

25707 Analyzing Determinants of Sexual Function in Endometriosis: A Pilot Study



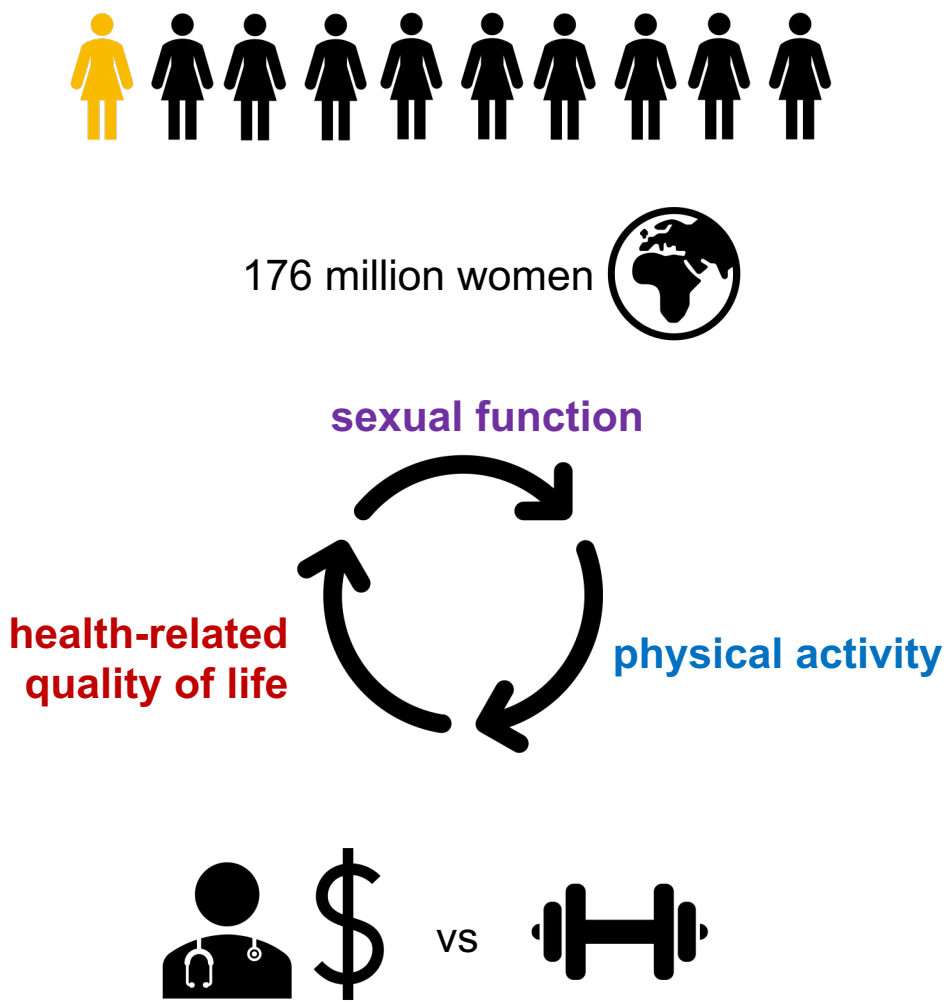
Machirán-Matallín, Mar¹; Arnal-Gómez, Anna²; Martínez-Alexandre, Celia¹; Hortelano-Molina, Adriana¹; Fuentes-Aparicio, Laura²

¹ Faculty of Physiotherapy, University of Valencia

² Physiotherapy Multispecialty Research Group PT in Motion, Department of Physiotherapy, Faculty of Physiotherapy, University of Valencia

Hypothesis / aims of study

Endometriosis is a chronic recurrent disease characterized by the growth and implantation of endometrial tissue outside the uterine cavity.



However, the literature is preliminary and sparse, and more research is needed in this field. Therefore, it is necessary to analyze the functional and psychological characteristics at the sexual sphere of women with endometriosis, compared to women without endometriosis, in order to identify potential targets for rehabilitation interventions.

The *main aim* of this observational study was **to investigate whether women with endometriosis present worse pelvic floor muscle (PFM) function compared to women without endometriosis, and also whether a higher level of catastrophism is a determining factor in sexual function and physical activity.**

Study design, materials and methods

Cross-sectional study



Women aged 22-48 years old participated. Women with endometriosis (n=17) were compared to age-matched women without endometriosis (n=13). Both groups attended a one-single assessment session.

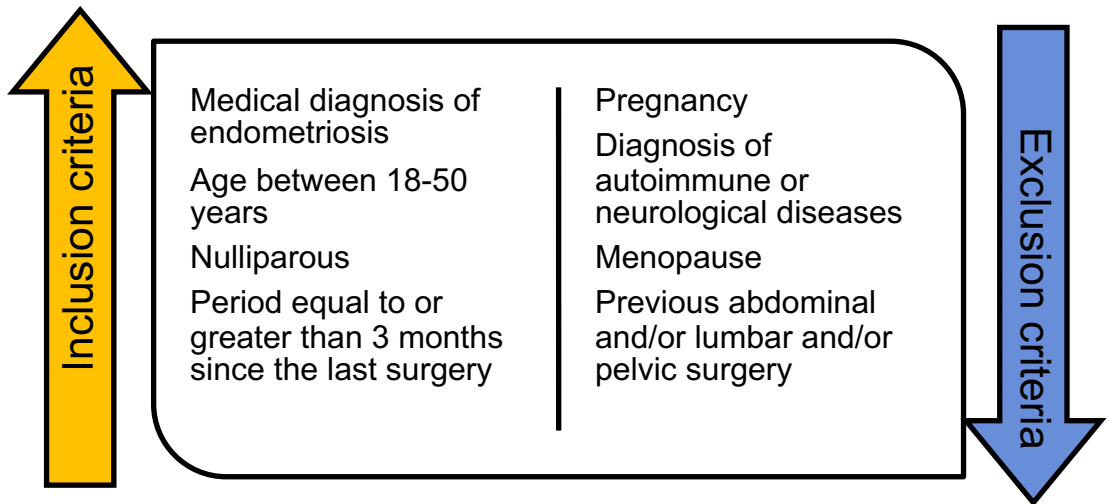
Table 1. Socio-demographic and clinical data

Outcomes Mean (SD) /n(%)	CG (n=13)	EG (n=17)
Age (years)	30	33
Education level	----	----
Basic education	3 (23.07)	2(11,76)
Higher education	10 (76.92)	5 (29,41)
Bachelor's degree		10(58,82)
Surgical interventions	----	9(52.94)
Type of endometriosis	----	----
Ovarian cysts		4 (23,52)
Adenomyosis		5(29,41)
Grade III		1(5.88)
Deep		5 (29.41)
Exercise intensity		
Non-exercise	4(30,76)	9(69,23)
Lower intensity	----	4(23,52)
Moderate intensity	3(17,64)	4(23,52)
High intensity	6(35,29)	----

Physical activity was catalogued by a compendium based on the type of physical activity by Norton et al. 2010.



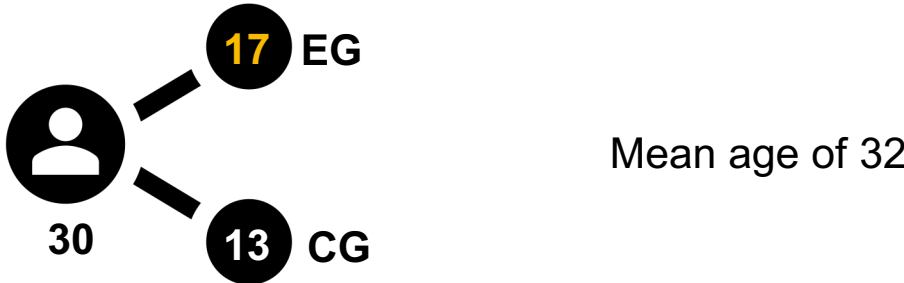
Female Sexual Function Index (FSFI-6)
Pain Catastrophizing Scale (PCS)



For the control group, the inclusion criteria were: nulliparous, not have incapacitating menstrual pain, fibroids, infertility, or uterine malformations.

Sample size was calculated with the G*Power 3.1.9.7 program. An “a priori” analysis was conducted and a power of 80%, an effect size of 0.75 and a statistical power of 0.80 and with an $\alpha=0.05$ were established. This resulted in a minimum sample size of twenty-three participants per group.

Results and interpretation



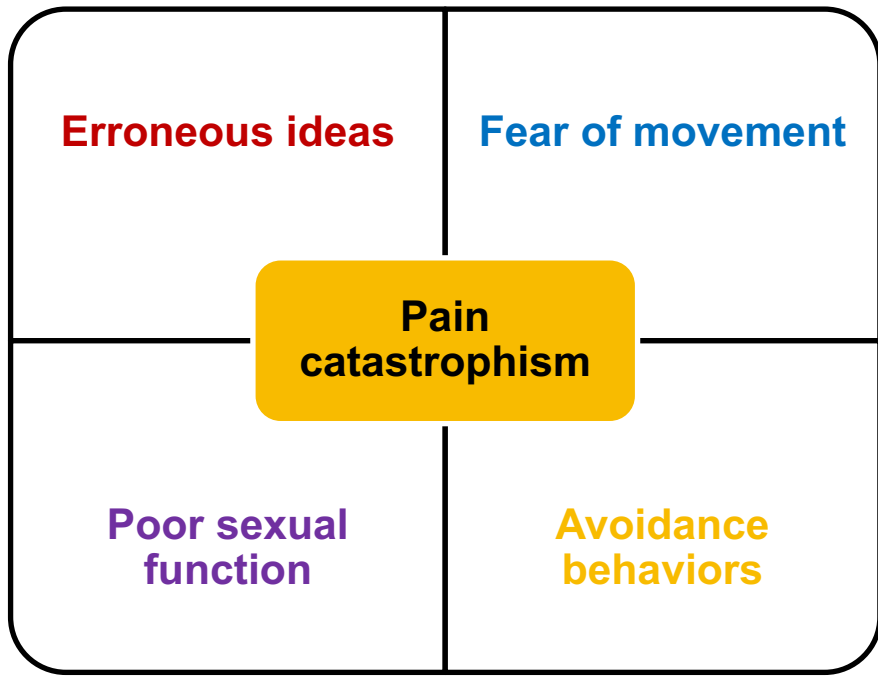
No significant differences were observed in PFM tone and contraction values ($p>0.05$) between the EG and the CG. The FSFI-6 score in the EG was 18.18 ± 6.3 points, compared to 24.38 ± 3.45 in the CG, with significant differences ($p<0.05$). Exercise intensity showed significant differences between-groups, with higher intensity levels in the CG ($p<0.05$). Finally, between-groups significant differences were obtained in the PCS total scores ($p<0.05$) with higher values in women with endometriosis (22.65 points compared to 5.5 in the control group) (Table 2).

Table 2. PFM tone and contraction values, FSFI-6 and PCS scores of women with endometriosis compared with control group

Outcomes Mean (SD)	CG (n=13)	EG (n=17)	p [95% CI] ^d
PFM (g)			
Tone	239.86 (28.41)	247.14 (26.49)	.991 [-13,83 to 28.39]1.07
MVC	383.67 (59.90)	367.20 (52.56)	.902 [-59.31 to 26.40]0.44
FSFI-6			
	24.38 (3.45)	18.18 (6.39)	.061 [-10.23 to -2.18]0.37
PCS			
	5.5 (7.74)	22.65 (14.06)	.003* [7.94 to 26.35]2.26

Abbreviations: PFM= pelvic floor muscles, MVC= maximum voluntary contraction, FSFI-6= Female Sexual Function Index-6, PCS= Pain Catastrophizing Scale

* $p<0.05$



Pain catastrophizing includes cognitive, emotional, and behavioral processes (fear-avoidance behaviors, altered mood and motivation) that amplify perceived painful sensations and predispose to the perpetuation of pain. Women who catastrophize have negative thoughts about their pain, and constantly focus their attention on it, feeling helpless in relation to it.

Conclusions

Endometriosis causes pain and disability in many women who suffer from it. This, associated with the lack of information and the poor results of some of the current treatments, can generate greater catastrophism in these women, with erroneous beliefs about their pain.

This catastrophizing leads women to less participation in activities of daily living, such as sexual function or physical activity. However, the results of our study indicate that there is no significant difference in the tone and activity of the PFM.

Based on these results, and the current existing evidence, we consider that it is necessary to improve pain education in these women, in order to reduce catastrophizing and improve physical condition and sexual function.

References

