

Painful Intercourse is Significantly Associated with Evoked Pain Perception and Cognitive Aspects of Pain in Women with Pelvic Pain. Alappattu et al. Sexual Med 2015; 3:14-23.

Pelvic Physiotherapy Distance Journal Club Outline

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Subjects:

- 28 pain-free women and 14 women with chronic pelvic pain (CPP) lasting 3 months or longer
- The assignment of patients was not randomized
- Both groups were not similar at the start of the trial. Both groups were 18 + y/o but the purpose was to compare pain-free individuals to those with CPP

Study Design/Method:

- Participants were recruited, completed self report and pain-related psychosocial measures in a single session then completed pain sensitivity testing between days 4 and 20 of their menstrual cycle
- Level 2b: prospective cohort study
- Groups:
 - Pain-free women and women with CPP: completed self-report questionnaires on clinical pain intensity, pain catastrophizing, pain-related fear, pain anxiety, depression, sexual function and self-efficacy and underwent pain sensitivity testing
- The groups were treated equally
- Quality outcome measures were used:
 - Pain Sensitivity:
 - 101-point Numeric Pain Rating Scale (NPRS) rating the following:
 - Thermal threshold, tolerance and temporal sensory summation of pain delivered with a thermode controlled by the Medoc Neurosensory Analyzer
 - Pressure pain thresholds with use of thimble algometer (bilateral internal puborectalis and upper and lower vulvar vestibule) and handheld algometer (dominant tibialis anterior and dominant thumb web)
 - Self-Report Measures:
 - 101-point Numeric Pain Rating Scale (NPRS): current, least, worst, and resting pelvic pain and intercourse pain in the last 48 hours and last 7 days
 - Short-Form McGill Pain Questionnaire: affective, sensory and evaluative domains (MPQ)
 - Female Sexual Function Index (FSFI)
 - Pain Anxiety Symptoms Scale (PASS)

- Pain Catastrophizing Scale (PCS)
 - Patient Health Questionnaire-9 (PHQ-9)
 - Tampa Scale for Kinesiophobia (TSK-11)
 - Pain Self-Efficacy Questionnaire (PSEQ)
- Blinding:
 - Subjects: No
 - Treating Therapists: N/A
 - Assessors: Unclear

Assessing the Outcome:

- Unclear if the dropout rate of 18 was acceptable
- This is not an intervention study, therefore intention to treat and treatment effect is N/A:
 - However, the required sample size calculated to predict differences in cutaneous pain ranges was 22. The researchers sought 28 participants per group to account for potential dropouts. They were able to meet this quota for pain-free subjects but not CPP subjects

Results:

- Demographic Factors:
 - Average age of pain-free group: 29.5 years
 - Average age of CPP group: 39.57 years
 - Average duration of pelvic pain: 60.35 months
- Pain Intensity and Quality:
 - CPP group:
 - Reported significantly higher current, resting and intercourse pain during the last 48 hours and 7 days
 - Reported significantly higher scores on both the sensory and affective domains of the McGill Pain Questionnaire
- Pain-Related Psychosocial Measures:
 - Age was significantly positively correlated with measures of depression, self-efficacy and sexual function (i.e. older women had higher depression, lower self-efficacy and lower sexual function)
 - Women with CPP:
 - Demonstrated significantly higher pain anxiety, depression, catastrophizing and pain-related fear compared with pain-free women as well as lower pain self-efficacy (less ability to cope with pain)
 - Scored significantly lower on the FSFI with the average score indicative of sexual dysfunction
- Pain Sensitivity:
 - Women with CPP demonstrated no significant differences in pain pressure threshold (magnitude) at any local or remote sites compared with pain-free

women but rated (perception) their pain significantly higher at the left puborectalis muscle and upper vestibule

- Correlations Between Intercourse Pain with Psychosocial Factors and Pain Sensitivity in Women with CPP:
 - Intercourse pain intensity was significantly positively correlated with both the affective and sensory domains of the McGill Pain Questionnaire
 - i.e. What does your pain feel like? Affective- Flickering, quivering, pricking, shooting? Sensory- tiring, exhausting, sickening, suffocating?
 - Intercourse pain was also significantly correlated with pressure pain ratings at the right puborectalis, lower vestibule, adductor longus and tibialis anterior but not with any other evoked pressure pain ratings

Conclusion:

- Women with CPP:
 - Reported greater pain intensity and psychosocial involvement compared with pain-free women
 - Perceive stimuli in the pelvic region (puborectalis and vulvar vestibule) as more painful than pain-free women
- The association between intercourse pain and local and remote sites suggests altered central pain processing and potential enhanced supraspinal involvement

Discussion Questions:

- Have you seen patients with CPP who also have increased tibialis anterior, adductor longus or any other remote body region pain?
- Isolated pain sensitivity ratings (thermal, pressure, temporal summation) for women in this study were highest at the left puborectalis and upper vestibule, but intercourse pain was correlated with pressure pain ratings at the right puborectalis and lower vestibule. Any thoughts about these findings?
- In CPP diagnoses such as vulvodynia, do you commonly use the q-tip test (sensitivity 73% and specificity 100% Esfahani and Jarrell 2013) or other means to assess pain thresholds such as an algometer? Do you feel the investment significantly contributes to evidence-based practice?
- What outcome measures or screening tools do you use in your patients with CPP?