Oral Hormonal Contraception and Female Sexual Dysfunction?

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Background

- Combined (estrogen and progesterone) oral contraceptives (COCs) are the most commonly used short acting reversible by US women
- COCs increase personal autonomy, provide menstrual regulation, are generally affordable
- COCs have proven safety and efficacy
- The prevalence of FSD is estimated at 27% to 70% worldwide
- There is mixed-evidence regarding the the impact of oral HC on sexual function and dysfunction
- Research exploring the relationship between COCs and female sexual function is limited.
- The exact physiology of how hormonal contraceptives may affect the sexual function of women is not entirely clear but may relates to increases in circulating Sex Hormone Binding Globulin and decreases in circulating Testosterone
- While evidence has shown that oral HC may is correlated with sexual dysfunction, particularly low desire or libido, there are currently no recommendations to screen for sexual function before and after initiation of oral HC.

Aim: Evaluate the literature on oral HC and female sexual dysfunction

Methods

Research Question:

Are women who use COCsl at increased risk of sexual dysfunction (decreased libido) compared with women who do not use COCs?

Literature Search:

PubMed

("contraception"[MeSH Terms] OR "contraception"[All Fields]) AND ("libido"[MeSH Terms] OR "libido"[All Fields])

ScienceDirect

“"Contraception AND sexual libido”

Dimensions of Female Sexual Function Index (FSFI):

Desire Arousal Satisfaction

Orgasm Lubrication Pain

Results

Author/Year	Subjects	Study Design	Outcome Variables	Results
Čiaplinskienė et al., 2016	80 women	Prospective randomized study	FSFI	Women taking combined EE/DRSP COCs may have a worsening of sexual function
Lee, J. J. et al., 2017	unknown	Comprehensive review	FSFI	OCs can cause FSD in reproductive women
Lee, J.M. et al., 2017	1 couple	Case-Study	FSFI	Women who use OC pills have decreased sexual desire and libido.
Mark, K.P. et al., 2016	552 women	Case-control study	Solitary and dyadic sexual desire as measured by the Sexual Desire Inventory, contraceptive type	Higher solitary sexual desire in women on non-hormonal contraception Higher dyadic sexual desire in women on hormonal contraceptives
Pastor, Z. et al., 2013	13,673 women 8,422 COC users	Systematic review of 36 studies	Multi-variable studies	No significant difference in sexual desire in COCs with 20–35 μg ethinylestradiol Libido decreased only with pills containing 15 μg ethinylestradiol.
Sanders, S.A. et al., 2001	79 women	Randomized control trial	Pre-OC use attitudes, self-reported side effects and PMS, sexual interest, enjoyment, and frequency of sexual activity	Direct adverse hormonal effects of OCs on sexuality in women
Smith, N.S. et al., 2014	1,101 women	Case control study	(1) sexual function (2) sexual behavior	Women using a hormonal contraceptive method experienced less frequent sexual activity, arousal, pleasure, and orgasm and less lubrication
Zeth[illegible]	[illegible]	[illegible]	[illegible]SF, sexual activity log, personal distress scale	Sexual function was similar in women in the oral [illegible]

Figure #2

EE= Ethinyl estradiol
DRSP= Drospirenone
FSFI=Female Sexual Function Index
PFSF=Profile of Female Sexual Function
COC=Combined oral contraceptive
OC= oral contraception
PMS= perimenstrual symptoms

Conclusions

In 6 out of 8 of the studies reviewed:

- Women in the COC group were more likely to report lower sexual functioning than the women in the control group.
- Women taking COC's reported feeling less sexually aroused, less sexual pleasure, less frequent orgasms, more frequent issues with vaginal dryness, and overall less partnered sexual activity.
- The relationship between COCs and decreased sexual function remained consistent even when controlling for demographic variables (smoking, age, race, etc.)

Implications

Further research is needed on the association between female sexual dysfunction and use of hormonal contraception

Given the evidence to date, clinicians can consider screening for FSD pre -and post initiation of COCs

References

1. Čiaplinskienė, L., Birutė, Z., Rasa, V., Rimantas, Ž., Žana, B., Virginija, V., Johannes, B., 2016. The Effect of a drospirenone-containing combined oral contraceptive on female sexual function: A prospective randomized study. *European Journal of* Contraception *& Reproductive Health Care* 21 (5): 395–400. doi:10.1080/13625187.2016.1217324.
2. Lee, J. J., Tan, T. C., & Ang, S. B. (2017). Female sexual dysfunction with combined oral contraceptive use. *Singapore medical journal*, *58*(6), 285-288.
3. Lee, J. M., Low, L. L., & Ang, S. B. (2017). Oral Contraception and Female Sexual Dysfunction in Reproductive Women. *Sexual Medicine Reviews, 5*(1), 31-44. doi:10.1016/j.sxmr.2016.06.001
4. Mark, K. P., Leistner, C. E., & Garcia, J. R. (2016). Impact of contraceptive type on sexual desire of women and of men partnered to contraceptive users. *Journal of Sexual Medicine*, 13, 1359–1368. doi:10.1016/j.jsxm.2016.06.011
5. Pastor, Z., Holla, K., & Chmel, R. (2013). The influence of combined oral contraceptives on female sexual desire: A systematic review. *European Journal of Contraception & Reproductive Health Care*, *18*(1), 27–43. https://doi-org.ezproxy.cul.columbia.edu/10.3109/13625187.2012.728643
6. Sanders SA, Graham CA, Bass JL, et al. A prospective study of the effects of oral contraceptives on sexuality and well-being and their relationship to discontinuation. *Contraception*. 2001;64:51–58.
7. Smith, N. S., Jozkowski, K. N., & Sanders, S. A. (2014). Hormonal Contraception and Female Pain, Orgasm and Sexual Pleasure. *The Journal of Sexual Medicine, 11*(2), 462-470. https://doi.org/10.1111/jsm.12409
8. Zethraeus, N., Dreber, A., Ranehill, E., Blomberg, L., Labrie, F., Schoultz, B. V., . Hirschberg, A. L. (2016). Combined Oral Contraceptives and Sexual Function in Women—a Double-Blind, Randomized, Placebo-Controlled Trial. *The Journal of Clinical Endocrinology & Metabolism, 101*(11), 4046-4053. doi:10.1210/jc.2016-2032