

Is chronic pain an anxiety disorder?

The role of anxiety in the development and persistence of pain

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Aims

- Explore the nature of chronic pain
- Examine the way in which anxiety contributes to the onset and maintenance of chronic pain
- How anxiety is relevant to the management of chronic pain
- Implications for anxiety practitioners

What is chronic pain?

- Pain:
 - Pain is always subjective
 - Pain is multidimensional
 - is MORE than nociception (activity in the nervous system generated by noxious stimulus)
 - is a conscious experience
- Duration of greater than 3 months: persisted beyond normal tissue healing time

Epidemiology of chronic pain

- 17-20% of adults in Australia report chronic pain (Blyth et al, 2001)
- Low back pain (LBP) single leading cause of years lived with disability worldwide (Vos et al, 2012)
- One year remission rates for LBP range from 54-90% (Hoy et al, 2010)
- Most people go on to have recurrent LBP (Hoy et al, 2010)

Risk factors

- Older age
- Lower level of education
- Unhelpful illness behaviours
- Poor social support
- Accumulating 'load' eg numerous sites of pain, other physical symptoms
- Depression
- Anxiety

Economic costs

- Chronic pain is the leading cause of work productivity lost
- Direct costs
 - Medical treatment
 - Transport
 - Household help
 - Re-training

Economic costs

- Chronic pain is the leading cause of work productivity lost
- Direct costs
- Indirect costs
 - Disability benefits or government support
 - Loss of productivity
 - Worker's compensation costs

Economic costs

- Chronic pain is the leading cause of work productivity lost
- Direct costs
- Indirect costs
- In Australia estimated at \$20 billion annually

Why should you care?

- If plan to specialise in relevant areas
- And if not....
 - Prevalence, and changing demographics, suggests you'll see people with chronic pain related issues
 - Comorbidity with mental health problems means likely to be over-represented in our consulting rooms
 - Schemes like [National Disability Insurance Scheme](#) will increase access

Chronic pain and psychological disorders

- Depression
- Anxiety disorders
 - PTSD
 - Panic disorder
 - Social anxiety

(Asmundson & Katz, 2009; Demyttenaere et al, 2007; Gerrits et al , 2012; Gerrits et al, 2014; Pinheiro et al, 2016; Williams & Schäfer, 2016)

Anxiety-related psychological processes and pain

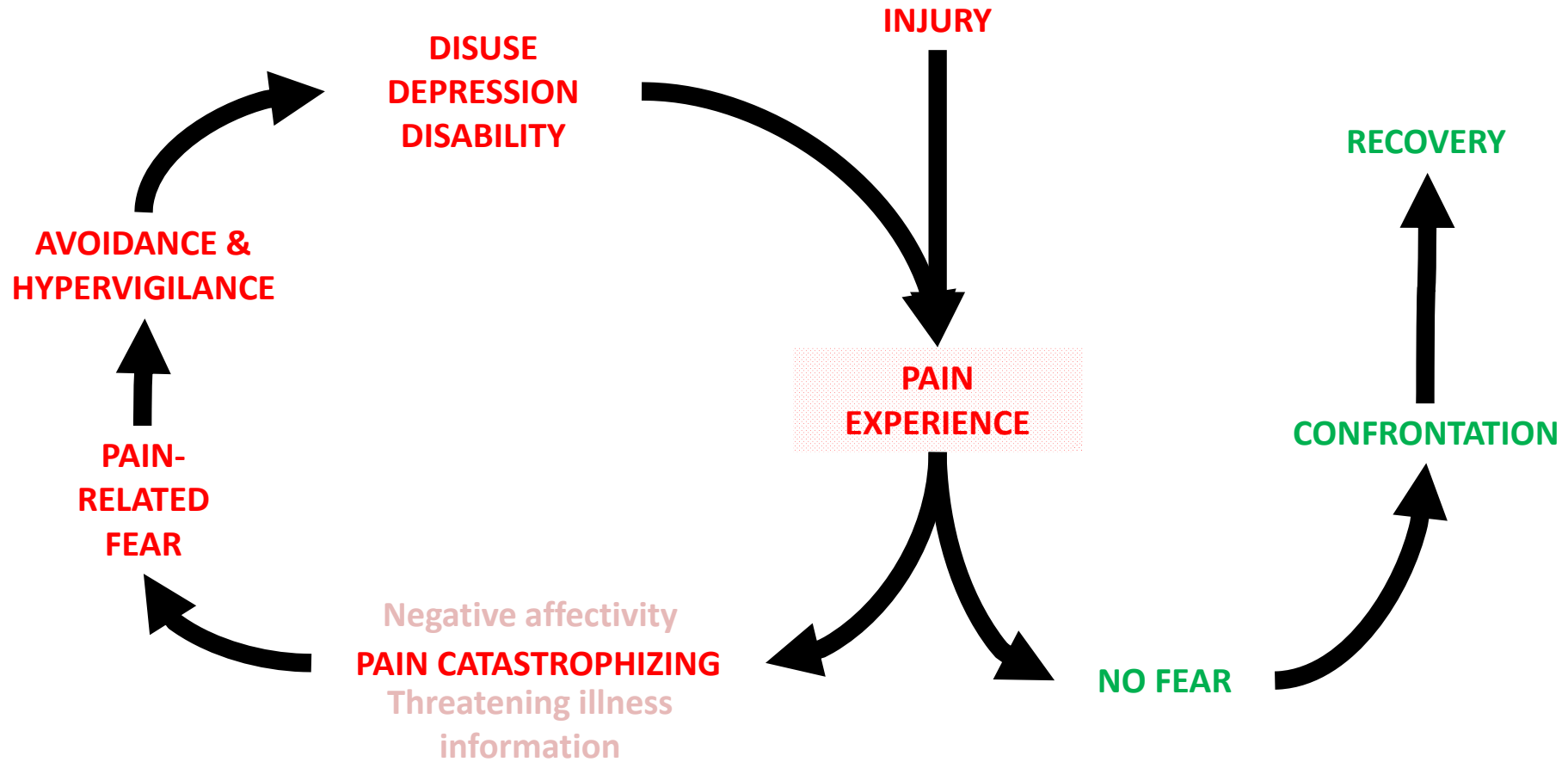
- Pain catastrophising

(Leung, 2012)

Anxiety-related psychological processes and pain

- Pain catastrophising: ‘taken together... a set of exaggerated and ruminating negative cognitions and emotions during actual or perceived painful stimulation’ (Leung, 2012 p 204)

FEAR-AVOIDANCE MODEL



Avoidance

Confrontation

(Vlaeyen et al, 1995)

Anxiety-related psychological processes and pain

- Pain catastrophising
- Anxiety sensitivity: 'a fear of arousal-related sensations arising from the belief that these sensations will have catastrophic physical, psychological and/or social consequences' (Olthuis et al, 2015 p. 423)

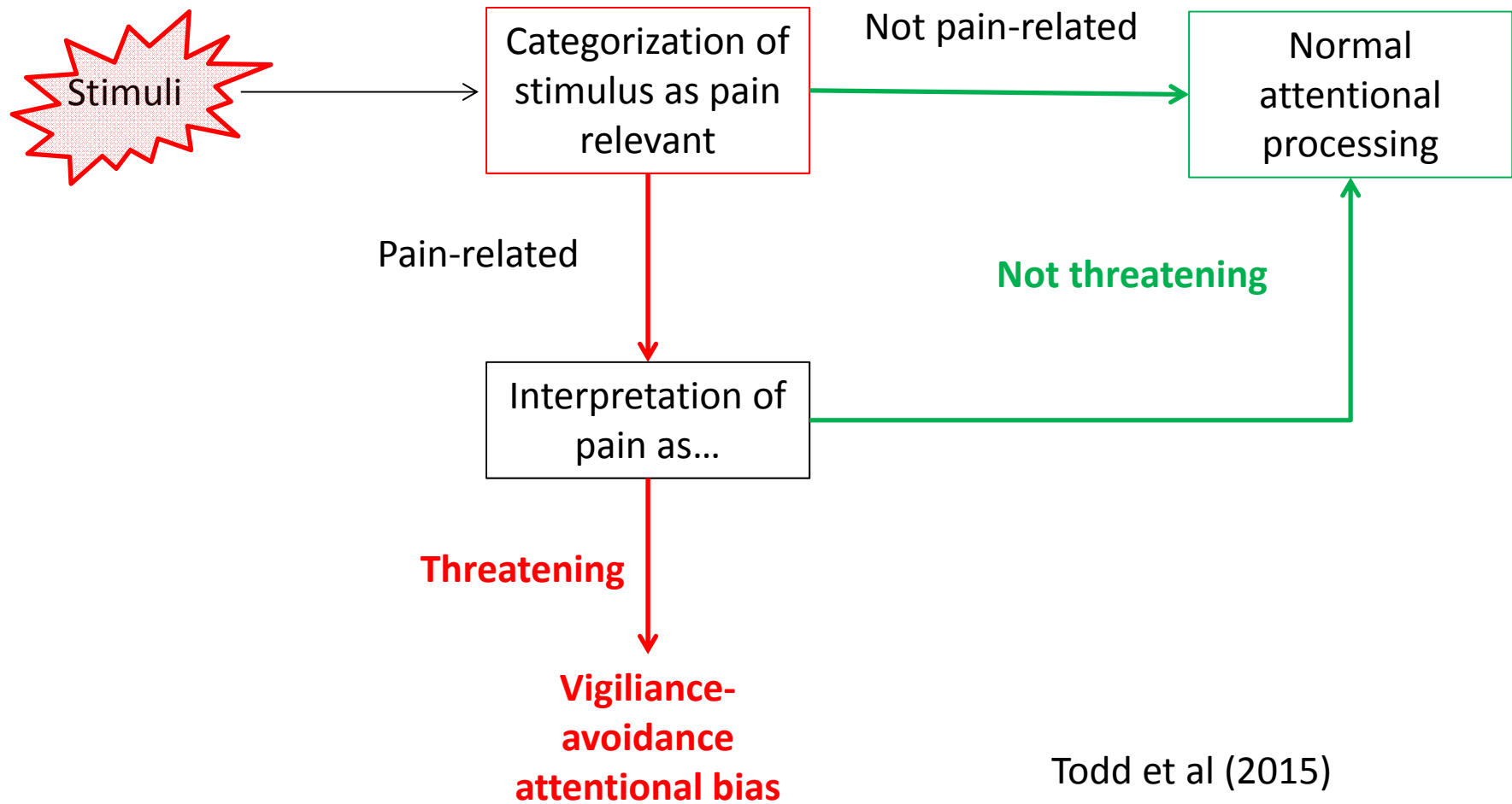
(Leung, 2012; Olthuis et al, 2015; Turk, 2002; Vlaeyen et al, 1995)

Anxiety-related psychological processes and pain

- Pain catastrophising
- Anxiety sensitivity
- Attentional biases: ‘Pain is known to capture attention... broad assumption is that when people are in pain and are highly fearful or threatened by the pain, they overattend to pain-related stimuli’ (Todd et al, 2015)

(Leung, 2012; Olthuis et al, 2015; Todd et al, 2015; Turk, 2002; Vlaeyen et al, 1995)

Threat Interpretation Model



Psychological treatment of chronic pain

- Most common approach is cognitive behavioural therapy

CBT strategies

- Psychoeducation regarding pain
- Goal-setting
- Activity pacing
- Problem-solving
- Thought challenging
- Relaxation & desensitization
- Communication & assertiveness skills
- Graded exposure to feared activities
- Flare up management planning
- Relapse plan

Psychological treatment of chronic pain

- Most common approach is cognitive behavioural therapy
- Compared to other treatments effectiveness demonstrated in terms of quality of life and health care costs, but not established in terms of work participation
- Treatment effectiveness may be affected by presence of anxiety disorders

(Pike et al, 2016; Richmond et al, 2015; Wurm et al, 2016)

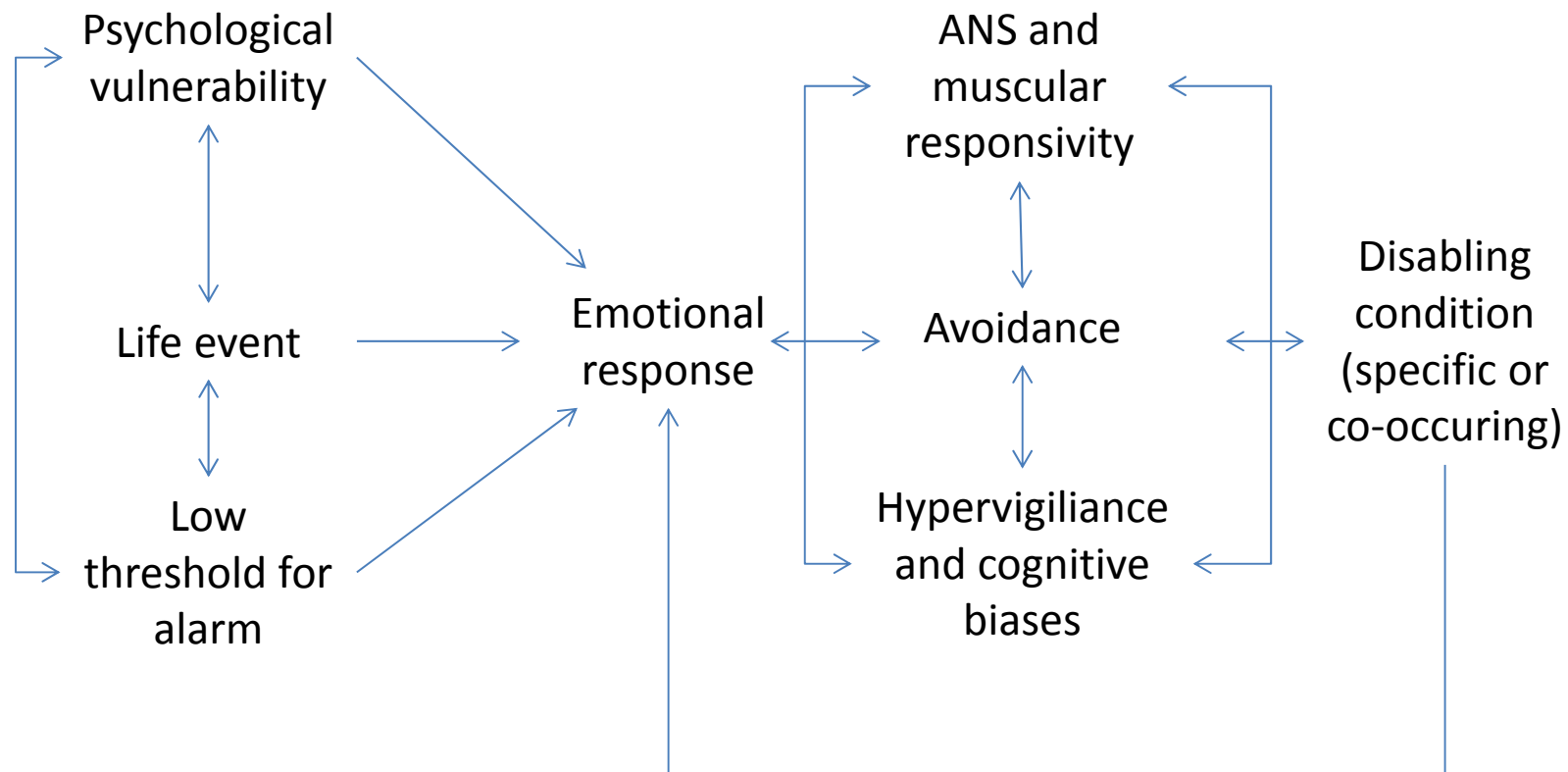
Transdiagnostic approaches

Great deal of attention currently given to transdiagnostic approaches:

- Cognitive-behavioural, interpersonal and biological processes
- Shared across multiple disorders
- Causally contribute to onset, maintenance, recurrence and recovery

(Watkins, 2015)

Shared vulnerability model



After Asmundson and Katz, 2009 p. 893

Applying transdiagnostic approaches to chronic pain

- Potential impact on pain-related fear of targeting anxiety-sensitivity
- Transdiagnostic approaches have been evaluated:
 - Online
 - With adolescents with chronic pain

(Allen et al, 2012; Buhrman et al, 2015; Dear et al, 2013; Olthuis et al, 2015)

Unified Protocol for the Treatment of Emotional Disorders in Youth with Pain (UP-YP)

- Flexible, modular-based individual treatment protocol
- 8 – 21 50-minute sessions over 6 months
- Core content covers:
 - Psychoeducation and emotional and pain
 - Awareness of emotions and pain
 - Flexibility in thinking
 - Modifying emotion-driven behaviours through exposures
 - Treatment review and relapse prevention

(Allen et al, 2012)

Where to from here....?

- What does this mean for your:
 - Assessment?
 - Conceptualisation?
 - Treatment?

Assessment measures

Number of standardised measures:

- Brief Pain Inventory (BPI)
- Pain Catastrophising Scale (PCS)
- Pain Self-Efficacy Questionnaire (PSEQ)

Resources

NSW Health Pain Management Network
resources:

- [General resources](#)
- [Paediatric pain resources](#)
- Specialist resources for [Spinal Cord Injury Pain](#)

References

- Access Economics. (2007). The high price of pain: the economic impact of persistent pain in Australia. Sydney: MBF Foundation.
- Allen, L. B., et al (2012). A unified, transdiagnostic treatment for adolescents with chronic pain and comorbid anxiety and depression. *Cognitive and Behavioral Practice, 19*(1), 56-67.
- Asmundson, G., & Katz, J. (2009). Understanding the co-occurrence of anxiety disorders and chronic pain: state-of-the-art. *Depression and Anxiety, 26*(10), 888-901.
- Blyth, F. M., et al. (2015). Chronic disabling pain. A significant public health problem. *American Journal of Preventive Medicine, 49*(1), 98-101.
- Dear, B. F., et al (2013). The Pain Course: A randomised controlled trial of a clinician-guided Internet-delivered cognitive behaviour therapy program for managing chronic pain and emotional well-being. *Pain, 154*(6), 942-950.
- Demyttenaere, K., et al. (2007). Mental disorders among persons with chronic back or neck pain: Results from the world mental health surveys. *Pain, 129*(3), 332-342.
- Gerrits, M. M. J. G., et al. (2012). Impact of pain on the course of depressive and anxiety disorders. *Pain, 153*(2), 429-436.
- Gerrits, M. M. J. G., et al. (2014). Pain and the onset of depressive and anxiety disorders. *PAIN®, 155*(1), 53-59.
- Leung, L. (2012). Pain catastrophizing: An updated review. *Indian Journal of Psychological Medicine, 34*(3), 204-217.
- Olthuis, J. V., et al (2015). The nature of the association between anxiety sensitivity and pain-related anxiety: evidence from correlational and intervention studies. *Cognitive Behaviour Therapy, 44*(5), 423-440.
- Pike, A., et al (2016). Effectiveness of psychological interventions for chronic pain on health care use and work absence: systematic review and meta-analysis. *Pain, 157*(4), 777-785.
- Pinheiro, M. B., et al (2016). Symptoms of depression as a prognostic factor for low back pain: a systematic review. *The Spine Journal, 16*(1), 105-116.
- Richmond, H., et al (2015). The effectiveness of cognitive behavioural treatment for non-specific low back pain: a systematic review and meta-analysis. *PLoS ONE, 10*(8), 1-20.
- Todd, J., et al. (2015). Towards a new model of attentional biases in the development, maintenance and management of pain. *Pain, 156*(9), 1589-1600.
- Turk, D. C. (2002). A diathesis-stress model of chronic pain and disability following traumatic injury. *Pain Research and Management, 7*(1), 9-20.
- Vlaeyen, J. W., et al (1995). Fear of movement/(re)injury in chronic low back pain and its relation to behavioral performance. *Pain, 62*(3), 363-372.
- Watkins, E. (2015). An alternative transdiagnostic mechanistic approach to affective disorders illustrated with research from clinical psychology. *Emotion Review, 7*(3), 250-255.
- Williams, A. C. D. C., & Schäfer, G. (2016). How do we understand depression in people with persistent pain? *Journal of Contemporary Psychotherapy, 46*(3), 149-157.
- Wurm, M., et al (2016). Characteristics and consequences of the co-occurrence between social anxiety and pain-related fear in chronic pain patients receiving multimodal pain rehabilitation treatment. *Scandinavian Journal of Pain, 12*, 45-52.