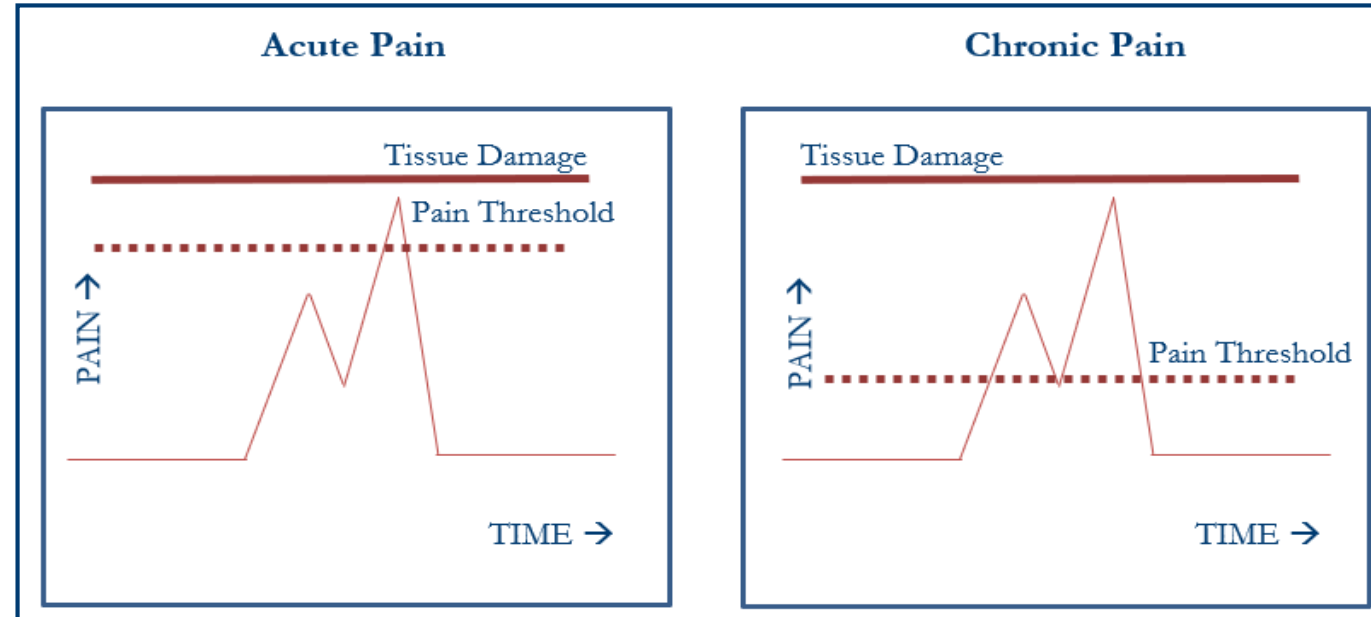


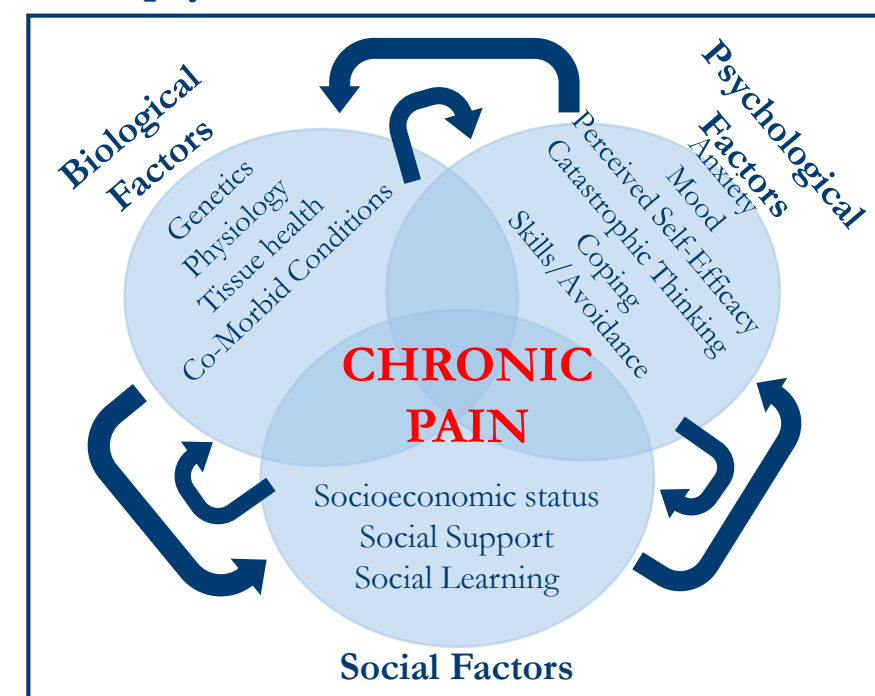
Introduction

- Chronic pelvic pain (CPP) is estimated to affect 14-24% of women during their reproductive years, and treated most effectively through multidisciplinary, biopsychosocial approaches
- Pain neuroscience education (PNE) is a biopsychosocial intervention that teaches patients with pain-related musculoskeletal conditions about the relationship between the nervous system and their pain
- Most studied in patients with chronic low back pain with limited research for CPP
- PNE has been shown to reduce kinesiophobia (fear of movement), pain catastrophizing (anxiously ruminating on pain), and self-perceived disability
- When PNE includes patient-led goal-setting and self-management strategies, it results in good outcomes for patients

How Pain Changes the Brain: Central Sensitization



Biopsychosocial Model of Chronic Pain



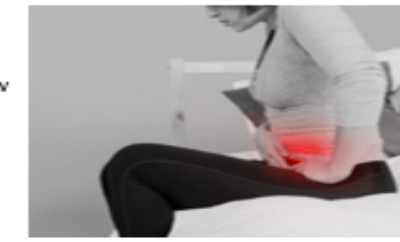
Methods

- A needs assessment conducted in the UR Center for Chronic Pelvic Pain and Vulvar Disorders in winter 2018 demonstrated the following patient interests:
 - A one-time multi-hour educational session focusing on their specific pelvic pain syndromes
 - Strategies to manage chronic pain, including psychological coping, general fitness, and nutrition
- Based on these results, a 3-hour multidisciplinary educational series was developed in partnership between the UR Center for Chronic Pelvic Pain and Vulvar Disorders, and the UR Center for Community Health and Prevention
 - First seminar in the series was scheduled March 2020 and focused on musculoskeletal pain. Patients being treated for this condition were invited to participate either via direct mailing or during their follow-up visits with their pelvic pain specialist.
 - An accompanying workbook was created with educational material contributed by physicians specializing in pelvic pain and sexual wellness, clinical psychologists, a women's health physical therapist, a dietician and an exercise specialist.

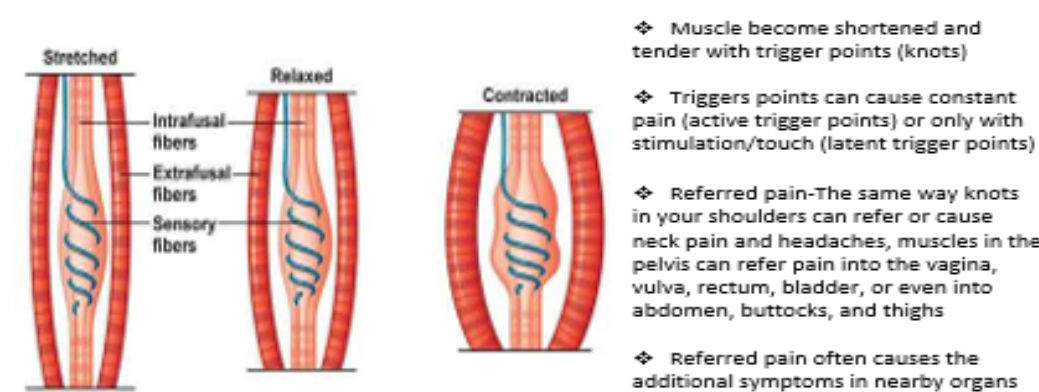
Workbook Excerpts

What symptoms does myofascial pelvic pain cause?

- Pain-often described as aching, heaviness, burning, sharp/stabbing, twisting
- Bladder-pain, frequency, urgency, hesitancy (slow start to stream), incomplete emptying, need to strain
- Bowel/intestinal-pain with bowel movements, frequent bowel movements, may contribute to constipation (or less commonly diarrhea)
- Dyspareunia-pain with sex or soreness after sex
- Often worsens over the course of the day
- Pain flares are common, often lasting for days at a time
- Symptoms tend to develop slowly and worsen over time



How do these muscles cause pain?



- Muscle become shortened and tender with trigger points (knots)
- Triggers points can cause constant pain (active trigger points) or only with stimulation/touch (latent trigger points)
- Referred pain-The same way knots in your shoulders can refer or cause neck pain and headaches, muscles in the pelvis can refer pain into the vagina, vulva, rectum, bladder, or even into abdomen, buttocks, and thighs
- Referred pain often causes the additional symptoms in nearby organs such as the bladder, bowel, vagina

Identify your goals for physical activity.

Write down 2 goals for being more physically active over the next month:

-
-

Create a plan.

To reach your goals, it may be helpful to set small goals along the way. Think of steps that are small and reachable, positive, under your control, and specific. For example: I'm going to go for a ½ hour walk after work on Monday, Wednesday, and Thursday.

Steps I will take to reach my goals for being more physically active:

-
-
-
-

Remember: Even our best plans sometimes need some tweaking. If you find that some of these steps aren't as small as you thought or if a strategy you're trying out isn't working, try something new. It probably took you trying more than once to find what works best for you with healthy eating- becoming more physically active - and living an active life - is no different!

How the Body and Brain Communicate About Pain



- Our body uses lots of signals to send information to our brain and then the brain adds meaning to those different signals.
- For example, if you haven't eaten recently and see your favorite food, your body will send various signals to your brain
 - you might start to salivate, your stomach might growl or feel empty
 - your brain interprets these signals to mean "I'm hungry," which might prompt you to eat

- When we feel pain, the brain is interpreting signals from the body to say, "I'm hurt."
- The purpose of pain is to be an alarm to alert and motivate the body to get out of danger or threat of danger.

Has your fire alarm ever gone off when you've burned something in the kitchen? The fire alarm cannot tell the difference between burned toast and a house burning down! It just goes off any time there is a possible threat; that is how it helps keep us safe.

Pain's purpose is the same: to alert us to a possible threat. Pain helps to protect the body from being hurt but by itself does not give us a lot of useful information. Just like the fire alarm, pain tells us something might be wrong, but not much else.

Acute vs Chronic Pain

- With acute pain or pain from situational trauma, like breaking your leg, the pain signal from the body serves its purpose of alerting the brain about danger/harm.
- The brain will help coordinate several protective responses to help the body heal.
- In addition to experiencing pain, you might walk differently, the leg could swell, and you might have an initial rush of adrenaline right after the injury.
- Once the injury is healed, the pain signals stop and the brain can stop the protective responses.

Original Study Design

Baseline measures prior to intervention:
Pain Interference
Pain Catastrophizing
Pain Acceptance

4-6 week follow up

Booster phone calls to patient to:
➤ Assess and problem solve barriers
➤ Increase adherence to self-identified goals and strategies

Brief Educational Seminar & Patient-Led Goal-Setting

2-3 month follow-up
Repeat measures:
Pain Interference
Pain
Catastrophizing
Pain Acceptance

Results

I learned new/different ways to manage my chronic pelvic pain.
I plan to use some of the strategies suggested in this handbook.
I have a better understanding of the causes of chronic pelvic pain.
The handbook was easy to understand.
I am confident I can use the suggested strategies on my own.
I have a better understanding of the treatment of chronic pelvic pain.

- Due to COVID-19 restrictions on social gatherings and the emphasis on social distancing, the in-person seminar was cancelled; patients who were registered for the seminar were provided with the workbook electronically
- Patients were asked to complete a patient satisfaction survey on the provided materials
- Once the seminar is held in person, brief measures assessing patient experience of pain severity and interference (BPI), pain catastrophizing (PCS), and pain acceptance (CAQH) will be sent to patients as outlined in the study design

Discussion

- Qualitative feedback gathered during the booster calls indicated some patients were making use of the strategies provided. Others had difficulty with goal-setting due to COVID-19.
- Preliminary survey results suggest patients found the workbook informative and easy to understand.

Acknowledgements

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