
Pain management: non-pharmacological and management

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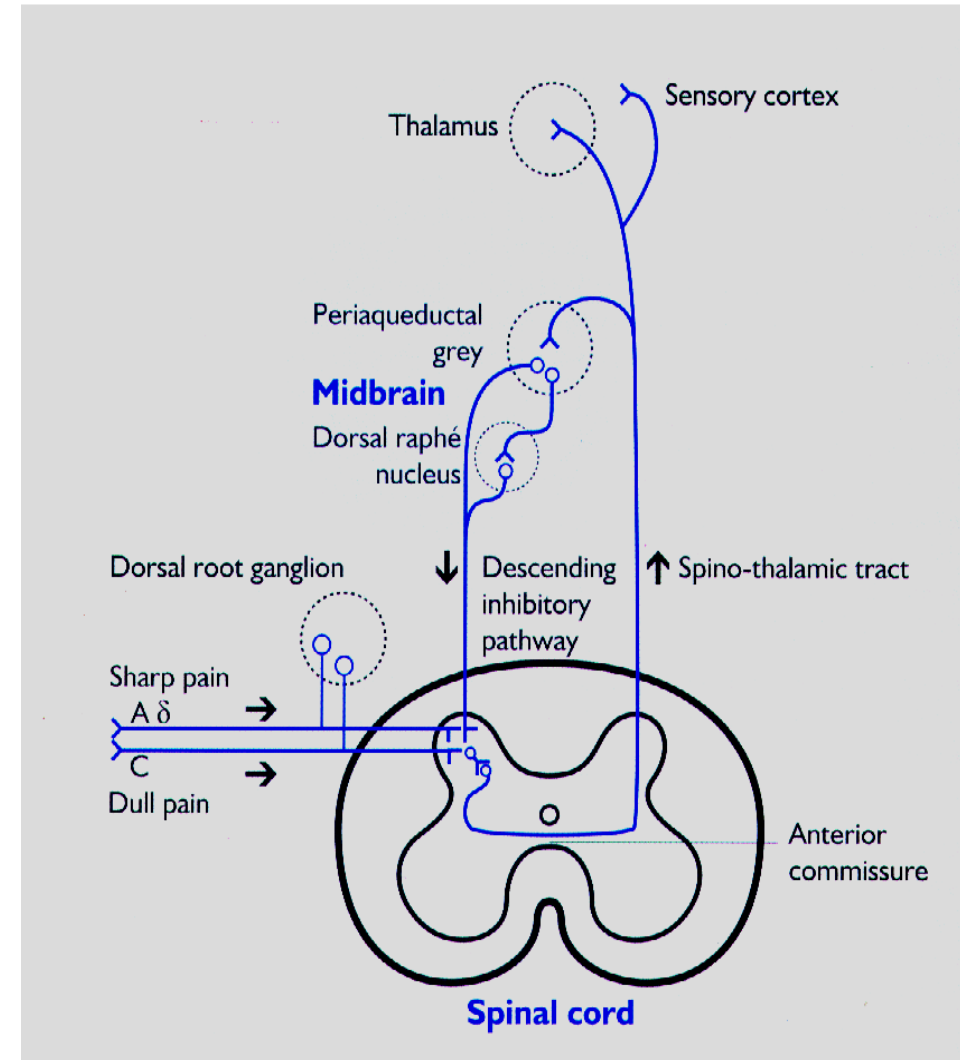


painaustralia™
working to prevent and manage pain

- EAG, *Safescript*, Victorian Dept. Health and Human Services
 - Advisory Committee, Drugs of Dependence, Victorian Dept. Health and Human Services
 - Advisory and educational activity for *mundipharma*, *Seqiris*, *Spectrum*
-

Pain: a multidimensional experience

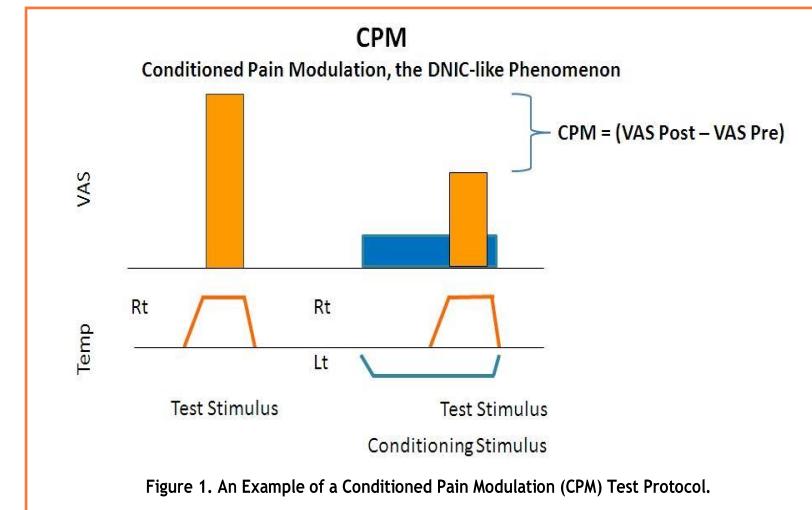
- **Clinical pain**
 - “*Nociceptive*” pain: structural
 - from tissue damage/stimulation
 - “*Neuropathic*” pain: nervous system damage
 - from nervous system pathology
 - Sensitisation (“*nociplastic*”) pain
 - up-regulation (training) of the nervous system
 - peripheral (transduction)
 - spinal (transmission)
 - supra-spinal/brain (perception)
 - down-regulation (modulation)
 - reduced descending inhibition implicated
- Most pain states have a degree of sensitisation
 - heightened sensations, emotion, meaning



Clinical pain

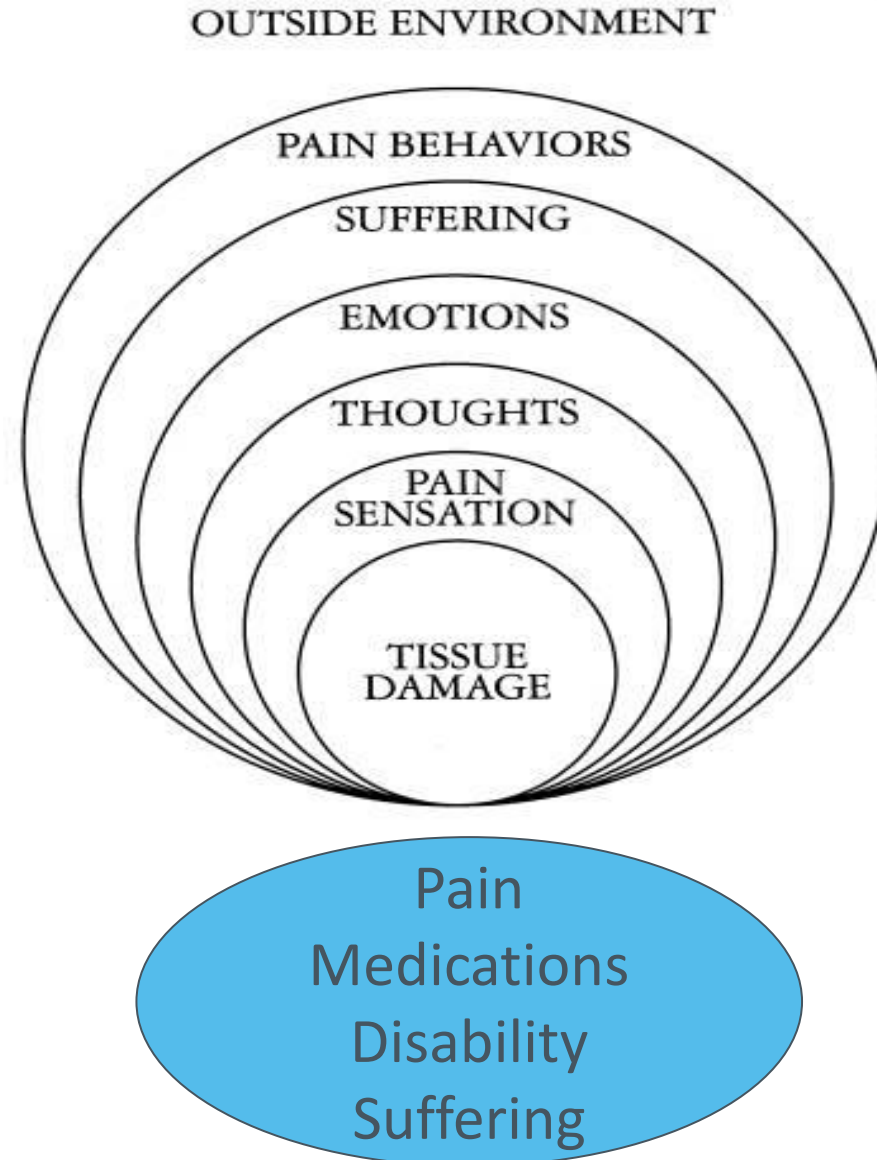
- Sensitisation
 - peripheral: inflammatory mediators, nerve changes
 - primary hyperalgesia
 - spinal cord sensitisation: up-regulation (NMDA, NOS, PG's, glia activation)
 - secondary hyperalgesia
 - supraspinal sensitisation: focus, synaptic change/re-organisation
 - ? tertiary hyperalgesia
- Behavioural change
 - sleep, mood, fear-avoidance, hyper-vigilance, social interactions
- Descending modulation
 - inhibition (e.g. CPM)
 - facilitation
- Catastrophising associated with \uparrow TS, \downarrow DINC
 - Yarnitsky D. *Pain* 2012; 153: 1193

Consider a persons nociceptive spectrum in assessing current pain



Effects of persistent/chronic pain

- Bio
 - hyper-algesia
 - concentration/cognitive
 - sleep disturbance
 - physical de-conditioning
- Psychological
 - mood disturbance
 - anxiety
 - health worries
- Social
 - decreased socialisation
 - carer stress
 - financial



Pain Assessment

- **Who is the person?**

- age, developmental history, medical conditions/medications, presenting pathology
- psychosocial status: depression, anxiety, pain appraisals

yellow flags: *psycho-social factors associated with increased risk of disability, distress*

- **What are the potential mechanisms?**

- nociceptive, neuropathic, “sensitisation” (nociplastic)
- pain site, character, radiation, ↑ factors

red flags: *clinical indicators of possible serious medical conditions (infection, #, Ca, etc)*

- **What is the impact?**

- biological, psychological, social

functional state: *ultimate goal is to restore/maximise function; multidimensional measurement required*

- **What is the expected/actual journey?**

- tissue recovery/injury
- social response/interactions

blue/black flags: *solicitous systems, including health care response*



**pain score or
comfort level?**

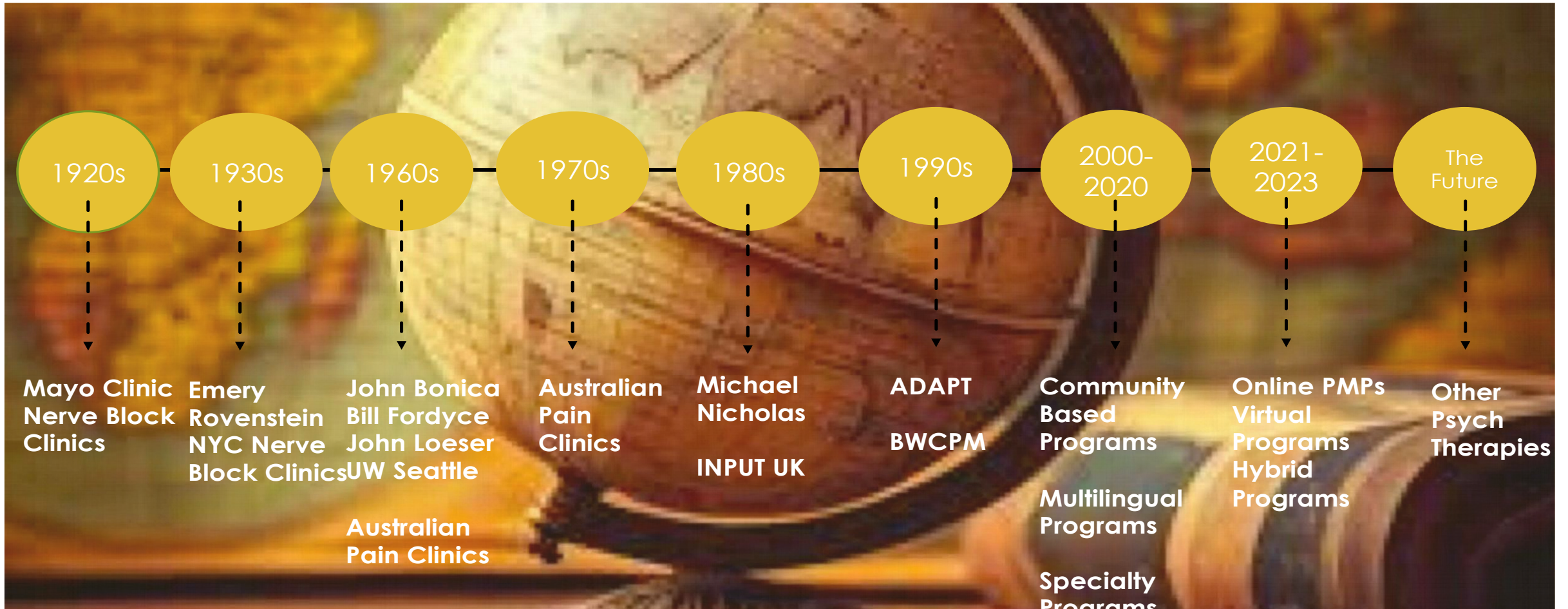
An approach to pain management

- Manage from a socio-psycho-biological perspective
- Patient education
 - include family, medical team → for **perception**
- Pharmacological
 - opioids, clonidine, LA's → for **nociceptive pain**
 - NSAIDs, biologicals, anti-oxidants → for **inflammation**
 - blocks/LA's, ketamine, Mg, clonidine, TCAD/SNRI, GBP → for **neuropathic, sensitisation**
 - ? medical cannabis → for ? **perception**
- Non-pharmacological → for **nociceptive, neuropathic and sensitisation components**
 - neuromodulation e.g. spinal cord stimulation
 - physical rehabilitation, re-exposure, desensitisation strategies
 - psychology assessment/management
 - education, cognitive re-appraisals, acceptance, mindfulness
 - social
 - judicious support, lessen solicitation, legal (? need for apology)



Allied Health Based pain management programs

- Evolution over time, with exploration of link between pain and disability, impairment
- Focus on catastrophizing, fear avoidance, low self efficacy as part of negative feedback/cycle



Pain Management Programs – Which Patient for Which Program?

- Interdisciplinary pain management programs
 - “ready-ness” to change: pain management rather than pain reduction
 - identify barriers
 - pain cognitions
 - solicitous spouse/compensation/legal/health systems
- Goals include cognitive restructure, function, less HCU
 - education: 1-6 hrs
 - low intensity: 6-24 hrs
 - medium intensity: 24-60 hrs
 - high intensity: 60-120 hrs
- Community delivered allied health programs reduce wait times
 - [Davies S. Pain Med 2011; 12: 59](#)



Provision of Pain Management Programs

- RNSH ADAPT program
 - Preparation
 - Medication reduction/withdrawal
 - CBT principles
 - Intensive, group, follow-up
 - Family engagement: solicitous systems
 - Evidence base
 - Adherence required for long term benefit

Barbara Walker Centre Pain Management

MAPP – MY Active Pain Plan

A one off one day workshop for people whilst on waiting list (after triage / before assessment)

PEP – Pain Education Program

4 weeks x 2.5 hours Tuesdays

Reactivate and Hydrotherapy

Gain confidence in movement, activity and getting back into exercise

START

3 week intensive pain management program: Mon to Fri 9am to 5pm

EJP 2014
European Journal of Pain

ORIGINAL ARTICLE

Cognitive exposure versus avoidance in patients with chronic pain: Adherence matters

M.K. Nicholas¹, A. Asghari^{1,2}, L. Sharpe³, A. Brnabic⁴, B.M. Wood¹, S. Overton¹, L. Tonkin¹, M. de Sousa¹, D. Finniss¹, L. Beeston¹, A. Sutherland¹, M. Corbett¹, C. Brooker¹

Practicalities

- Assessment/outcome measures
 - Stages of change
 - EPPOC
 - Brief Pain Inventory
 - DASS-21
 - Pain catastrophizing
 - Pain Self Efficacy
 - Roland Morris Disability
 - PROMIS-29
 - Incorporate interference, sleep, function

- Severity dictates PMP
 - Pain education, engagement process

Scoring and Interpreting. PROMIS 29+

Enter the person's raw domain score total, then circle the range that represents the person's score.

Record the person's Name:				Date:	
Your name:			Proxy: yes/no who?		
Domain	Persons Domain Score Total	Acceptable/mild	Moderate concern	Significant concern	ACTION?
1. Physical Function		15-20	7-15	4-6	
2. Ability to participate in social roles/activities		10-20	5-9	4	
3. Cognitive Function Abilities		5-10	3-4	2	
4. Anxiety		4-10	11-15	16-20	
5. Depression		4-10	11-16	17-20	
6. Fatigue		4-13	14-18	19-20	
7. Sleep Disturbance		4-15	16-19	20	
8. Pain Interference		4-11	12-18	19-20	
9. Pain Intensity		0-4*	5-6	7-10	

Allied Health

- Principles
 - assess and engage client in self-management approach
 - target unhelpful cognitions and behaviours
 - optimise physical-psycho-social function
- Pain Management Programs
 - education on neurophysiology and impact of pain
 - individual sessions targeting specific issues
 - CBT: cognitive restructuring, ↑ self efficacy, relaxation, anxiety management
 - PT: posture, gait/movement, fitness
 - OT: domestic and social ADL, occupational
- Combination: yoga (mindfulness), Tai Chi, pilates

Psychological constructs

Negative Coping strategies

- catastrophising

Fear-Avoidance behaviour

- fear pain aggravation, so avoid

Self-Efficacy, Locus of Control

- belief in ability to perform, control

Sollicitous systems

- family, health care, compensation

? personality traits

Multi/Inter-disciplinary Pain Management programs

- Group vs Individual
 - co-ordinated program with PT/CP/OT/medical +/- SW, RTW
 - directed to self management of pain: moderate effect size
 - [Du S. Patient Educ Couns 2017; 100: 37](#)
- Themes
 - graded exposure (>graded activity)
 - targets fear-avoidance
 - [Lopez-de-Uralde-Villanueva I. Pain Med 2016; 17: 172](#)
 - pacing: tackle boom-bust cycling
 - OT to compliment with energy techniques
 - cognitive restructure
 - challenge catastrophic beliefs, increase self-efficacy
 - target solicitous systems
 - family therapy in adolescent pain
- Evolved over time: exercise → CBT → ACT/mindfulness
 - [Lewis G. Pain Practice 2019; 19: 767](#)



Pain Management Programs – Which Patient for Which Program?

A guide for NSW Tier 3 and Tier 2 public health facilities providing pain programs



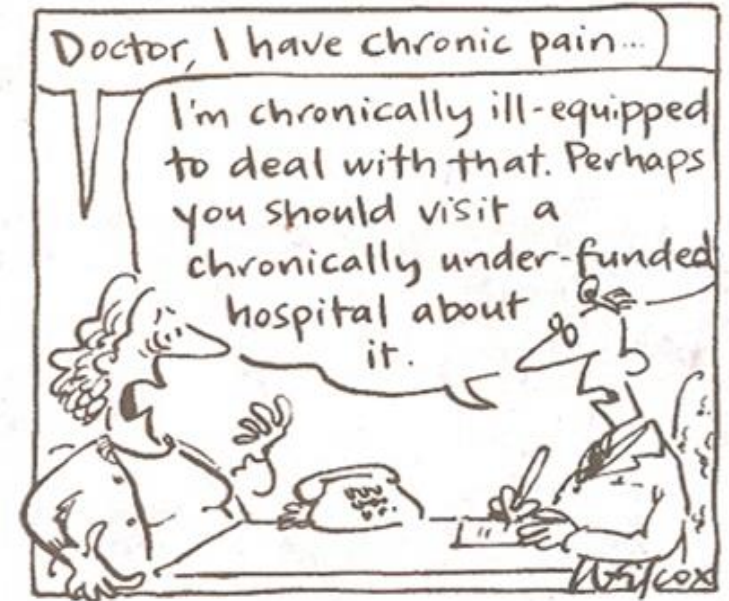
Multi/Inter-disciplinary Pain Management programs

- CBT > physical alone; best results together in chronic low back pain
 - Pts understanding of pain perception, active coping, problem solving,
 - Yang J. *Pain Research Management* 2022; ID 4276175
 - Cognitive Functional Therapy: interview, personalized exercise exposure +/- biofeedback
 - Kent P. *Lancet* 2023; 401: 1866
- Acceptance-commitment behavioural approach
 - Seeks flexibility, not targeting distress or cognitions per se
 - Graham CD. *Clin Psychology Review* 2016; 46: 46
 - Volve K. *J Pain* 2022; 21: 529
 - Mindfulness: cortical control
 - Yoga, Tai Chi: motor planning activation
 - Cramer H. *Clin J Pain* 2013; 29: 450
- Online pain management programs possible but smaller effect size
 - Chew MT. *Pain Practice* 2023; 23: 664
 - <https://www.healthdirect.gov.au/chronic-pain-course-online-program>
 - <https://thiswayup.org.au/programs/chronic-pain-program/>
 - <https://www.mqhealth.org.au/about/stories/chronic-pain-relief-with-online-clinic>



Comments/questions

- Waiting in pain
 - >6 mth wait associated with symptom progression, function ↓
 - Median wait time for pain clinic 60 days
 - large variability, rural > city, public >> private
 - telehealth availability improving
 - [Hogg M. Pain Medicine 2020; doi 10.1093](#)
- National Facility Directory
 - <https://www.painaustralia.org.au/getting-help/pain-directory>



Brain man videos

<https://www.youtube.com/watch?v=5KrUL8tOaQs>

Tame the beast video

<https://www.tamethebeast.org>

Pain toolkit

<http://www.paintoolkit.org>