

Ghaderi, F., Bastani, P., Hajebrahimi, S., Jafarabadi, M. A., & Berghmans, B. (2019). Pelvic floor rehabilitation in the treatment of women with dyspareunia: a randomized controlled clinical trial. *International urogynecology journal*, 30(11), 1849–1855. <https://doi.org/10.1007/s00192-019-04019-3>

Pelvic Physical Therapy Distance Journal Club

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January 10th, 2024

Why did I choose these articles? To explore our understanding of how strengthening of the pelvic floor plays a role in the treatment of dyspareunia.

This RCT is one included in the Systematic Review we will discuss next.

- Introduction: Diagnostic and Statistical Manual of Mental Disorders-V-text revision (DSM-V-T), dyspareunia is sub-classified in genito-pelvic pain/penetration disorders in which a woman experiences recurrent genital pain before, during, or after vaginal penetration
 - *Reported prevalence varies greatly from - (studies quoted are from 8-21% in 1999 article, 54% in 2007 article on Iranian women, 8.9% to 14.8% in 2008 in Fernandez article) I found a 2021 article reporting 29%-46% of women completing a survey in a urology practice in Canada.*
 - Pelvic floor muscles (PFMs) become “weak and overactive simultaneously” in dyspareunia
- Aim/Primary Aim: to evaluate the effects of pelvic floor rehabilitation with treatment addressing both PFM strength and endurance, and treatment to reduce overactivity and pain on dyspareunia using a randomized controlled clinical trial.
- Study Design/Study Format: RCT
 - Methods: 84 women with dyspareunia were assessed for eligibility, referred to the physiotherapy clinic by urogynecologist who examined each patient to rule out other causes of dyspareunia except for muscular problems. See Figure 1 page 1851
 - Inclusion criteria: pain greater than 8 on a 10-cm visual analog scale (VAS pain in the genital area before, during, or after vaginal intercourse)
 - Exclusion criteria: any history of other pathophysiological conditions, such as infections, tumors, major psychiatric illnesses, **vaginism, vestibulodynia**, vulvar dermatological , conditions, **painful bladder syndrome or interstitial cystitis**, endometriosis, pregnancy, surgery on pelvic organs, or any ongoing treatment for dyspareunia
 - Participants were randomized into 2 groups with software, assessor and statistician were blinded
 - Experimental group received physiotherapy treatments once a week for 3 months, whereas the control group was put on a waiting list and received no treatment
 - A specialized physiotherapist in pelvic floor rehabilitation assessed the participants without knowing group allocations (Blinded assessor)
 - Modified Oxford Scale

- Pain severity to palpation at tender points using VAS
 - FSFI Persian version
 - Experimental group treatment
 - Session 1: education anatomy and function of PFM, Vaginal exam digital feedback of PFM activity
 - 10 sessions, 1x/week x 3 months + “progressive PFM ex at home every day”
 - Each session contained 15-20 min manual techniques, graded PFM ex progressed each week (no details of progression) 20-25 min intravaginal TENS 110 Hz, No treatment during menstruation
- Results: 64/84 eligible women were included and randomized
 - Before treatment the experimental group had worse pain, worse strength, and worse endurance (Table 1) compared to the control group
 - After treatment the experimental group should significant improvement in PFM strength, endurance, FSFI scores, and VAS score. VAS score remained improved 3 months after last rx session
 - See Fig 2- dramatic visual trend in VAS
- Discussion:
 - Authors note that their protocol can’t be compared with previous studies 2 to differences in rx protocols
 - BFB +/- manual rx +/- PFM ex
 - use of digital vs instrumented BFB; authors tout value of digital bfb
 - Strengths:
 - 12 weeks of progressive PFM ex served to “significantly restore painless intercourse by breaking the vicious pain–spasm cycle.”
 - First study using a control group without treatment: very interesting creative strategy
 - “ in women with musculoskeletally and myofascially based dyspareunia intravaginal manual techniques, including massage and myofascial release of PFM, result in **significantly relaxing PFM, diminishing overactivity** of the PFM, (questionable terminology) and a significant decrease in Genito pelvic pain during sessions.”
 - Limitations:
 - No specific details of PFM ex progression
 - No details of how endurance was measured
 - No reliability of strength measures reported
 - No direct measure of PFM activity (instrumented sEMG would have been interesting)
 - Further examination of relationship between strength , pain, and sexual function would have been valuable

Conclusion/Summary: This PF Rehabilitation program, consisting of digital biofeedback, intravaginal manual techniques, PFM ex, and TENS, improved pain, sexual function, PFM strength, and PFM endurance in women with symptomatic dyspareunia

- List discussion questions – save for next article

Other References: optional

Yeaman, C., Zillioux, J., Boatman, K., Krzastek, S., & Rapp, D. E. (2021). Prevalence and characterization of dyspareunia in a general urology clinic population. *The Canadian journal of urology*, 28(6), 10929–10935.