Impact of Duration of Pelvic Floor Physical Therapy on Pain Disability in Female Chronic Pelvic Pain

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Introduction

- Chronic pelvic pain (CPP) occurs in up to 25% of adult women.
- There is a need to evaluate the efficacy of therapies for CPP with standardized assessment tools.
- Pelvic floor physical therapy (PFPT) has been established as a beneficial treatment for CPP for various diagnoses
- Recently, the Pain Disability Index (PDI) was demonstrated to adequately track quality of life in CPP patients.
- The utility of the PDI as an outcome measure for improvement after PFPT has not been evaluated.

Objectives

- This study's purpose was to determine the association between PFPT duration and pain disability levels in women with CPP.

Methods

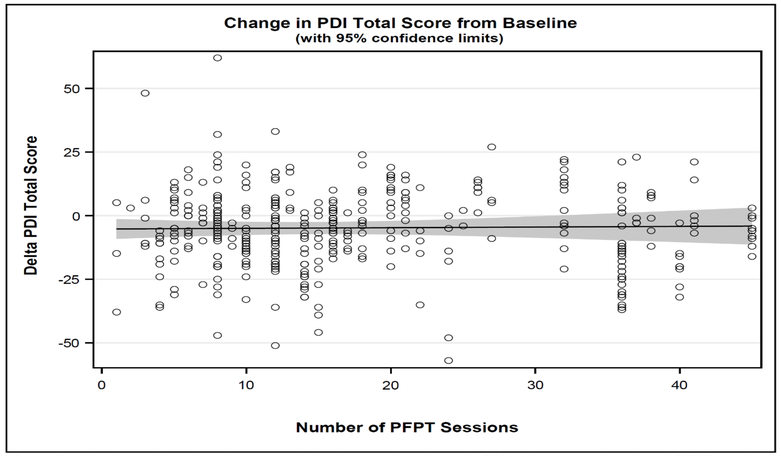
- Retrospective longitudinal cohort study of 317 female CPP patients at a tertiary care center from 2012 to 2020
- Exclusion: acute pelvic pain, features requiring urgent intervention
- 218 patients were prescribed PFPT and 159 had documented participation
- PDI scores were tracked over time
- Multivariable linear mixed-effects models were used to estimate the change in total PDI score from baseline as a function of elapsed time in months, the number of PFPT sessions attended, and their interaction.

Table 1. Demographics

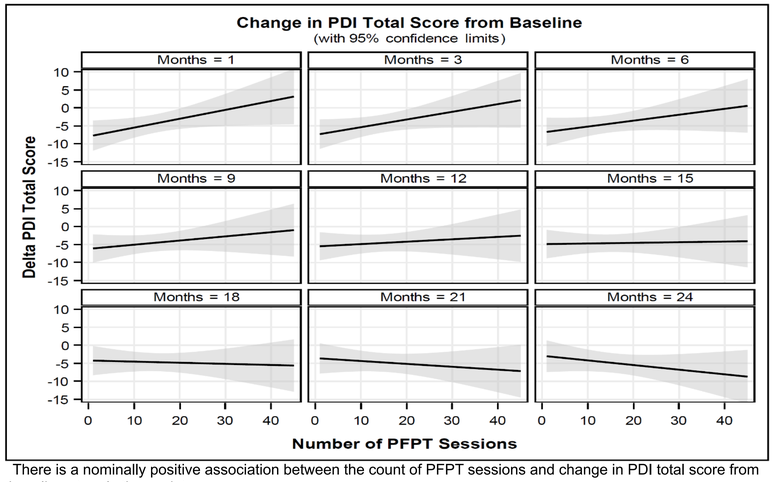
Age, median y (IQR)	44 (34-26)	Duration of symptoms, y (IQR)	3 (1-6)
Patient Race, n (%)		Prior PFPT, n (%)	72 (47%)
White	73 (71%)	PFPT Location, n, (%)	
Non-White	30 (29%)	Home Institution	70 (44%)
Parity		OSH	86 (44%)
Nulliparous	51 (36%)	Both	3 (2%)
Parous	90 (64%)	Baseline PDI Score, median (IQR)	32 (18-47)
BMI, median kg/m^2 (IQR)	26 (22-30)	Number of PFPT, median (IQR)	12 (6-18)

On average, patients had 3 years of symptoms, were prescribed 12 sessions of PFPT, with the majority choosing to participate at the home institution.

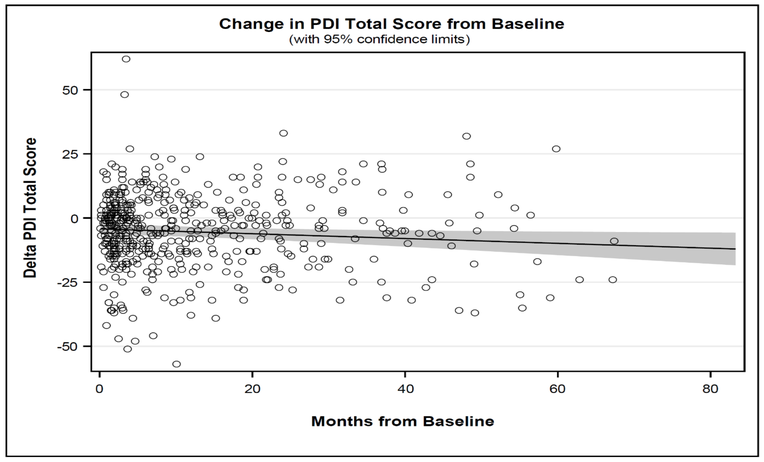
Results



Controlling for elapsed time there is no association between the change in PDI total score and number of PFPT sessions.



There is a nominally positive association between the count of PFPT sessions and change in PDI total score from baseline at early time points.



Controlling for the number of PFPT sessions, the total PDI score declines by approximately points for every 1 month increase from baseline.

- The association between the count of PFPT sessions and the change in the PDI total score from baseline depended on when the follow-up PDI assessment was taken (elapsed months from baseline; interaction p < .001).
- There was a nominal positive association between the total number of PFPT sessions and the change in PDI score from baseline at early time points but not later.
- After one month, participants' PDI score increased 0.25 points for every additional PFPT session completed (p = .047).
- Conversely, after two years participants' total PDI score was not associated with the number of PFPT sessions completed (*p* = 0.29).
- Elapsed time was the primary covariate affecting the PDI score.
- When removing the interaction term and controlling for the number of PFPT sessions completed, the total PDI score declined by -0.12 points for every 1month increase from baseline (*p* = 0.01).

Conclusions

- Functional ability in women with CPP as measured by the PDI does not improve based on solely on the number of PFPT sessions but does improve nominally over time.
- Further research on the specific effect of PFPT components including manual therapy, pelvic floor muscle re-education, strength training, behavioral modification as well as training experience of provider is warranted

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