

Jean Hailes jeanhailes.org.au



What is pain?

"An unpleasant <u>sensory</u> and <u>emotional</u> experience associated with, or resembling that associated with, <u>actual</u> or <u>potential</u> tissue damage" (IASP 2020)

es for Women's Health | jeanhai

What is pain?

- Always a personal experience that is influenced to varying degrees by biological, psychological, and social factors
- Pain and nociception are different phenomena. Pain cannot be inferred solely from activity in sensory neurons
- Through their life experiences, individuals learn the concept of pain
- A person's report of an experience as pain should be respected
- Usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being

Jean Hailes for Women's Health | jeanhailes.org.au

Persistent pelvic pain (PPP)

'Pain in the area of the pelvis, present on most days for more than 6 months' (MEP 2000)

- Affects 15 25% of teens/women
- More prevalent than asthma or lower back pain
- Cost \$7.4 billion annually Australia (Petric Pain report 2011, Pain Australia, Anangari 2014)
- Uniquely challenging to treat multiple co-morbidities, fragmented care































































Nociplastic pain

Occurs when system exposed to ongoing noxious stimulus >3-6/12

increased synaptic activity (PNS/CNS)



Briggs E (2010)

Briggs E (2010)

Nociplastic pain Occurs when system exposed to ongoing noxious stimulus >3-6/12 increased synaptic activity (PNS/CNS) structural brain adaptations homunculus smearing amygdala

Jean Hailes for Women's Health | jeanhailes.org.au

Jean Hailes for Women's Health | jeanhailes.org.au

Jean Hailes for Women's Health | jeanhailes.org.au

Nociplastic pain

Occurs when system exposed to ongoing noxious stimulus >3-6/12

- increased synaptic activity (PNS/CNS)
- structural brain adaptations
- maladaptive changes in higher centre cognitive control areas
- → maladaptation of internal modulating influences - increased excitability/reduced inhibition



Briggs E (2010)

Nociplastic pain

Occurs when system exposed to ongoing noxious stimulus >3-6/12

- increased synaptic activity (PNS/CNS)
- structural brain adaptations
- maladaptive changes in higher centre cognitive control areas
- strengthening of normally ineffective synapses
 - low threshold stimuli also activate neural pathways

Jean Hailes for Women's Health | jeanhailes.org.au



Briggs E (2010)

Nociplastic pain

Occurs when system exposed to ongoing noxious stimulus >3-6/12 increased synaptic activity (PNS/CNS)

- structural brain adaptations
 maladaptive changes in higher centre cognitive control areas strengthening of normally ineffective synapses
- → low threshold stimuli also activate neural pathways inflammatory mediator release(microglia) /immune system involvement
- enhances response to noxious stimuli in amplitude, duration and spatial field



Briggs E (2010)

Nociplastic pain higher centre cogn control Occurs when system exposed to ongoing noxious stimulus >3-6/12 increased synaptic activity (PNS/CNS) Increased synaptic activity (PNs/CNS) structural brain adaptations maladaptive changes in higher centre cognitive control areas strengthening of normally ineffective synapses low threshold stimuli also activate neural pathways inflammatory mediator release(microglia)/immune system involvement enhances response to noxious stimuli in amplitude, duration and spatial field SENSTISTATION AMPLIFICTATION Briggs E (2010) Jean Hailes for Women's Health | jeanhailes.org.au







Jean Hailes for Women's Health | jeanhailes.org.au

PPP and endometriosis

PPP is:

- the most common clinical manifestation of endometriosis
- most common reason for referral to women's health service (Latthe 2006)



PPP and endometriosis

- Pain and endometriosis what do we need to consider?
- Pain symptom, causes, sequalae
- Nervous system may explain many endometriosis 'puzzles'
 - Discrepancy b/n disease burden & symptoms
 - Failure to respond to lesion focused treatment
 - Co-morbid pain conditions
 - Hypersensitivity to situational stimuli (noise, light, clothing, stress)























































The role for physiotherapy

Clinical Practice Guidelines for Diagnosis and Management of Endometriosis (RANZCOG 2021) state:

Interdisciplinary care may improve health outcomes and satisfaction





Physiotherapy and PPP

4 Components of PPP:

• nociceptive stimuli from pelvic organ(s) or other trigger

Jean Hailes for Women's Health | jeanhailes.org.au

- central sensitization of the nerve pathways
- the musculoskeletal response to pain
- the psychosocial sequelae of the pain condition

Physiotherapy and PPP

4 Components of PPP:

- nociceptive stimuli from pelvic organ(s) or other trigger
- central sensitization of the nerve pathways
- the musculoskeletal response to pain
- the psychosocial sequelae of the pain condition

BIOPSYCHOSOCIAL MANAGEMENT APPROACH



Explain pain – reconceptualise pain

- Pain neuroscience education reconceptualise pain
- Pain Education changes pain levels more than any other treatment modality
- Pain experiences and expectations affect pain
- Fear and uncertainty
 - \rightarrow Fear avoidance behaviour
 - → Kinesiophobia
- Understanding pain gives sense of control + empowers
- Neuroplasticity

Jean Hailes for Women's Health | jeanhailes.org.au

Explain pain - reconceptualise pain

- Pain validation: pain is always real
- Pain is always an output of the brain
- Pain ≠ tissue damage
- Pain doesn't need to be feared it's a protection or danger signal
- Can become overprotective eg car alarm
- Pain will decrease when the perceived level of threat to the tissues decreases
- Neuroplasticity NS circulatory constantly adapting based on experiences - offer hope (Swan 2006)

Down-regulate nervous system

- Pain neuroscience education (2007)
- Diaphragmatic breathing
- Management of anxiety/hypervigilance
- Mindfulness/meditation (Apps Smiling Mind/Curable/QENDO)
- Encourage activities that will make feel good
- General exercise
- Body scanning
- Sleep

Jean Hailes for Women's Health | jeanhailes.org.au

SMIL

 $[\infty]$







Pelvic floor (PF) dysfunction with PPP

- Inc prevalence of pelvic floor muscle and obturator internus spasm + increased tone (Dos Bispo 2016)
- Structural + biomechanical alterations (Rech 2021)
- Nociceptors in muscle and fascia local and referred pain (Roch 2021) . .
 - Changes to muscle function:
 - altered motor control

 - defect index control
 dyssynergia/poor co-ordination
 reduced ability to relax PFM (Mare 2017, Bo 2016)
 maladaptive habitual holding patterns
 PFM may contract involuntarily in response to threat/ vaginismus (Ven der Vede 2001)

Jean Hailes for Women's Health | jeanhailes.org.au

Screening for PF myofascial pain

- Pain on palpation of:
 - SIJ
 - ASIS -medial edge (insertion of iliacus)
 - Pubic symphysis cephalad edge
- Pain present at one or more external sites was significantly associated with pain of 4/10 or greater on internal palpation of PFMs

Jean Hailes for Women's Health | jeanhailes.org.au

Meister 2019

Consider referral to physio





The pelvic floor assessment

- Assess muscles and fascia
- Commonly see indrawn perineum, adductor spasm, vaginismus
- Palpate for increased tone/tenderness/tender points/pain
- Contract/relax/co-ordination slow, incomplete or staggered relaxation

- Post contraction incoordination, rebound contraction
- Referred pain



Other muscle involvement

- Abdominal muscle myalgia (Yosef 2016)
- +ve Carnett's sign
- Assess and treat other muscles around the pelvis



Pelvic floor treatment • Address pelvic floor muscle dysfunction Usually 'downtraining' exercises • Myofascial therapy Massage/Trainers/Wands • Biofeedback • Home program

Exercise and 'speed hump' Tool Kit

- · Address fear of movement/deconditioning
- Reduce fear avoidance •

 - get them moving!
 general exercise program
 - stretches pelvic, neural yoga (usually avoid Pilates)
- Pacing (avoid 'boom and bust' cycle)
- Pain Relief Tools
 - heat/cold
 - massage

Physio management Optimise bladder and bowel health Educate and give tools to address physical responses to sexual dysfunction Jean Hailes for Women's Health | jeanhailes.org.au

























































































Key messages 1

- Pain ≠ tissue damage
- Persistent pain can become the disease
- Pain is always an output of the brain
- A biopsychosocial approach to management is Gold Standard care
- Pain education changes pain levels more than any other treatment modality

Jean Hailes for Women's Health | jeanhailes.org.au

Key messages 2

- Validate pain + respect pain experience
- Listen and understand pain drivers
- Unpack over a few consultations
- Empower and increase self-efficacy with education and self management

Jean Hailes for Women's Health | jeanhailes.org.au

Always offer hope



Jean Hailes health	n professional w	ebinars	
* for health professional * for health professional Webbinars	Cours Causes of pelvic pain	ersistent pain: pain without nociception	
Jean Halles for Women's Health jeanhailes.org.au			





2022



Other resources

- Websites
 Pelvic Pain Foundation of Australia
- Pelvicpain rogau Lorimer Mosley TED talk <u>https://www.youtube.com/watch?v=gwd-wLdlHjs</u> Endometriosis Australia endometriosisaustralia.org
- .
- QENDO gendo.org.au
- Western Australia Pain Stories
- painhealth.csse.uwa.edu.au/pain-stories/ International Pelvic Pain Society
- pelvicpain.org/
- Pain Management Network https://aci.health.nsw.gov.au/chronic-pain
 - Jean Hailes for Women's Health | jeanhailes.org.au

Other resources

Explain Pain resources

- Noi Group noigroup.com
- . Noijam noigroup.com/noijam/
- Body in Mind bodyinmind.org •
- Pain Revolution painrevolution.org/

YouTube clips

- 'Tame the Beast'
- Explain Pain in 5 minutes
- . Why Things Hurt

Books/Apps - clinicians

- Explain Pain
- Explain Pain Supercharged

Books/Apps - patients

- Explain Pain Butler, Moseley
- Protectometer Butler, Moseley
- . Endometriosis and Pelvic Pain -
- Dr Susan Evans
- Painful Yarns Dr Lorimer Moseley

2022



References

- Briggs E (2010) Understanding the experience and physiology of pain. Nursing Standard. 25, 3, 35-30. doi: 10.748/hs2010.09.25.3.35 Veasely C, (2019) The Management of Chronic Overlapping Pain Conditions. Pract Pain Manag.:19(2). Machane S (2022). Endometriosa an orgoing pain. Step by Step Treatment J. Clin. Med. 11(2). 467: https://doi.org/10.3360/em11002467 https://www.ac.management.org. Messex, Met al. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic floor myoldscolar pain. American Journal of Obstetrics and Gynaecology. 222.256.41. https://doi.org/10.1016/j.acg.2018.11.1100 Statu J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic floor Machane S and J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic Floor Machane S and J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic Floor Machane S and J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic Floor Machane S and J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic Floor Machane S and J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic Floor Machane S and J. (2019) Development of a standardized, reproducible screening examination for assessment of Pelvic Floor Machane S and J. (2019) Development of a standardized in Women with Scause Pain. Journal of Social B and J. (2016) Advelopment of the Scause Pain J. (2016) Social B and J. (2016) Advelopment of the Scause Pain J. (2016) J. (2016)

Image source 1: https://www.ed.ac.uk/centre-reproductive-health/exppect-endometriosis/covid19-advice-nhs-lothian-endometriosis/covid19-alternative-ways-managing-pain