

OUTCOMES FOLLOWING AN INTENSE PHYSICAL THERAPY PROGRAM FOR PELVIC FLOOR DYSFUNCTION

Hypothesis / aims of study

Conservative approaches to pelvic floor dysfunction are commonly offered as first line therapy, but the optimal treatment schedule for pelvic physical therapy has not been standardized. The purpose of this study was to evaluate the outcomes of a short-term, intense physical therapy program for women with pelvic floor dysfunction.

Study design, materials and methods

This is a case series reporting the outcomes of a short-term, intense physical therapy program for women with pelvic floor dysfunction treated between January 1, 2011 and December 31, 2015. Pelvic floor dysfunction diagnoses included chronic pelvic pain, urinary or defecatory dysfunction, pelvic organ prolapse, and/or dyspareunia. Women participating in the intense physical therapy program were offered a weeklong treatment plan consisting of daily sessions with multiple treatments per day. Various modalities were utilized, including pelvic muscle training, thermal modalities, relaxation training, manual therapy, electrical therapy, and education techniques.

Responses to the Pelvic Floor Distress Inventory (PFDI-20) were collected at baseline and following completion of the program to evaluate changes in quality of life scores. The PFDI-20 is comprised of three scales: Pelvic Organ Prolapse Distress Inventory (POPDI-6), Colorectal-Anal Distress Inventory (CRADI-8), and the Urinary Distress Inventory (UDI-6). A 15% decrease in total PFDI-20 score indicated clinically significant improvement.[1]

Descriptive statistics were generated on all demographic, medical history, and physical examination findings. Differences between PFDI-20 total scores before and after treatment were analysed with a paired sample t-test. All calculated P values were 2-sided and P <0.05 was considered statistically significant.

Results

Thirty women underwent the weeklong intense physical therapy program during the study period. Women attended a median of 10 sessions (range 3-23) over a median of 4.5 days (range 1-20). The most common indication for treatment was chronic pelvic pain (n=17, 56.7%), followed by pelvic floor tension myalgia (n=7, 23.3%), abdominal pain (n=3, 10%), pelvic floor dysfunction (n=2, 6.7%), and vulvodynia (n=1, 3.3%). Five women (16.7%) had Interstitial Cystitis/Painful Bladder Syndrome, 6 (20%) had endometriosis, 4 (13.3%) had fibromyalgia, and 4 (13.3%) had chronic pain. Six women (20%) had a history of irritable bowel syndrome. All women had documented pelvic muscle spasm during evaluation by Physical Therapists specializing in evaluation and treatment of pelvic floor dysfunction.

The mean age was 48.9 years (SD 13.06). The majority of women were Caucasian (n=29, 96.7%), parous (n= 20, 66.7%), post-menopausal (n=18, 60%), and non-smokers (n=21, 70%). Prior surgeries included hysterectomy in 16 women (53.3%), sling in 4 (13.3%), and pelvic reconstruction for prolapse in 2 (6.7%).

At baseline, 25 (83.3%) women reported urinary symptoms, 24 (80%) reported bowel symptoms, 21 (70%) reported dyspareunia, and 4 (13.3%) reported pelvic organ prolapse. Nine women (30%) previously underwent pelvic physical therapy. Of the women with urinary symptoms, 18 had stress incontinence and 13 had urgency incontinence. Other reported urinary symptoms included urgency (50%), frequency (66.7%), and incomplete emptying (56.7%). Constipation was the most reported bowel symptom (43.3%), followed by fecal incontinence (20%) and diarrhea (10%).

Techniques most often utilized during sessions included physiologic quieting (100%), gait training (100%), pelvic floor muscle down training (93.3%), short wave diathermy (80%), and diaphragmatic breathing (66.7%). Manual techniques included strain-counterstrain (53.3%), muscle energy (30%), and visceral mobilization (43.3%). Five patients underwent therapy with vaginal dilators. Electrical modalities included vaginal electrogalvanic stimulation (ESTim), which was utilized on all patients, and transcutaneous electrical nerve stimulation (TENS), which was used internally on 29 patients (96.7%). Educational techniques included bladder retraining (30%), bowel retraining (23.3%), and pain neuroscience education (66.7%).

Baseline median pre-treatment total PFDI-20 score was 110.4 (range 20.83-245.83). The median post-treatment total PFDI-20 score was 58.9 (range 4.17-236.43), which was a statistically significant change (p = 0.0008). Median (range) scores for each sub-scale of the PFDI-20 were also recorded. Pre-treatment scores were 43.8 (0-75), 31.3 (0-93.8), and 43.8 (0-100) for the POPDI-6, CRAD-8, and UDI-6, respectively. Following treatment completion, median scores decreased to 33.3 (0-83), 12.5 (0-71.9), and 27.1 (4.2-87.5) for the POPDI-6, CRAD-8, and UDI-6, respectively. Statistically significant differences within each sub-scale were also reached (POPDI-6 p = 0.0026, CRAD-8 p = 0.0026, and UDI-6 p = 0.004). Five women (16.7%) reported a higher post-treatment score, indicating an exacerbation of symptoms. Clinically significant improvement in PFDI-20 score was achieved in the majority of women (n=20, 66.7%).

Interpretation of results

Although physical therapy is often utilized as a first-line treatment of pelvic floor dysfunction, little is known about the optimal treatment schedule. We found that a comprehensive, intense physical therapy program comprised of a median of 10 sessions over a median of 4.5 days can result in significant improvement in quality of life for patients with pelvic floor dysfunction.

Concluding message

The majority of patients undergoing a short-term, intense physical therapy regimen for pelvic floor dysfunction achieve clinically significant improvement in symptoms.

References

1. Barber MD, Walters MD, Bump RC. Short forms of two condition-specific quality-of-life questionnaires for women with pelvic floor disorders (PFDI-20 and PFIQ-7). Am J Obstet Gynecol. 2005 Jul;193(1):103-13.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Mayo Clinic Institutional Board Review Committee

Helsinki: Yes **Informed Consent:** Yes