

#484 Effectiveness of Multimodal Physiotherapy Approach in Women with Painful Bladder Syndrome/Interstitial Cystitis (PBS/IC): A Preliminary Result

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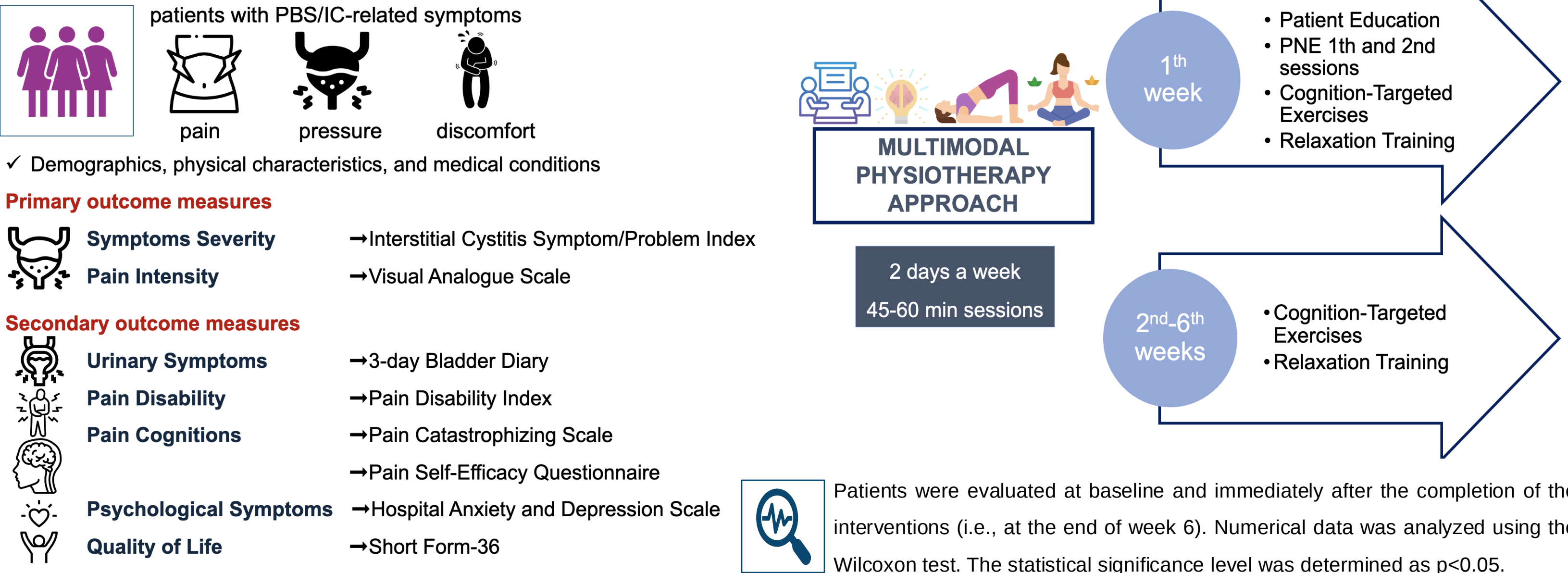


Hypothesis / aims of study

Painful Bladder Syndrome/Interstitial Cystitis (PBS/IC) is a chronic condition characterized by **pain, pressure, or discomfort** in the pelvic area accompanied by **urinary symptoms such as urgency or frequency** (1). Some studies suggest that **central sensitization** may be an underlying mechanism of chronic pain in patients with PBS/IC (2, 3). However, biomedical treatments for PBS/IC have been found to be insufficiently effective. The guidelines emphasize the preference for holistic-focused multimodal physiotherapy approaches based on the biopsychosocial model in the treatment of PBS/IC. However, there is limited evidence supporting the effectiveness of biopsychosocial-based physiotherapy approaches in the management of PBS/IC. **The objective of this study** was to investigate the impact of biopsychosocial physiotherapy approaches on symptoms, pain intensity, disability, pain cognitions, and psychological symptoms in patients diagnosed with PBS/IC.

Study design, materials and methods

single-arm experimental clinical trial design



Results and interpretation

A total of 15 women who had PBS/IC symptoms (age: $43,4 \pm 14,3$ years, BMI: $25,6 \pm 4,7$ kg/m²) were included in this study.

At the end of the 6th week, statistically significant improvements were observed in all outcome measures compared to the baseline, except for urinary symptoms and difficulties in the emotional and physical role sub-domains of quality of life (Table 1). A decrease in the **pain intensity** from **6,3 cm** to **4,2 cm** was observed at the end of the 6th week.

To the best of our knowledge, this study is the first to adopt PNE and a biopsychosocial physiotherapy approach for patients diagnosed with PBS/IC. According to the results of this study, it seems that the biopsychosocial physiotherapy approach can improve pain intensity, pain-related beliefs, and psychological status in patients with PBS/IC at the short-term. On the other hand, the biopsychosocial physiotherapy approach does not seem to be sufficient to improve the urinary symptoms of PBS/IC patients. In addition to the biopsychosocial physiotherapy approach, it would be useful to offer other interventions such as bladder training in these patients.

Table 1: The improvements in outcome measures from the baseline to week 6.

Instruments & Outcomes		Baseline	Week 6	p
ICS&ICPI	Symptom score	11,13±3,77	7,80±3,34	0,010*
	Problem score	12,60±5,36	9,40±4,93	0,002*
Bladder diary	Frequency (n/day)	7,77±2,14	7,70±1,88	0,735
	Nocturia (n/day)	1,12±1,23	1,28±1,11	0,340
Visual Analog Scale (cm)	Pain intensity	6,32±2,04	4,24±2,71	0,005*
Pain Disability Index	Disability	40,26±11,80	27,26±11,79	0,002*
Pain Catastrophizing Scale	Pain catastrophizing	33,80±13,48	21,06±12,89	0,003*
Pain Self Efficacy Questionnaire	Self-efficacy	21,00±12,76	31,52±10,71	0,003*
HADS	Psychological symptoms	19,73±5,22	14,06±5,32	0,008*
SF-36	Physical functioning	68,00±19,89	77,33±16,67	0,024*
	Role limitations - physical	20,00±31,62	40,00±39,86	0,071
	Role limitations - emotional	28,87±37,51	46,67±43,20	0,113
	Energy/ fatigue	31,33±15,86	44,66±20,91	0,032*
	Emotional well-being	47,00±18,58	58,93±16,93	0,018*
	Social functioning	35,83±21,05	56,66±22,59	0,007*
	Pain	30,16±15,19	47,33±20,69	0,008*
	General health	38,00±16,77	50,33±16,74	0,007*

ICSi: Interstitial Cystitis Symptom Index, ICPI: Interstitial Cystitis Problem Index, Cm :centimeter, HADS: Hospital Anxiety and Depression Scale, ICSPi SF-36: Short Form-36.

Conclusions

- ✓ Multimodal biopsychosocial physiotherapy approaches may be a promising treatment modality in the first-line conservative management of PBS/IC to **improve symptoms, disability, and pain related cognitions**.
- ✓ In the management of PBS/IC, integrating this physiotherapy approach, which addresses the biological, psychological, and social aspects of pain, into the physiotherapy programs may be particularly beneficial for patients with maladaptive pain cognitions.
- ✓ **Further RCTs** should investigate the effect of the interventions based on the biopsychosocial model of pain in patients with PBS/IC.

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