2011). The female genital self-image scale (FGSIS): results from a nationally representative probability sample of women in the United States. *J Sex Med*. 8:158–66. <https://doi.org/10.1111/j.1743-6109.2010.02071.x>. 58.
28. Dodge, L.J.T., Glasgow, R.E. & O'Neill, H. K. (1982). Bibliotherapy in the treatment of female orgasmic dysfunction. *Journal of Consulting and Clinical Psychology*, 50, 442-453.
29. Laan, E., Rellini, A., & Barnes, T. (2013). Standard operating procedures for female orgasmic disorder: Consensus of the International Society for Sexual Medicine. *Journal of Sexual Medicine*, 10, 74-82.
30. Basson, R. (2015). Chapter 2: Human Sexual Response. *In Handbook of Clinical Neurology*, 130, 11-18.
31. Kerner, I. (2010). *She Comes First: The Thinking Man's Guide to Pleasuring a Woman*. William Morrow.