

INFLUENCE OF CLINICAL PILATES ON PELVIC FLOOR FUNCTIONALITY AND PSYCHOLOGICAL WELL-BEING OF WOMEN WITH URINARY INCONTINENCE

Hypothesis / aims of study

Urinary Incontinence (UI) is considered a public health problem. The evidence is still scarce in Clinical Pilates in women with this condition. This study analyses the influence of the application of an exercise program according to the Clinical Pilates method in the self-efficacy of the pelvic floor and the psychological well-being of women with UI.

Study design, materials and methods

Quasi-experimental study was conducted in a consecutive sample of 60 women with stress or mixed UI and grade ≥ 3 on the Modified Oxford Scale. The participants were divided into experimental group (EG; $n = 30$) and control (CG; $n = 30$) this study has 80.0% power to detect an effect size of $E = S * E/S = 0.736$. EG held twice-weekly Clinical Pilates sessions, lasting 60 minutes, during 10 weeks. The control group did not intervene. The Broome Self-Efficacy Scale was used to evaluate the perception of contraction of the pelvic floor and we used the Psychological Well-Being Scale-reduced version to evaluated psychological well-being. The instruments were applied in two moments, before and after intervention. We used T-Student and Wilcoxon and Mann-Whitney tests, with $\alpha = 0.05$.

Results

Table1: Effect of Clinical Pilates on the individual's belief about the Self-efficacy of the Pelvic Floor and the Psychological well-being

		Experimental Group(EG)		Control Group(CG)		Intergroup (p)		Intragroup (p)	
		M0	M1	M0	M1	M0*	M1*	EG**	GC**
Broome: Self-efficacy of the Pelvic Floor	Part A ^b	43.9 (41.43)	80.7 (9.29)	35.7 (20.00)	35.4 (18.57)	0.329	<0,001	<0,001	<0,001
	Part B ^a	45.0 (22,11)	77.6 (11,06)	35.9 (13.88)	33.9 (13.59)	0.063	<0,001	<0,001	0.002
	Total ^a	46.7 (21,77)	79.0 (10,48)	37.7 (11.56)	35.9 (11.44)	0.050	<0,001	<0,001	<0,001
Psychological well-being	Autonomy ^b	12.5 (5.00)	14.0 (5.00)	11.0 (4.00)	10.5 (4.00)	0.124	0.001	0.001	0.287
	Domain of the Middle ^a	12.0 (2,20)	13.7 (2,20)	12.3 (2.10)	12.1 (2.12)	0.551	0.005	<0,001	0.243
	Personal growth ^a	13.7 (2,66)	14.9 (2,13)	12.9 (1.60)	12.7 (1.78)	0.149	<0,001	<0,001	0.258
	Positive Relations with Others ^a	13.4 (2,87)	13.8 (2,82)	12.1 (2.29)	11.9 (2.57)	0.052	0.011	0.030	0.393
	Goals in Life ^b	15.0 (4.00)	15.5 (2.00)	13.5 (4.00)	13.5 (4.00)	0.040	0.003	0.013	0.539
	Acceptance of Self ^b	13.0 (5.00)	14.5 (4.00)	13.0 (2.00)	13.0 (2.00)	0.493	0.031	0.008	0.915
	Total ^a	79.4 (11,87)	85.3 (9,71)	74.4 (8,77)	73.5 (9,36)	0.069	<0,001	<0,001	0.049

^a Mean (SD). Teste *t-student Independent samples** and *paired ***

^b Median and interquartile deviation. Teste de *Mann-Whitney** e *Wilcoxon***

Interpretation of results

At baseline the groups were homogeneous. After the clinical Pilates intervention, the EG presented significantly higher values of pelvic floor self-efficacy when compared to the CG 79.0 ± 10.48 vs 35.9 ± 11.44 ($p < 0.001$). Also in the psychological well-being the EG presented values significantly higher than the CG 85.3 ± 9.71 vs 73.5 ± 9.36 ($p < 0.001$).

Concluding message

Clinical Pilates had a positive influence on the self-efficacy of the pelvic floor and the psychological well-being of women with urinary incontinence.

Disclosures

Funding: Did not have funding or grant **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Comissão de Ética para a Saúde do Hospital de Braga (CESHB) CESHB 006/2016 **Helsinki:** Yes **Informed Consent:** Yes