Understanding and Managing Recurrent Pelvic Pain

in the Emergency Department and beyond

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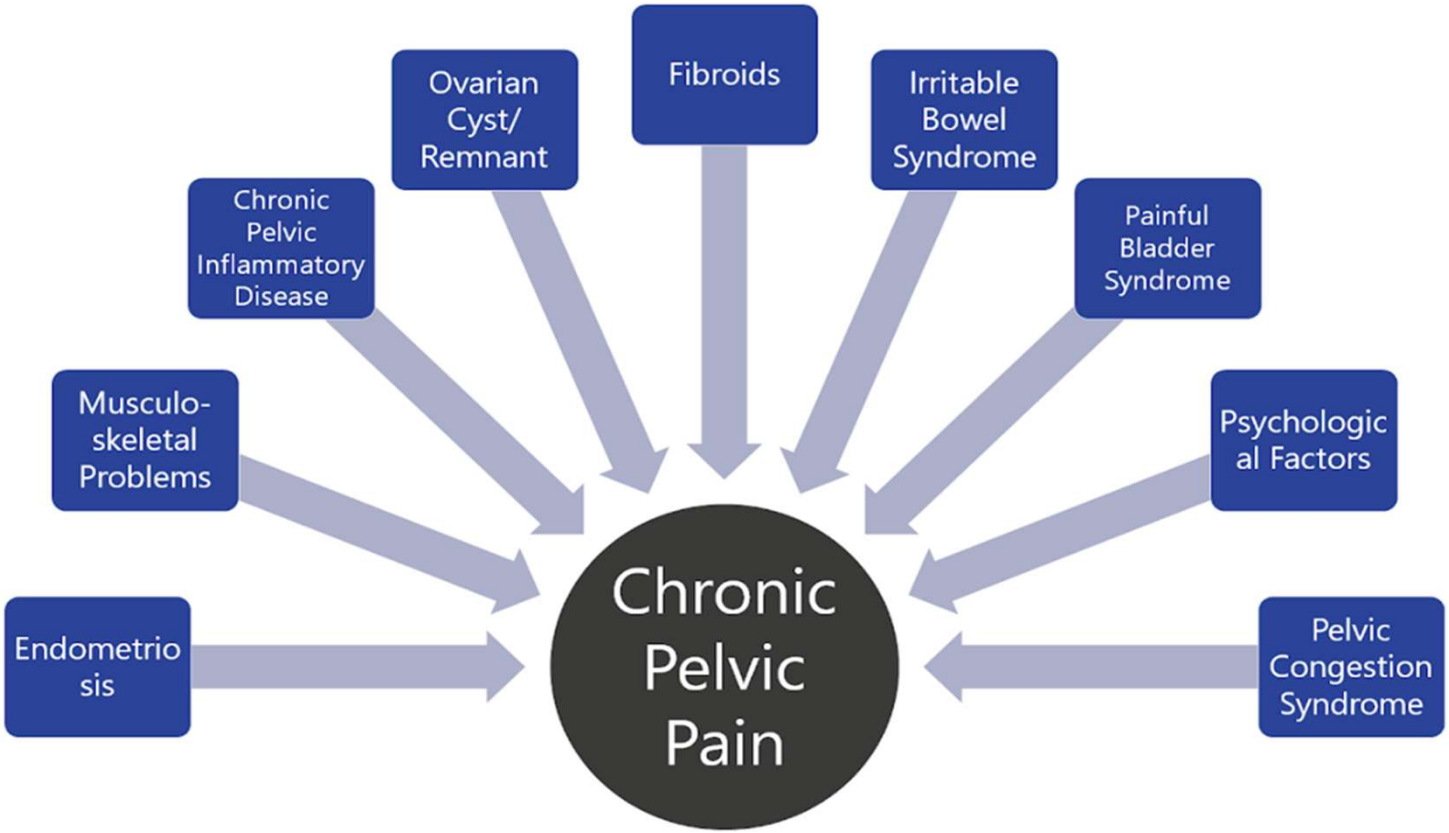
1. Conceptualising Persistent Pelvic Pain?
2. Current ED management guidelines
3. Medical Management of PPP
4. Musculoskeletal Features and Management
5. Pelvic Floor features and management
6. Central Sensitisation
7. Multidisciplinary PPP Clinics
8. Take home message for all physios
9.

Persistent Pelvic Pain (PPP) is an umbrella term for pain in the pelvis over 3-6 months



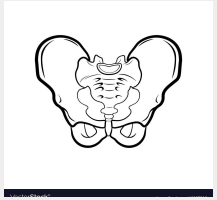
PPP is best thought about in terms of pain mechanisms

1. **Pain from Pelvic Organs**
2. **Central Sensitisation of neural pathways**
3. **Musculoskeletal response to pain**
4. **Psychosocial sequalae of the pain condition**

The above mechanisms are often closely intertwined with each other and rarely occur in isolation

Evans, S. F. (2024). Chronic pelvic pain with normal laparoscopic findings. Australian Journal of General Practice, 53(1/2), 27–31. https://search.informit.org/doi/10.3316/informit.T2024031100006591124308759

Approximately 15% of individuals with Persistent Pelvic Pain present to the Emergency Department as a way of managing recurrence.



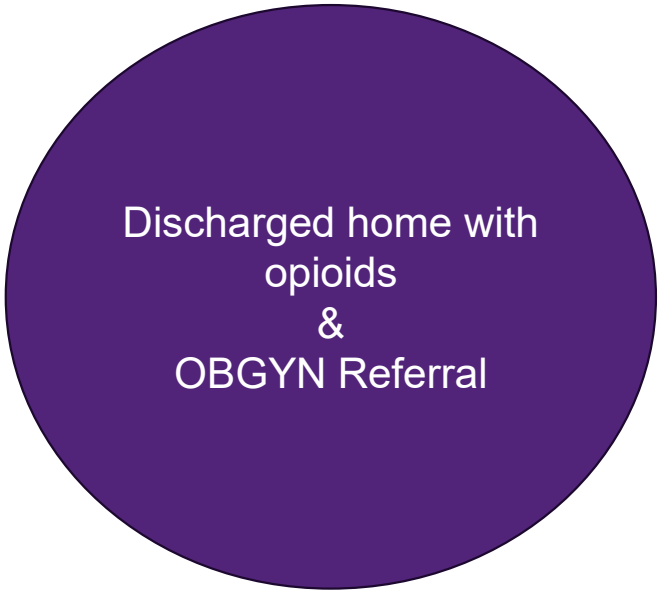
Most common causes of presenting to ED include:

- Painful menstruation
- Constipation
- Urinary Tract Infection
- Bladder Pain
- Pelvic Muscle Spasm

Less common triggers also include:

- Emotional or social stressors
- Other infections e.g. vulvovaginitis

Previous Forms of ED Management have not been sufficient in reducing the number of ED re presentations



In 2024 Queensland Health released a set of guidelines on the ED Management of Acute on Persistent Pelvic Pain in line with current evidence

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Care principles

Aspect	Consideration

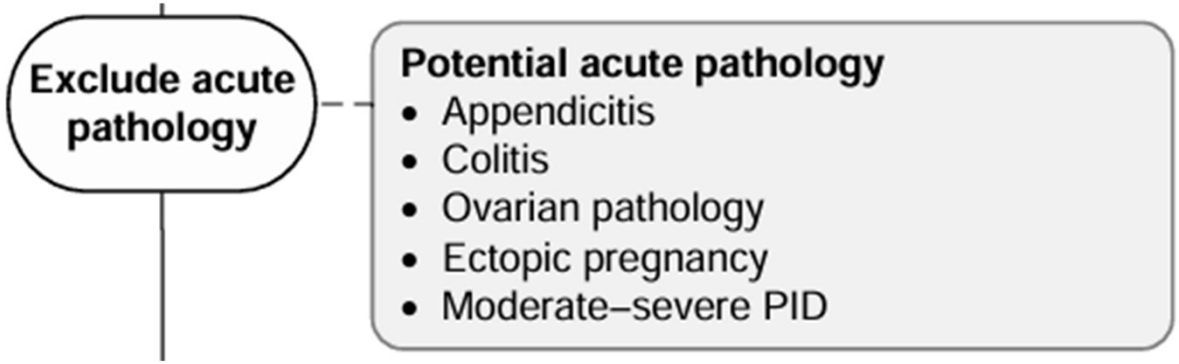
Context	• Provide care that is:
	  ○ Trauma-informed [refer to Definitions]
	  ○ Culturally safe [refer to Queensland Clinical Guideline *Standard care*[8]]
	  ○ Holistic, using a biopsychosocial framework[16,20]

Goals of care	• Validate pain experience and respond empathetically[16] • Avoid unnecessary admission, investigations and invasive procedures (e.g. laparoscopy) wherever possible • Confirm symptoms consistent with a flare of PPP—identify and manage potential triggers[19] • Provide appropriate analgesia, avoiding opioids wherever possible[19]
Exclude acute pathology	• Assess for red flag symptoms that may indicate acute pathology[17] (e.g. appendicitis, colitis, ovarian torsion, ectopic pregnancy, moderate–severe pelvic inflammatory disease (PID)): ○ Syncope, haemodynamic instability, fever or chills, changed pain severity or character, nausea, vomiting or diaphoresis, peritonism

Repeated presentations	• Discuss with treating primary care provider wherever possible
	• Consider frequency and pattern of presentations
	• Encourage attendance at scheduled appointments
	  ○ If pattern of non-attendance, explore barriers
	• Recommend early escalation to senior clinician
	  ○ Discuss need prior to repeat investigations
	• Provide advice for ongoing support services [refer to Discharge and follow up]

Short guide: Acute presentation of persistent pelvic pain

Ruling out acute pathologies is the first consideration and is best done by a medical practitioner



If there is a clinical suspicion, it usually requires further non-invasive investigations

Reversible causes generally fall under those pain mechanistic categories and in an ED setting are addressed through non-opioid pharmacological and supportive strategies

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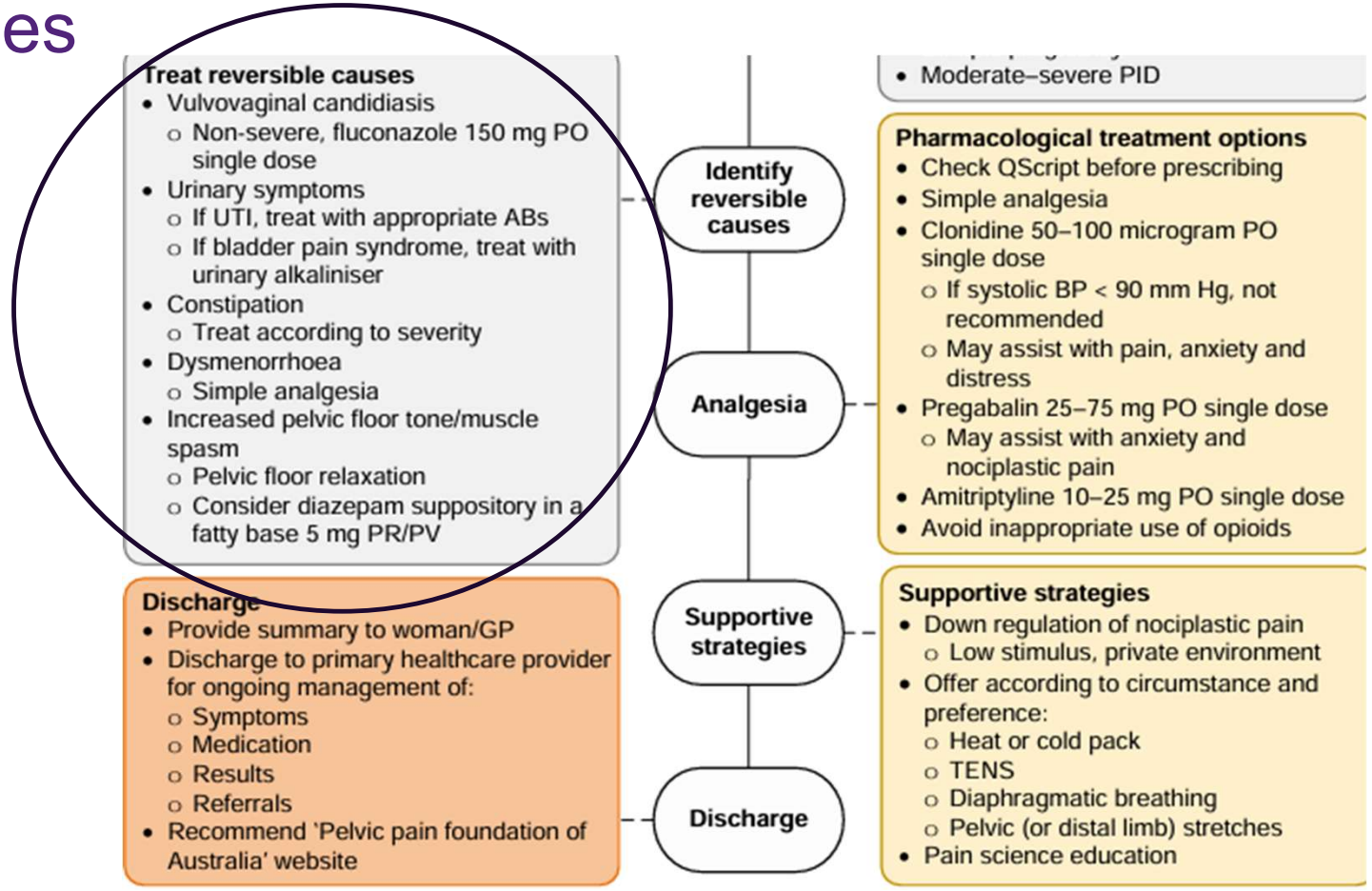
[Short guide: Acute presentation of persistent pelvic pain]



The physiotherapist role in preventing ED re presentations is understanding and managing the underlying mechanisms within an outpatient or MDT setting

Pain from Pelvic Organs:
Medical

Musculoskeletal Response to Pain:
MSK & Women's Health Physio

Central Sensitisation:
Multidisciplinary team

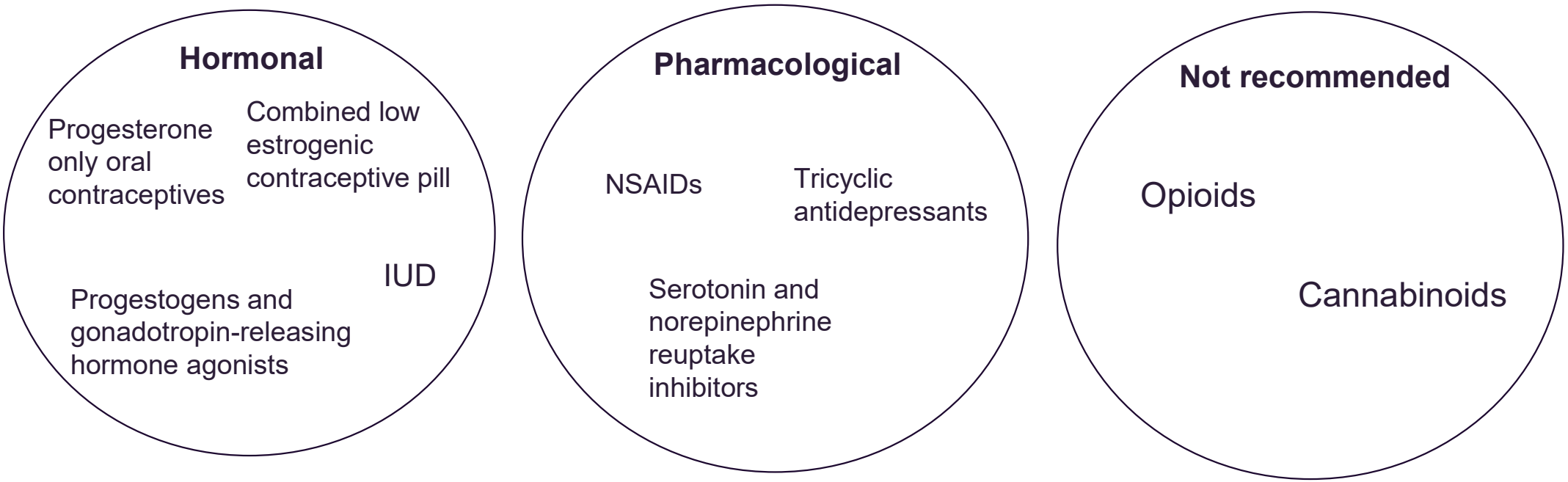
Psychological sequalae:
Psychologist & MDT

There are a variety of independent and integrated conditions that contribute to pain from pelvic organs, which are best managed through a specialised medical professional.

Gynaecological	Gastrointestinal	Urological	Peripheral Nerve
Vulvar Pain Syndrome Endometriosis Dysmenorrhoea Adenomyosis	Irritable bowel syndrome Chronic Anal Syndrome Haemorrhoids	Interstitial Cystitis	Pudendal Neuralgia

Biroli, A., & Giammò, A. (2021). *Chronic pelvic pain and pelvic dysfunctions : assessment and multidisciplinary approach (1st ed.). Springer International Publishing*.

Gynaecological contributors are the most common and best manage through pharmacological and hormonal therapies.



Allaire C, Yong PJ, Bajzak K, Jarrell J, Lemos N, Miller C, et al. Guideline No. 445: Management of Chronic Pelvic Pain. Journal of Obstetrics and Gynaecology Canada. 2024;46(1):102283

The musculoskeletal response to pain can be thought about as managing co existing musculoskeletal dysfunction and addressing pelvic floor hypertonicity

There have been various cross sectional and randomized controlled trials that highlighted the postural discrepancies of individuals with chronic pelvic pain.

Table3. Musculoskeletal finding among women with CPP and the controls.

Variable	CPP group (n=42)	Control group (n=42)
Iliac crest height asymmetry	19(45.2%)	4(9.5%)
Pubic symphysis height asymmetry	19(45.2%)	4(9.5%)
(+) Distraction	4(9.5%)	0(0%)
(+) Compression	7(16.7%)	1(2.4%)
(+) Thigh Thrust	15(35.7%)	5(11.9%)
(+) Sacral Thrust	20(47.6%)	6(14.3%)
(+) Gaenslen's Nutation	26(61.9%)	7(16.7%)
Scar and skin lesion in abdomen	21(50%)	21(50%)
(+) Carnett's test	21(50%)	2(4.8%)
Abdominal muscle tenderness	36(85.75%)	8(19%)

Sedighimehr, N., Manshadi, F. et al. 2018

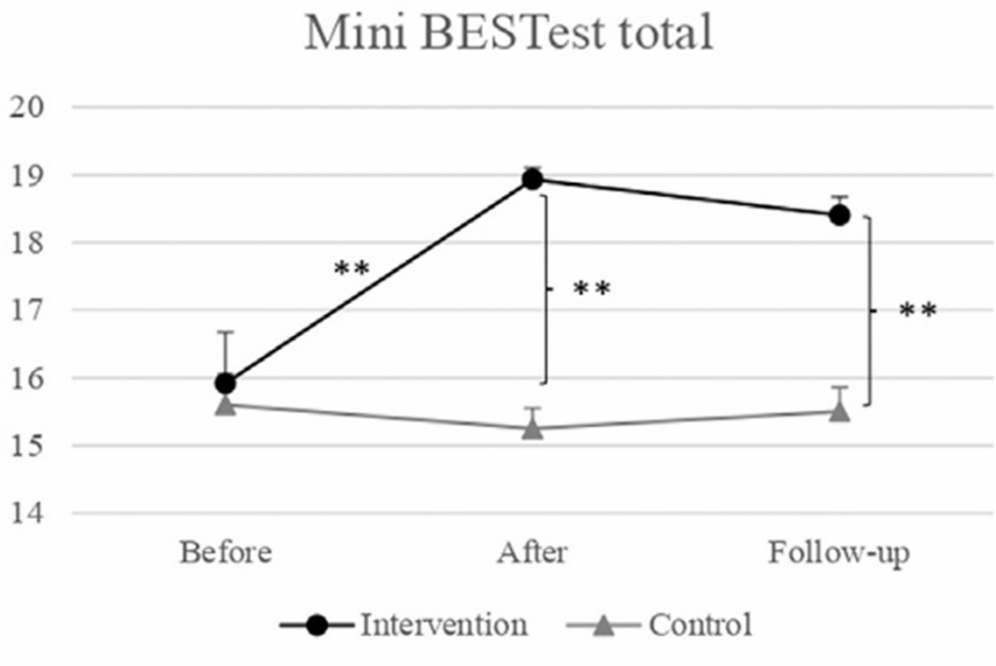
Women with CPP performed significantly worse on a systems balance and dynamic balance tests.

Increase in forward head posture, increased deviation in spinal alignment, as well as increased thoracic kyphosis and lumbar lordosis.

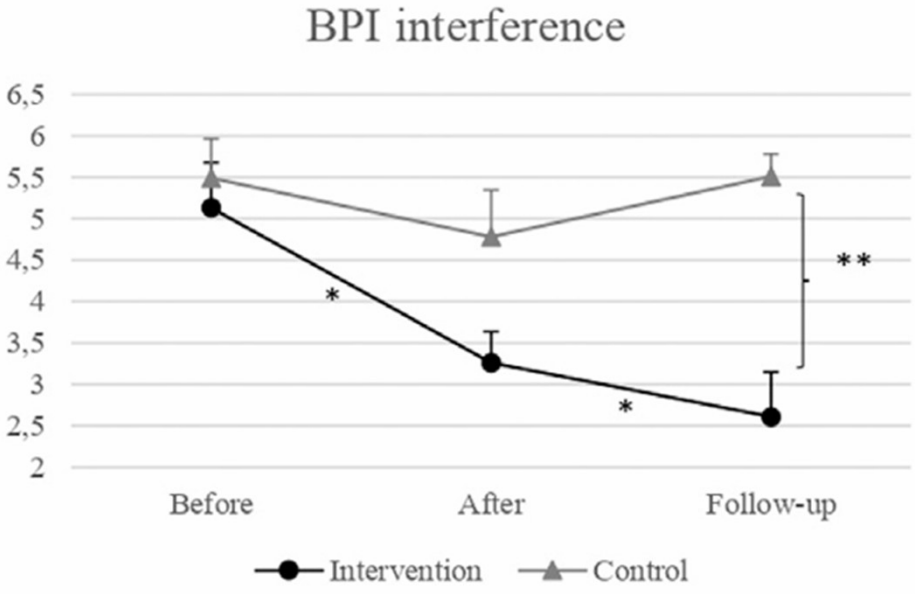
Lower back pain, hip weakness, increased anterior pelvic tilt and tightness in rec fem, piriformis, obturator internus and adductor muscles

Biroli A, Giammo; 2021.
Rodríguez-Torres, J., López-López, 2020

There is moderate quality evidence in favour of a combination of postural, body awareness and balance exercises



Systems Balance test



Brief Pain Inventory

Rodríguez-Torres, J., López-López, 2020

There is moderate to low quality evidence for exercise therapy and managing movement-based disorders

Improving hip, pelvic strength and function

Reduction in hip pain

Yuniana R, Tomoliyus, Kushartanti BMW, Arovah NI, Nasrulloh A. Effectiveness of massage therapy, continued exercise therapy against pain healing, ROM, and pelvic function in people with chronic pelvic injuries. Journal of Physical Education and Sport. 2022;22(6):1433-41.

Multiple studies have found an association between persistent pelvic pain and pelvic muscle hypertonicity.

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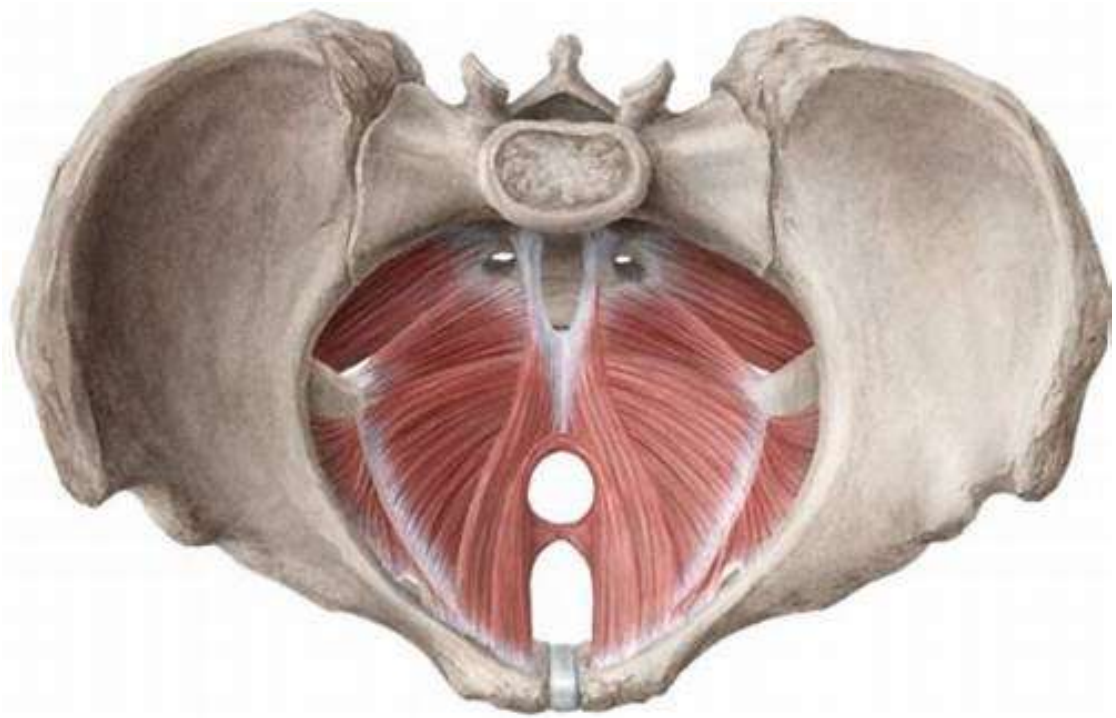
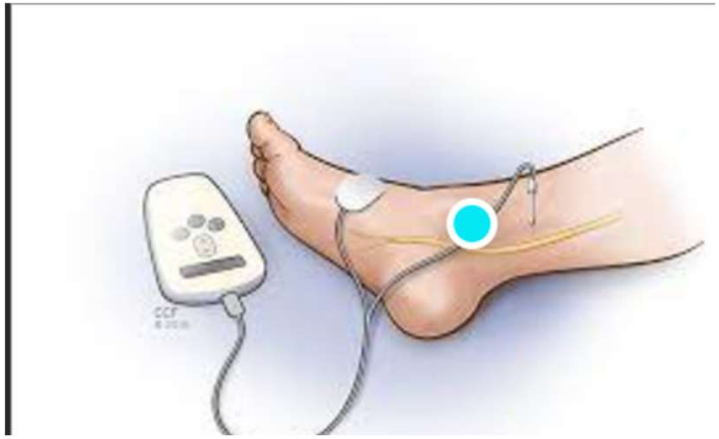
- **Increased levator ani tone**
- **Increased hypertonicity of the obturator internus and glute medius**
- **Associated issues such as dyspareunia, constipation, vulvodynia and other urinary issues**



The pelvic floor is best managed through an experience women's health physiotherapist

- Multimodal pelvic physiotherapy had a high impact in reducing pain scores and improving psychological and sexual function



Pelvic Pain Foundation

M Starzec-Proserpio, H Frawley, K Bo, M Morin, (141) MULTIMODAL PHYSIOTHERAPY FOR CHRONIC PELVIC PAIN IN WOMEN – A SYSTEMATIC REVIEW AND META-ANALYSIS, *The Journal of Sexual Medicine*, Volume 21, Issue Supplement_6, December 2024, qdae161.116, https://doi.org/10.1093/jsxmed/qdae161.116

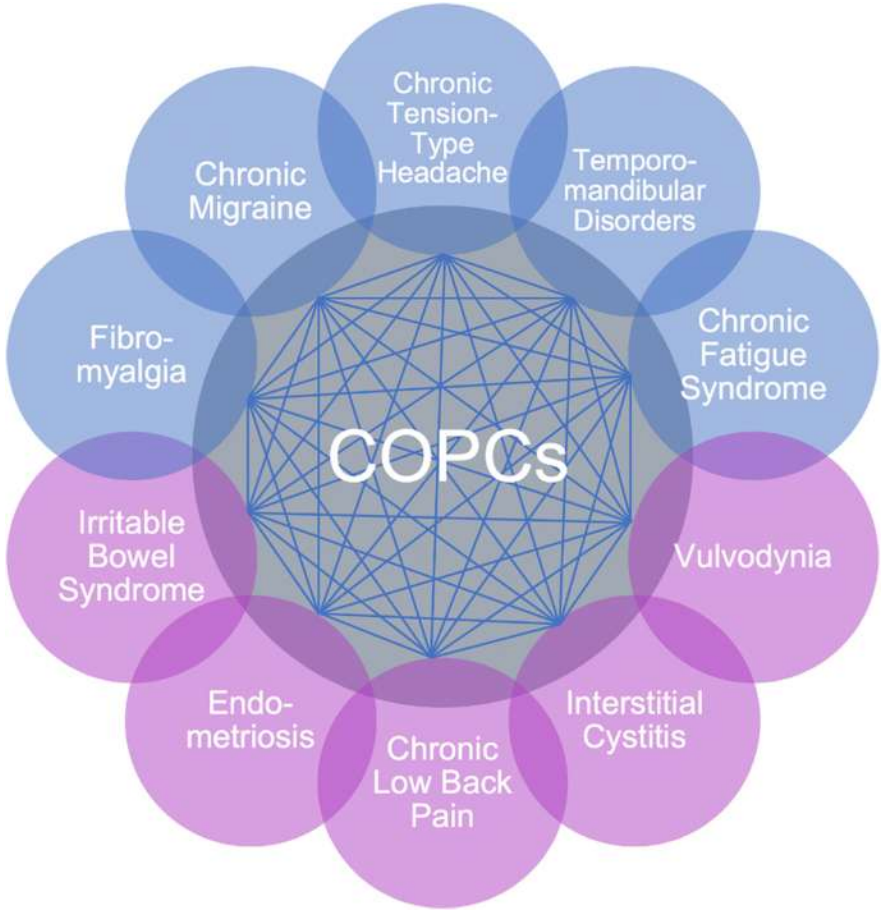
When pelvic pain is persistent and unresponsive to standard treatment, there is likely an element of altered pain processing which follows a central sensitisation pattern

A 2022 Delphi Study agreed on common elements and symptoms that suggest the presence of central sensitisation

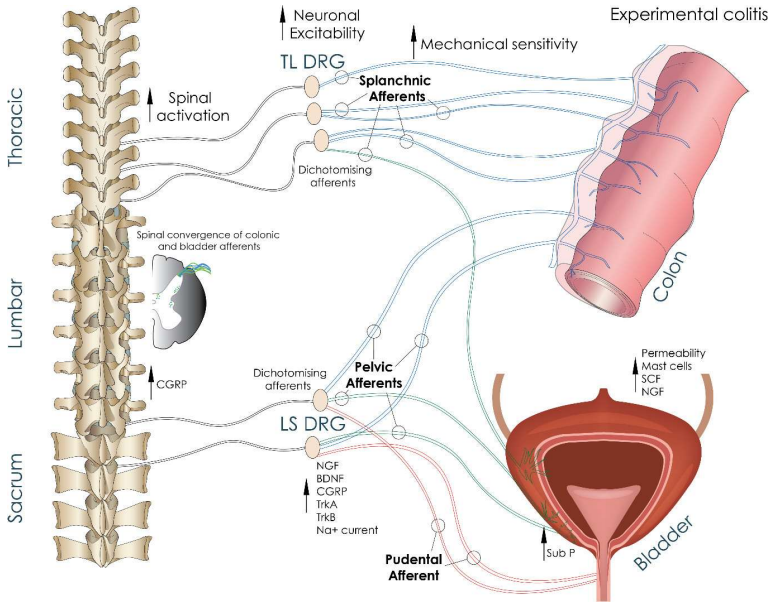
	Lower urinary tract	Lower digestive tract	Genito-sexual tract	Mucocutaneous areas	Muscular system
Lower pain perception thresholds	•□ Pain influenced by bladder filling and / or urination	•□ Pain influenced by the distension and / or rectal emptying (materials, gas)	•□ Pain during sexual activity	•□ Perineal and/or vulvar pain in response to normally non-painful pressure (allodynia) (e.g. pain preventing Tampons used during menstruations, or discomfort with tight clothing)	•□ Pelvic trigger points (e.g., localized to piriformis, internal obturator and/or levator ani musculature)
Temporal distribution	•□ Pain after urination	•□ Pain after defecation	•□ Pain after sexual activity		
Symptoms variability	•□ Variability in pain intensity (evolving with high and low) and / or variability in painful topography				
Associated syndroms	•□ Migraine or tension headaches and/or fibromyalgia and/or chronic fatigue syndrome and/or post-traumatic stress disorder and/or restless leg syndrome and/or temporo-mandibular joint disorder and/or multiple chemical sensitivities				

The presence of five or more items is suggestive of sensitization of pelvic pain.

Common overlapping pain conditions (COPCs) also indicate common central sensitizing mechanisms



Cross Organ Sensitisation is a common mechanism in individuals with Persistent Pelvic Pain



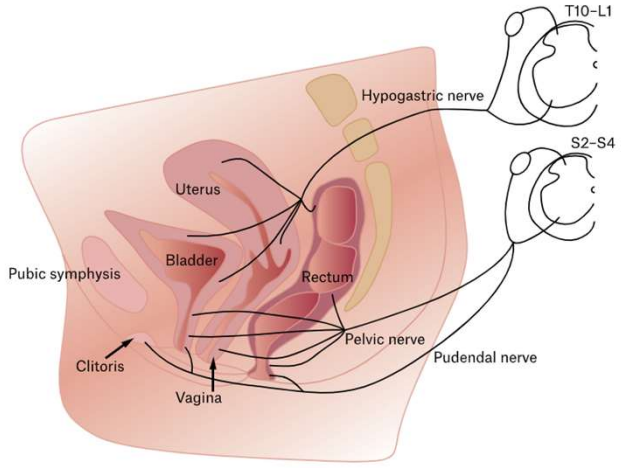


Figure 3. The shared sensory innervation of the pelvic organs via the hypogastric nerve to similar spinal segments.

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Grundy, L., & Brierley, S. M. (2018). Cross-organ sensitization between the colon and bladder: to pee or not to pee? *American Journal of Physiology-Gastrointestinal and Liver Physiology, 314(3), G301-G308.* *https://doi.org/10.1152/ajpgi.00272.2017*

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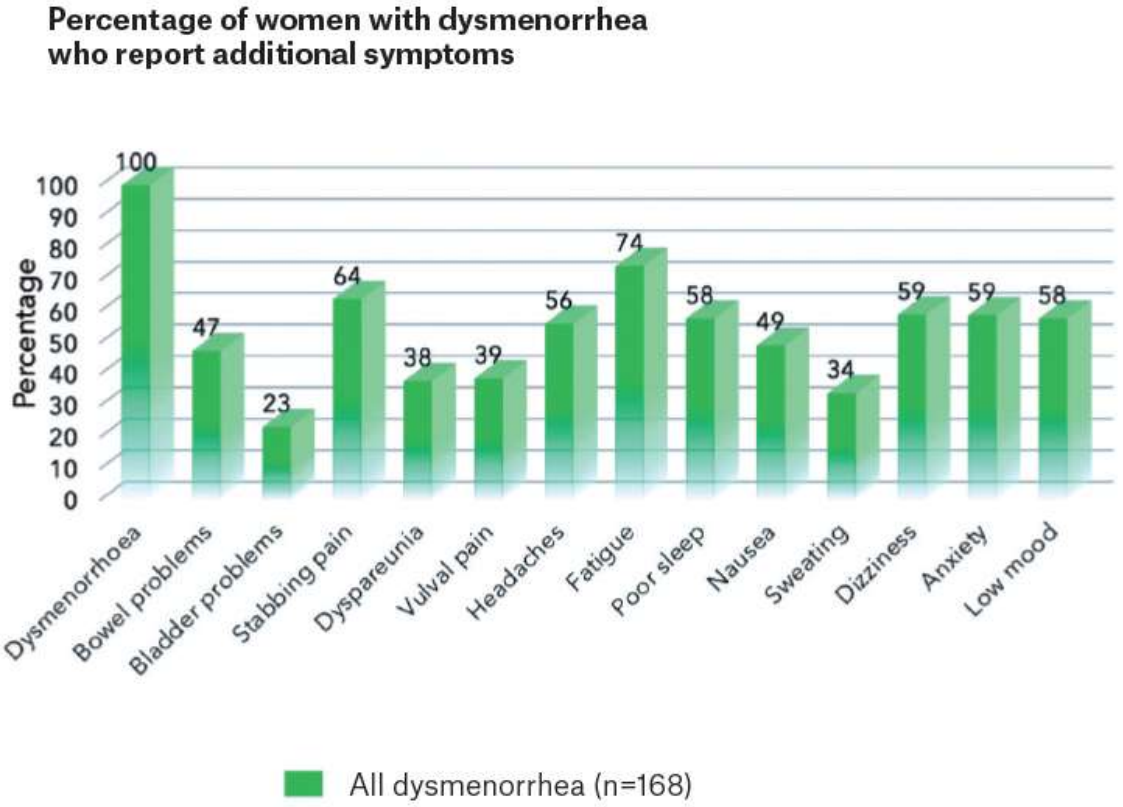
An example in PPP:



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Multidisciplinary Persistent Pain Clinics have demonstrated a strong link in reducing presentations to the Emergency Department

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- Reduction in ED presentations by 55%
- Reducing opioid use
- Improving quality of life
- Improving emotional and social support
- Improving long term management

Wilkinson R, Wynn-Williams M, Jung A, Berryman J, Wilson E. Impact of a Persistent Pelvic Pain Clinic: Emergency attendances following multidisciplinary management of persistent pelvic pain. Aust N Z J Obstet Gynaecol. 2021;61(4):612-5

Physiotherapists work alongside other key health professionals to improve downregulatory components of a sensitised nervous system

- **Combination of strengthening and stretching exercise**
- **Aerobic exercise**
- **Proprioceptive and body awareness**
- **Pain neuroscience education**

Trauma-informed and Collaborative care is central to the management of PPP.
Clear stats on trauma in PPP

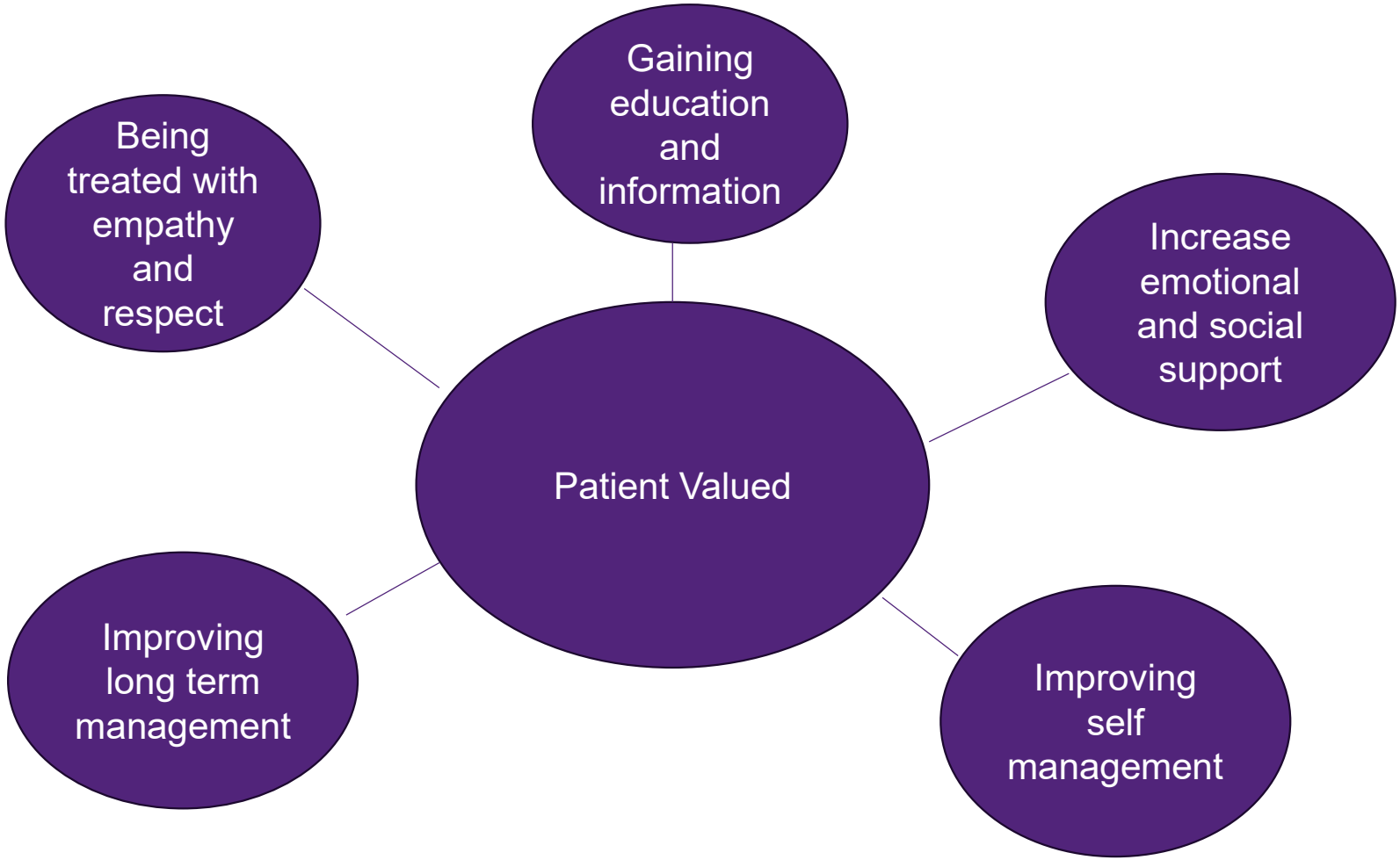
PSYCHOLOGY

PSYCHOLOGICALLY INFORMED PHYSIOTHERAPY

PAIN MANAGEMENT PROGRAMS

COLLABORATIVE SESSIONS WITH THE MDT

Patient's highly valued MDT management



Take Home Message

- **Understand the mechanisms of pelvic pain; pain from pelvic organs, musculoskeletal response to pain, central sensitisation and the psychological sequelae of the condition.**
- **Identify any unmanaged psychological or medical factors**
- **Identify any musculoskeletal or potential PF contributors**
- **Link patients in with a MDT clinic or key health providers including a women's health physiotherapist**
- **Encourage healthy and paced aerobic function**
- **Provide validation and trauma-informed care**
- **Promote proprioceptive, balance and body awareness with musculoskeletal treatment.**
- **Collaborate between disciplines to facilitate long term collaborative treatment strategies**

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