Fibromyalgia in medicine

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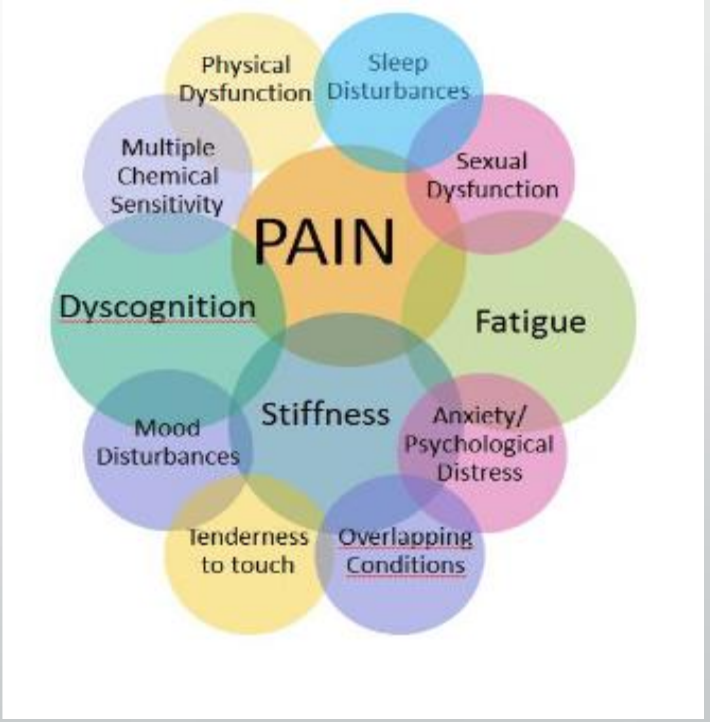
To be discussed…

8 minutes

- Why is this important
- Chronic pain concepts
- Diagnostic criteria

12 minutes

- Case Study- Interactive
- Management- Interactive



Why important

- ***Common***- 2-8% population
- **Certain populations more so:**

Hypothyroid 50-60%, ***Sjogrens*** 30%, ***RA*** 25%, ***SLE*** 20%, ***MS*** 20%, ***OA*** 10%

- **Associated with:** Poor sleep, fatigue

Medical: IBS, Migraine, CFS, TMJ, Bladder and Pelvic Pain Syndromes

Psychiatric: Depression, PTSD, GAD

Can also be difficult for the health professional

Chronic pain concepts

A disturbance of mind and body dualism:

- *No doubt changes in neuroplasticity*
- *?Somatic?*
- *?Wide spread sensitisation?*
- *?Top up, bottom down, both?*
- *I prefer the **sensitisation** theory, as I find it corresponds better with manifestations and management*

Peripheral Sensitisation

Increased hyperalgesia

Peripheral pain fibres

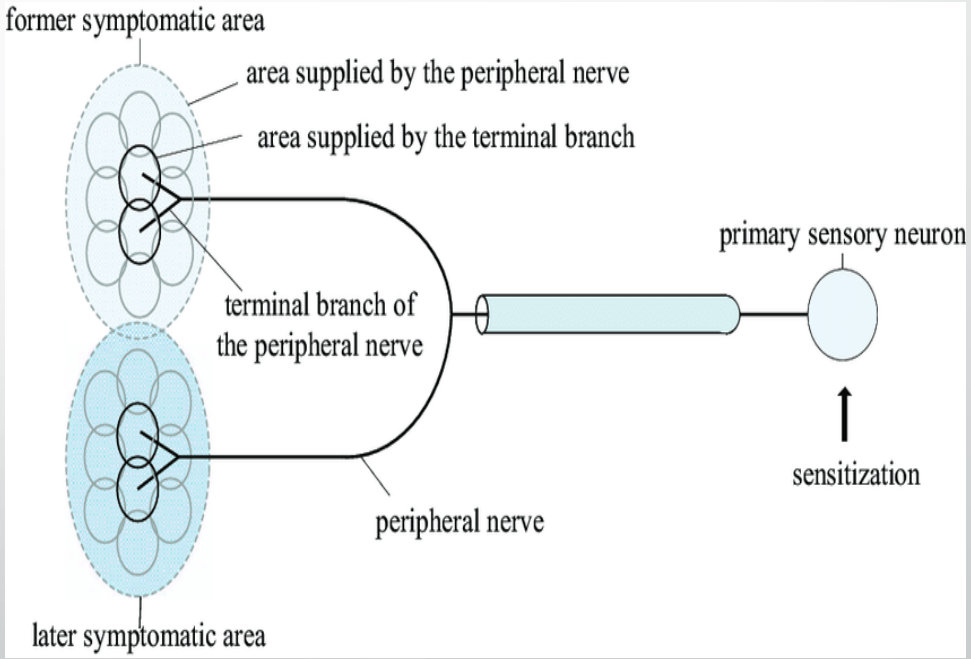
→Lower threshold

→More receptors

Increased allodynia (central aspects also contribute):

Recruitment of "silent nociceptors"

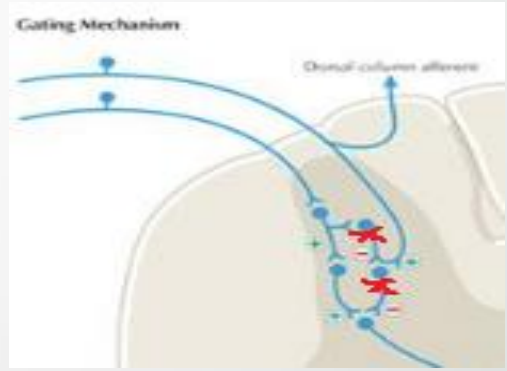
Equals- More nerves that are ready to fire

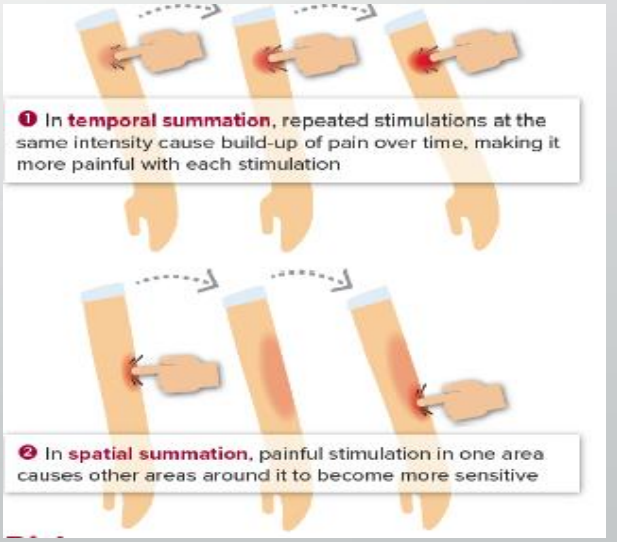


Central Sensitisation- Spine

- The spine is a **complex** system of gates
- **Many** messages to the brain, lots of them gated out.
- This balance is ***switched-*** More pain signals
- While second order neurons similar changes as peripheral nerves, this may also spread above and below signal→ **Pain spreading**
- Ongoing peripheral messages seems to drive this:

Temporal summation and spatial summation -> Wind Up





Central Sensitisation- Brain

Pain is interpreted in the brain:

- Sensory Input
- Pain appraisal + Emotional effect

→ Mediates interpretation of pain

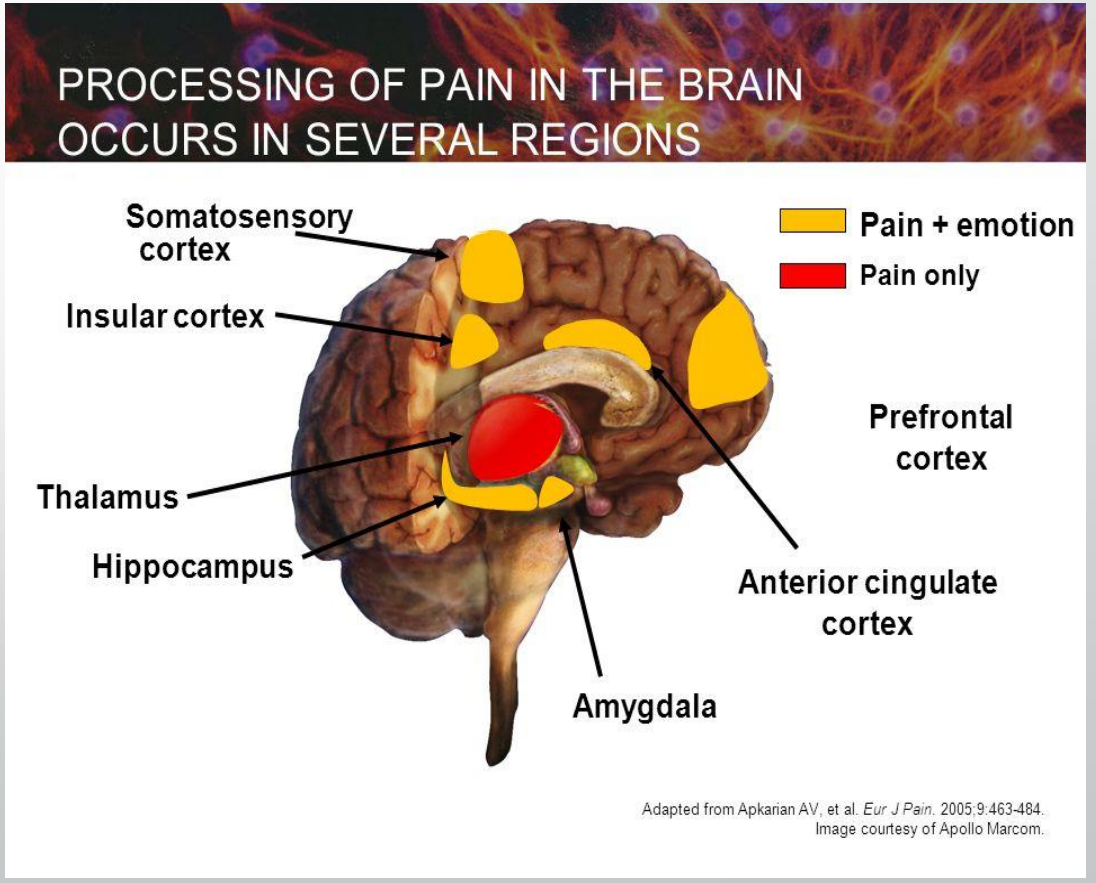
If emotional effect is increased:

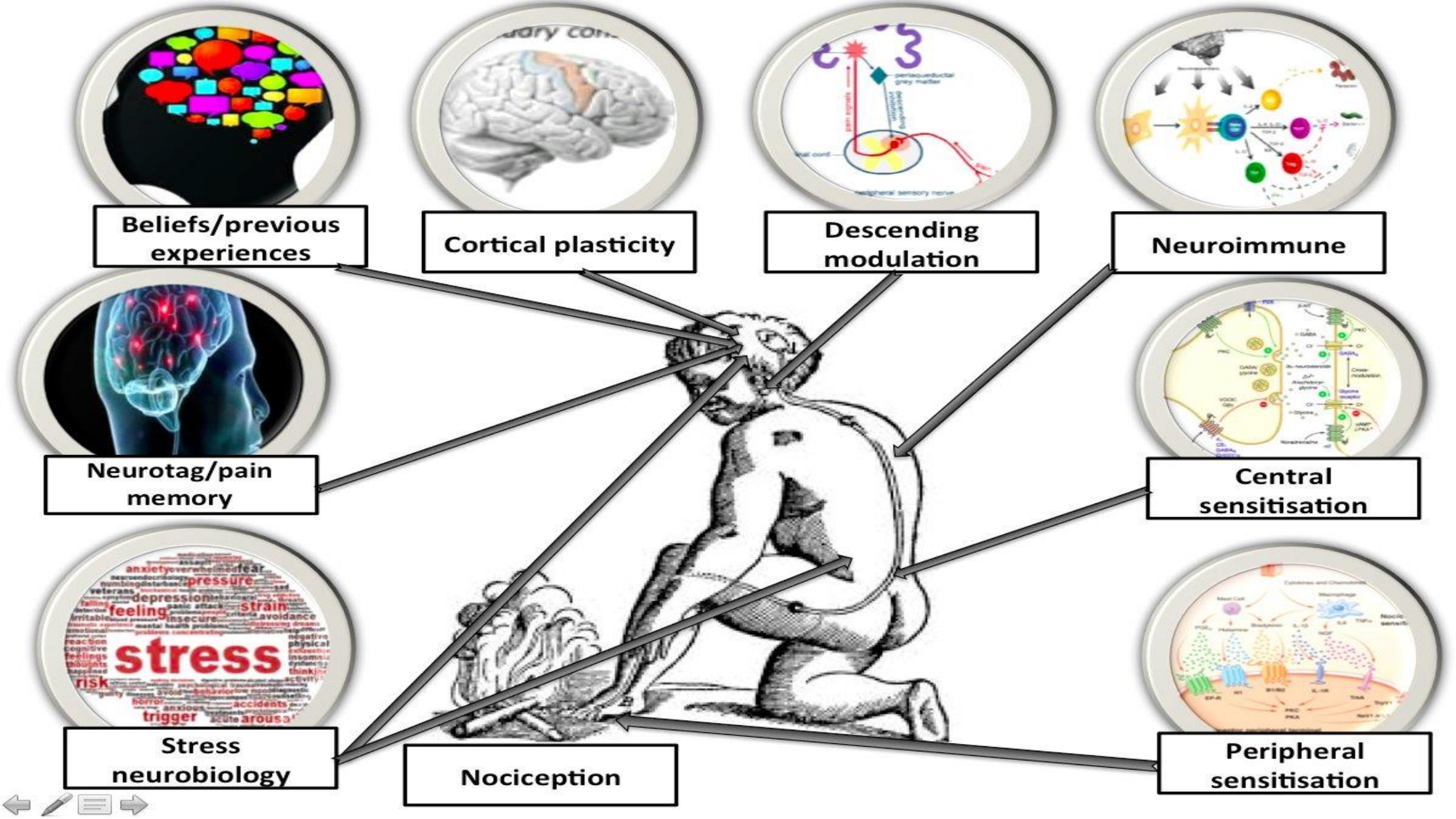
- ***Fear avoidance + Pain castrophising behaviours***

-Pain is ramped up

Reduces downward inhibition of signals

= **A positive pain loop**




Beliefs/previous experiences
Cortical plasticity
Descending modulation
Neuroimmune
Neurotag/pain memory
Central sensitisation
Stress neurobiology
Nociception
Peripheral sensitisation
periaqueductal grey matter
pain signals
peripheral sensory nerve
stress
anxiety
pressure
fear
depression
feeling
strain
insecure
avoidance
risk
trigger
accidents
horror
anxious

Fibromyalgia Dx

Widespread pain index (WPI) ≥ 7 and symptom severity scale (SSS) score ≥ 5 OR WPI of 4–6 and SSS score ≥ 9.

Symptom severity score

1-3 points each= Fatigue, Waking unrefreshed, Cognitive symptoms

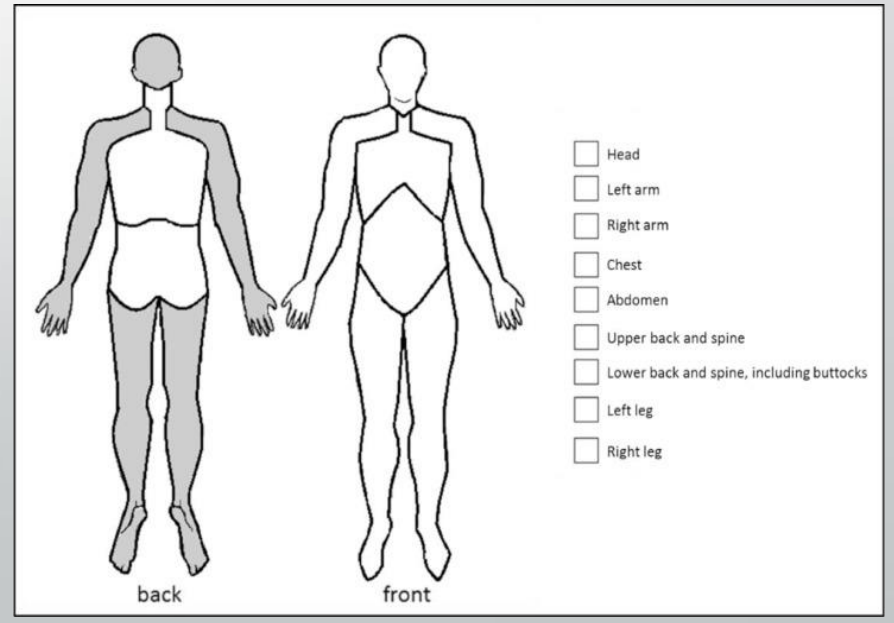
1 point= Headaches, Abdomen Cramps + Depression

Widespread pain index

Pain in at least 4-5 different points

Intolerant- Light, Sound, Smells, Medications

Some neuroautonomic instability- Flushing, paraesthesia, poor balance, weakness



Case study

Mrs F M

45,F

Worked as a nurse- has been on off for 6 mths due to a work related back injury

Still seeking compensation- undergoing a legal battle.

Lives alone- split from husband 5 years ago

Has 2 children- one lives in Melbourne, “rarely sees” one in Brisbane

HoPC

- Pain started when hurt lower back at work after picking up a fallen patient, felt a pop. She has bed bound for 2-3 weeks. Had localised discogenic pain which has now spread to arms and legs. Limits her mobility, now struggles to leave the house. Associated with myalgia, arthralgia. Has exertional fatigue, poor sleep and brain fog. Has also become sensitive to loud sounds, light and smells.

Red flags: Nil.

Orange flag: Depression/anxiety.

Yellow flags: Catastrophizing behaviour and fear avoidance.

Blue flags: Socially isolated.

Black flags: Seeking workers compensation.

Flag	Nature	Example
Red	Signs of serious pathology	Tumor, fracture, infection, cauda equinae
Orange	Psychopathology	Personality disorder, clinical depression, schizophrenia
Yellow	Beliefs, appraisals, judgements	Unhelpful beliefs about pain: indication of injury as uncontrollable or likely to worsen, expectations of poor treatment outcome, delayed return to work
	Emotional responses	Distress not meeting criteria for diagnosis of mental disorder, worry fear, anxiety
	Pain behaviours	Poor coping, avoidance of activities due to expectations of pain and possible reinjury, over-reliance on passive treatments (hot packs, cold packs, analgesics, accupuncture)
Blue	Pain perception and its relationship between work and health	Belief that work is too dangerous and likely to cause further injury, Belief that workplace coworkers or supervisors are unsupportive
Black	System or contextual obstacles	Legislation restricting options for return to work, conflict with insurance staff over injury claim, overly solicitous family and health care providers, heavy work, with little opportunity to modify duties

Background

- **Obese (BMI 35)**- Several unsuccessful attempts at weight loss
- **Depression/Anxiety**- On Sertraline
- **Back Pain-** Oxycodone 40mg bd (started 4 mths ago), Paracetamol- "Doesn't work", Ibuprofen PRN
- **Drinks:** 1-2 standard drinks a night
- **Current smoker:** Took up smoking again, distracts from pain.

Family Hx: Mum- failed back Sx, ended up in a wheelchair

Allergies/intolerances- Tramadol- dizziness, Pregablin- swollen legs.

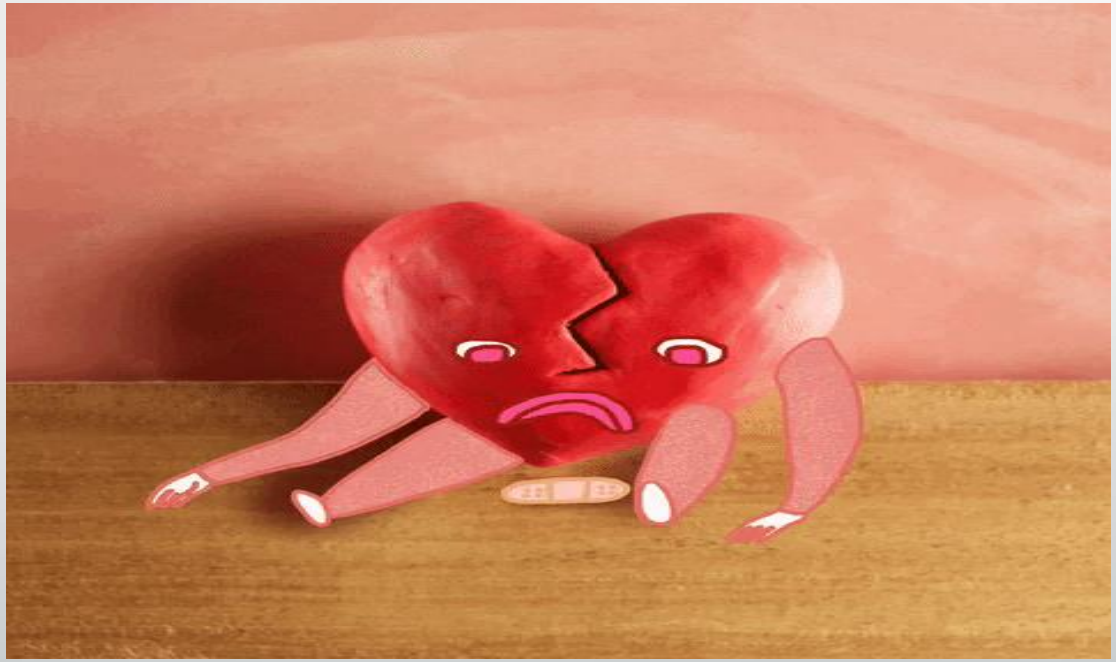
O/E

- Back movements reduced and stiff in all directions, bending forward the worst, paraspinal muscles stiff and painful to light touch.
- Skin mildy flushed and leaves white imprint on palpation.
- Painful over upper back, proximal arms and legs to light palpation with secondary throbbing.
- Teary after the examination.
- Nil features of an autoimmune disease. Lower limb neurology intact.

Ix

- **Imaging**: NAD
- **Bloods:** FBC, UEC, LFTs- NAD. CRP 10, ESR 22.
- **Immunology:** ANA 1:320 speckled, ENA- ve, RF- 22, Anti CCP negative, Anti-DS DNA –ve, HLA B27- negative.
- **Endocrine:** Hba1c: 5.2, TSH: 0.4.
- **Urine MCS-** Negative

Doc…what is wrong with me and can you fix it?



What are the issues here?

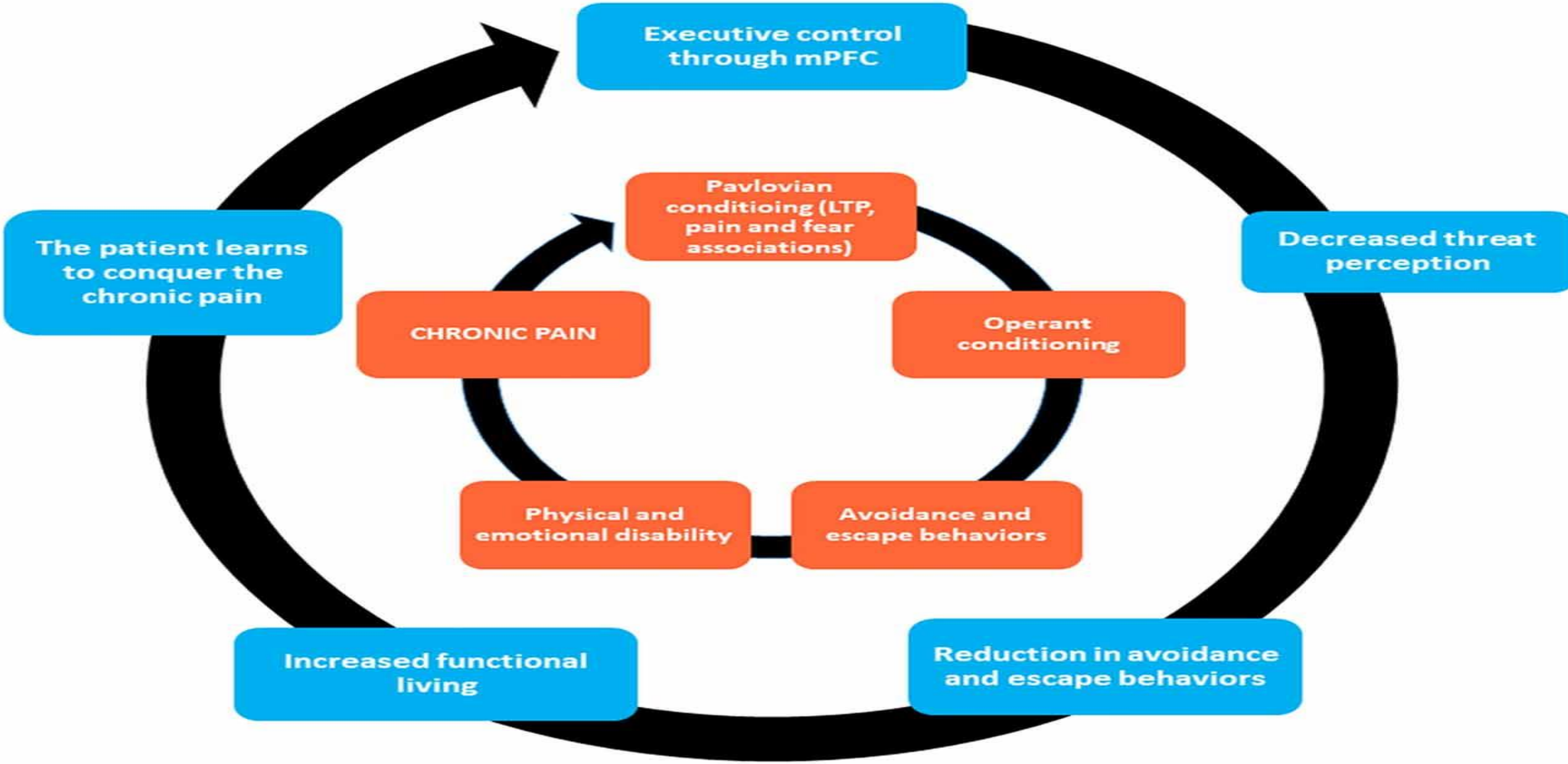
Issues

- **Pain-** FMR and Back Pain, Nil evidence for opiates.
- **Weight-** Likely contributing to both.
- **Poor activity-** Worsens pain, limits function.
- **Smoking-** Worsens pain.
- **Poor sleep-** Worsens pain and function. Etoh may worsen. ?OSA
- **Social isolation-** Worsens pain.
- **Depression/Anxiety-** Worsened by pain, makes pain worse.
- Unemployed and undergoing insurance compensation.

Management

Aims: Reduce Pain and Increase Function

RISK	Risks are uncertainties and can be both positive & negative. When risk events occur, they become "surprises."
ISSUE	Issues are obstacles, problems, or real concerns that are already hindering the progress of the project.
CHANGE	Changes are alterations resulting in deviation from previously agreed upon standards.



Development of chronic pain due to pain and fear associations

mPFC executive control that inhibits maladaptive pain and fear associations

Think of FMR Mx as Mind/body rehabilitation, use a multi-discinaplanry approach

Mind- Referral to psychologist

Educate- Reassure and acknowledge, refer to **Fibroguide**

Retrain behaviours- CBT

Addressing brain fog- Break up tasks, create routine, reduce distraction and clutter

Distract from pain- Mindfulness, Yoga/Tai Chai, biofeedback

Re-establish sense of self- Try engage in work or social activities, pacing

Restore Sleep- Sleep Hygiene, Melatonin trial, Reduce Etoh

Endep/Duloxetine can be useful (I'm less keen on Pregablin, especially with opiates)

Aim to wean opiates → OIH

Body- Referral to physiohtherapist/exercise physiologist

Weight loss- Calorie restriction, intermittent fasting.
Exercise- Hydrotherapy, Yoga (helps back), aerobic, paced strengthening
Correct posture
Change environment to aid
Wean opiates
Stop smoking

Doctor is there a role for Cannabis in FMR?

Cochrane Database of Systematic Reviews

Cannabinoids for fibromyalgia

Cochrane Systematic Review - **Intervention** | Version published: 18 July 2016 see what's new

https://doi.org/10.1002/14651858.CD011694.pub2

Am score 158 View article information

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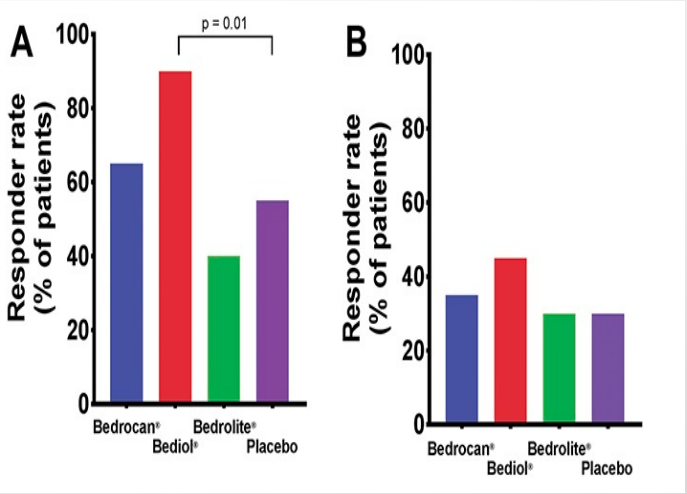
View authors' declarations of interest

Authors' conclusions

We found no convincing, unbiased, high quality evidence suggesting that nabilone is of value in treating people with fibromyalgia. The tolerability of nabilone was low in people with fibromyalgia.



Questions??