

# Chronic pain: psychological formulation and MDT working: a COVID-19 pandemic reflective update

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## Abstract

Chronic pain management is complex and often a challenge to manage. Patients' expectations are frequently at odds with the treatment outcomes which can be a significant source of distress. This is been further compounded by the significant impact of the coronavirus disease (COVID-19) pandemic with patients' access to pain clinic services reduced in many areas. Clinical psychologists work as part of the multidisciplinary pain team to draw together information and develop a biopsychosocial understanding of how to support patients to live well while experiencing ongoing pain in the context of the COVID-19 pandemic. This article presents two alternative models for formulating and providing therapy for individuals experiencing chronic pain including consideration of the impact of the COVID-19 pandemic: cognitive behavioural therapy and acceptance and commitment therapy. Psychologically informed strategies to support healthcare professionals in their interactions with people with chronic pain are presented.

**Keywords** ACT; acceptance and commitment therapy; chronic pain; cognitive behavioural therapy; COVID-19 pandemic; formulation; pain management; psychology

**Royal College of Anaesthetists Framework of CPD Skills:** Pain

## Why have clinical psychologists in pain clinics?

As discussed in the authors' previous article 'Chronic pain: psychological formulation and MDT working'<sup>1</sup> the field of chronic pain continues to present unique challenges both to clinician and patient. Pain can have a significantly detrimental impact upon an individual's ability to engage in meaningful activities and relationships. The individual's sense of self and view of others and the world around them may be impacted.

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## Learning objectives

After reading this article, you should be able to:

- understand the role of the clinical psychologist in chronic pain teams
- know what is meant by formulation
- understand two psychological approaches commonly used in pain settings
- be able to consider methods of communication that will support engagement and understanding
- consider the impact of the coronavirus disease pandemic on those using chronic pain services

These challenges will be influenced by psychological factors, such as anxiety, depression or trauma. Psychological difficulties can be exacerbated as pain is heightened, and increasing psychological distress can exacerbate pain.

Pain and suffering on some level are fundamental to human being. Life is punctuated by losses, failures, bereavements and adverse life events. This can feel at odds with the modern world which can be conceptualized as an 'analgesic culture' in that we make efforts to avoid pain and distress.<sup>2</sup> When the avoidance of inevitable pain fails we may think that any pain experienced should be short-lived, treatable, and a cause for sympathy.<sup>3</sup> Eccleston (2011) suggests that generally the analgesic culture is successful. When it fails it is because pain falls outside of these expectations such as when pain continues for too long, does not respond to treatment, and impairs social function. This chronic nature of pain presents particular challenges to clinicians as patients arrive at pain clinics with specific beliefs about their pain and expectations of the treatment.

Since the most commonly cited definition of pain holds that pain is "... an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage",<sup>4</sup> we see that psychology underpins the very definition of pain. Thoughts and emotions impact pain processing at the neural level which in turn establishes the foundations for the mind–body connection.<sup>5</sup> While patients may conceptualize pain as a purely physical sensation, it is widely understood that pain has biological, psychological and emotional factors.

According to reports from the Faculty of Pain Medicine and British Pain Society, the COVID-19 pandemic has led to significant disruption of services providing multidisciplinary pain management.<sup>6</sup> Eccleston et al. (2020) highlight that the cessation of treatment for people with persistent pain will have consequences for service users and healthcare providers as the number of people requiring pain management services and the complexity of their problems will increase. Reduced access to assessment and treatment can lead to increased severity of symptoms.<sup>7</sup> Research has shown that people with persistent pain experience greater adverse effects of 'lockdown'.<sup>8</sup> The authors suggest this may lead to self-perceived increases in pain, greater increases in anxiety and depression, increased loneliness and reduced physical activity leading to increased levels of psychological distress and decreased physical conditioning. Reduced access to

multidisciplinary pain management services is likely to increase the burden on healthcare.<sup>9</sup>

### Clinical case formulation

Clinical psychologists are well placed to work alongside people living with chronic pain. A core component of the profession includes the drawing together of complex, clinically relevant information into a clinical case formulation. Formulation aims to ‘... summarize and integrate a broad range of biopsychosocial causal factors. It is based on personal meaning and constructed collaboratively with service users and teams ...’.<sup>10</sup> In clinical practice, formulations are used to develop a collaborative hypothesis and provide a framework for the most suitable treatment approach. The widest formulation will be that of the biopsychosocial model and will be relevant to the whole multidisciplinary team and their interventions. Indeed, it could be argued that the central purpose of a multidisciplinary team meeting is to collaboratively develop the biopsychosocial formulation in order to decide upon the most appropriate treatment approach.

The impact of the COVID-19 pandemic must be considered within the formulation. The impact of COVID-19 upon psychological health has become increasingly apparent.<sup>8</sup> Studies have shown that during peak lockdown conditions, sharp increases were seen in prevalence of anxiety and depression in the general adult population<sup>11</sup> and these psychological experiences can exacerbate pain.

To illustrate some alternative ways of formulating the experiences of chronic pain we will present a case study and two different theoretical formulations – cognitive behavioural therapy (CBT) and acceptance and commitment therapy (ACT) – which both give consideration to the impact of the COVID-19 pandemic. Both CBT and ACT are named as recommended psychological therapies in the most recent National Institute for Health and Care Excellence (NICE) guidance in the management of chronic pain.<sup>12</sup>

### A case example

Mrs C is a 54-year-old woman presenting with an 8-year history of widespread pain. She served as a police officer from the age of 18 years; during this time she was exposed to significant traumatic events. Mrs C was medically retired from the police 6 years ago, and has since been unemployed and claiming benefits. Prior to the onset of chronic pain Mrs C enjoyed regular running and martial arts. Mrs C has found it difficult to engage with physiotherapy and is becoming increasingly frustrated with her loss of strength. Mrs C adheres to the medication regimen set out for her but reports that the pain is uncontrolled. Mrs C states that she ‘doesn’t trust her body any more’ and feels ‘worthless’. Her youngest daughter is studying at a university and was unable to return home due to COVID-19 restrictions during lockdown. Her eldest daughter lives in the next county and reported a decline in her emotional wellbeing since her employer took the decision to work remotely. Mrs C expressed her anxiety for the emotional welfare of the family members, the risk of them developing COVID-19 and the risk of her husband, who continued to work as a police officer, bringing the virus into the family home. She expressed hopelessness around an inability to change the situation or offer support to her children in person.

### Cognitive behavioural therapy (CBT)

A CBT formulation of pain will consider the relationship between thoughts, feelings, behaviours and somatic experience, and how these can interact to maintain ongoing difficulty. This interrelationship is considered in the light of early experiences and belief systems that have been developed as a result. For example, patients who believe pain means damage in their body may be fearful of movement and avoid it. This leads to deconditioning and increases pain in the long run, reinforcing their fear and avoidance. Interventions may include psychoeducation, relaxation, pacing, behavioural activation, behavioural experiments and cognitive restructuring.

A collaborative formulation would be drawn up with the patient and a treatment plan developed. Personalized psychoeducation about pain and how it relates to emotion and behaviour would be provided in a way that enhances the formulation. Strategies to disrupt the maintenance cycle will be considered. For example, it is likely that Mrs C is experiencing low mood related to her loss of role as a police officer and loss of her previously enjoyed activities, both due to pain and the pandemic lockdown, and feeling unable to support her family. She may experience thoughts of ‘what’s the point?’ or ‘I’m worthless’. This can result in a loss of motivation and decreased pleasure seeking. She is then less likely to feel able to adapt and engage in other enjoyable activities, further reducing pleasurable and meaningful experiences, and further increasing her experience of worthlessness. Exploring ways of re-engaging in activities by using behavioural activation and pacing is one way that this maintenance cycle could be disrupted. Cognitive restructuring would be used to challenge thoughts that are reinforcing the maintenance cycle. In addition, relaxation techniques may be taught and applied.

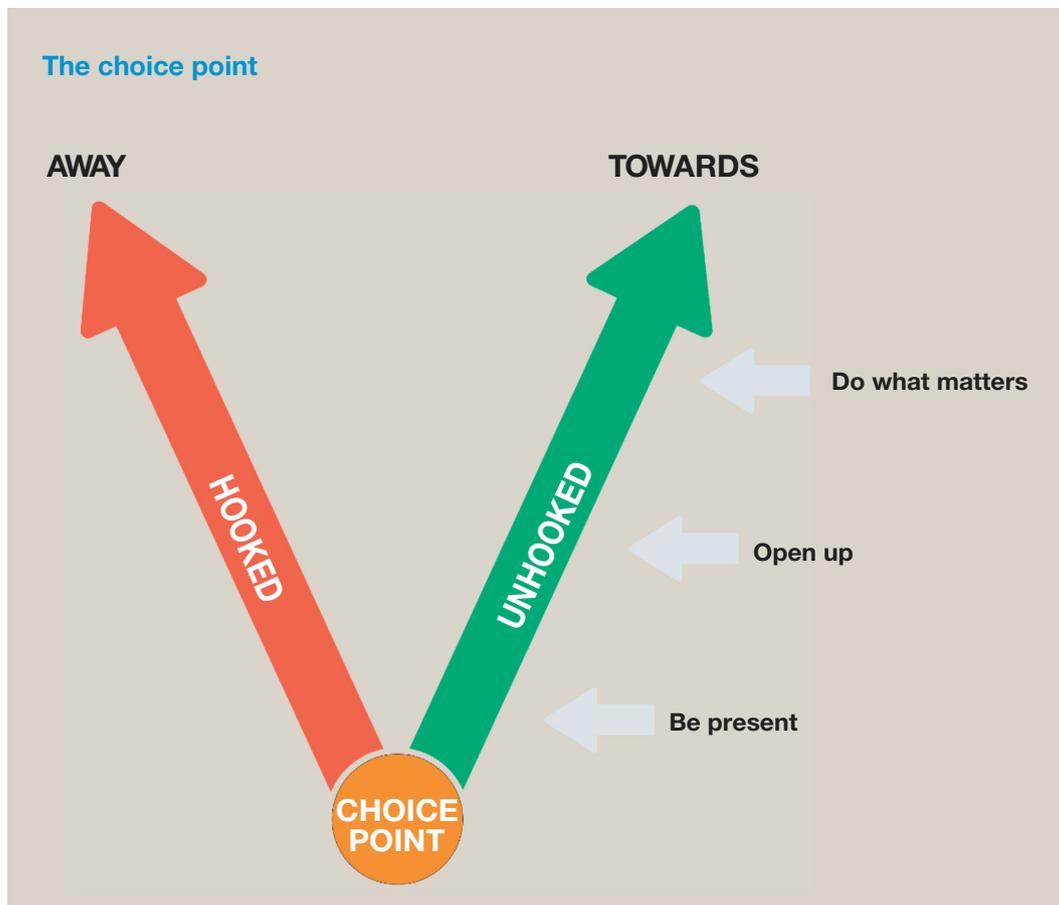
The formulation will be shared, with the patient’s consent, with other healthcare professionals involved in order to inform all areas of her care. Sometimes joint sessions with different members of the multidisciplinary team (MDT) can be helpful.

### Acceptance and commitment therapy (ACT)

ACT is part of the larger family of behavioural and cognitive therapies based on principles of contextual behavioural science.<sup>13</sup> The six core therapeutic principles of ACT work to develop psychological flexibility. These are:

- Acceptance – the process of being actively aware of internal experiences (e.g. thoughts, feelings, somatic sensations) allowing them to come and go without engaging in a struggle with them
- Cognitive defusion – labelling and observing internal experiences without becoming caught up with them
- Present moment awareness – ongoing non-judgemental awareness of internal and external events as they occur
- Self as context – this is the awareness that an individual is not their experiences, thoughts or feelings but that these occur within the self
- Values – identifying what gives meaning and purpose to an individual
- Committed action – behaviours guided by values that take the individual in the direction of a meaningful life.

In the case of Mrs C, formulation and psychoeducation might be introduced using the choice point (Figure 1). Unlike CBT,



**Figure 1** The choice point.

thoughts will not be explicitly challenged, instead exercises would be used to encourage her to be present, open up and acknowledge her difficult thoughts, and then to deliberately defuse, or ‘unhook’ from these. Further intervention would include developing a sense of what gives her life meaning (her values) and ways of taking committed action to move in that direction within the context of her current pain. For example, if the important value behind her policing role was in helping others, she may start a few hours of volunteer work helping others in an alternative field. If she values supporting her family, she might try video calls whilst in lockdown. The intention is to develop adaptive ways of living a meaningful life alongside pain and distress.

### Complex presentations

It is important when assessing individuals for psychological therapy to consider all factors that could be relevant to the difficulties they face. For example, Mrs C was exposed to ‘significant traumatic events’ during her time in the police force, which might have led to ongoing stress and trauma symptoms, which could impact her pain experience. If this is the case, trauma work may need to be undertaken before pain management work.

### How should psychological therapy be delivered and by whom?

There are many ways that psychological therapy can inform and impact upon patient care. The most obvious is the provision

of individual psychological therapy, while this is likely to be necessary for individuals with complex presentations, it is not necessary for all patients presenting with psychological distress related to chronic pain.

Pain management programmes (PMPs) are psychologically informed multidisciplinary group interventions and have a strong evidence base.<sup>14</sup> PMPs have traditionally been based upon cognitive behavioural principles, although many PMPs have moved towards the principles of acceptance and commitment therapy, which have been outlined. PMPs are generally delivered by clinical psychologists and physiotherapists with input from other members of the disciplinary team. Within a PMP individuals will be given a clear understanding of chronic pain and encouraged to reflect upon how their experiences and current coping strategies may be maintaining their distress and reduced functional level. The psychological model used will then be applied in order to develop alternative ways of living with pain, this will vary depending on the underlying model on which the PMP is based.

### Using psychological understanding when working with people with chronic pain

The psychological formulation is key when guiding any communication with all patients. As noted above, in western society there is a strong narrative that pain and distress are symptoms of underlying pathology that can be cured. Therefore, the experience of chronic pain contradicts the dominant narrative

and as a result can cause distress. It is very common for patients to be distressed when advised by a medic “Good news, your scan is perfectly normal”. Unfortunately this can be very difficult for the clinician who may not be aware that for the individual this represents more uncertainty and a lack of answers.

Some guiding principles for healthcare professionals working in chronic pain include:

- **Understand where the patient is starting from (what is their formulation?)**
  - What do they understand about their pain? Be mindful of misinformation that could be increasing fear and influencing behaviour.
  - What do they expect from you? Are their expectations realistic?
  - What is their prior experience of chronic pain?
  - Do they have particular concerns about their pain?
  - Assess for comorbid mental health problems and consider onward referral to mental health services if appropriate.
  - How have they experienced the COVID-19 pandemic? Has their psychological wellbeing declined? Has their access to chronic pain services/other support services changed?
- **Clear and personalized communication**
  - Remember the impact of pain and many medications on concentration
  - Ensure information is clearly delivered
  - Check understanding
  - Offer written information where appropriate
  - Be mindful of language that can increase fear (e.g. “Your spine is crumbling”) or reduces hope (e.g. “There is nothing we can do”)
- **Provide psychoeducation about the biopsychosocial understanding of pain**
  - Ensure that the patient understands that the healthcare team know their pain is real and not ‘all in their head’
  - Explain the difference between acute and chronic pain and why they need to be treated differently
  - Explain that many people have been adversely affected by the COVID-19 pandemic and normalize their response
- **Encourage self-management**
  - Avoid becoming a ‘fix that will fail’, reiterate that medication and interventional approaches are not curative
  - Consider current coping and reinforce strategies that are effective and identify those that may be maintaining pain and distress
  - Help to develop additional self-management strategies
  - Encourage the individual to think about what makes life meaningful and consider how they can work to gradually build towards activities that take them in that direction
  - Encourage self-compassion in response to the COVID-19 pandemic.

While it is unrealistic to expect every healthcare professional to address psychological or behavioural difficulties presented by patients with chronic pain it is hoped that the above suggestions

will support healthcare professionals to improve engagement and reduce the risk of miscommunication in this complex area. Clinicians should be mindful of the impact of the COVID-19 pandemic on those using chronic pain services. Psychological distress such as increased anxiety, depression, fear, catastrophizing, and suicidal thoughts tend to be exacerbated in times of crisis and tension, requiring greater attention from all healthcare professionals involved in a patient’s care.<sup>15</sup> ◆

## REFERENCES

- 1 Burrell J, Robinson L. Chronic pain: psychological formulation and MDT working. *Anaesth Intensive Care Med* 2019; **20**: 576–8.
- 2 Eccleston CA. Normal psychology of chronic pain. *Psychol* 2011; **24**.
- 3 Morris DB. The culture of pain. Berkeley: University of California Press, 1991.
- 4 Merskey H, Albe Fessard D, Bonica JJ, et al. Pain terms: a list with definitions and notes on usage. *Pain* 1994; **6**: 249–52.
- 5 Gracely RH, Geisser ME, Giesecke T, et al. Pain catastrophizing and neural responses to pain among persons with fibromyalgia. *Brain* 2004; **127**: 835–43.
- 6 Faculty of Pain Medicine and British Pain Society. An update from the FPM and BPS to those waiting to access pain services. 2020, <https://www.britishpainsociety.org/mediacentre/news/an-update-from-the-fpm-and-bpsto-those-waiting-to-access-pain-services/>
- 7 Eccleston C, Blyth FM, Dear BF, et al. Managing patients with chronic pain during the COVID-19 outbreak: considerations for the rapid introduction of remotely supported (eHealth) pain management services. *Pain* 2020; **161**: 889–93.
- 8 Fallon N, Brown C, Twiddy H, et al. Adverse effects of COVID-19-related lockdown on pain, physical activity and psychological well-being in people with chronic pain. *Brit J pain* 2021; **15**: 357–68.
- 9 Kirwan R, McCullough D, Butler T, et al. Sarcopenia during COVID-19 lockdown restrictions: long-term health effects of short-term muscle loss. *Geroscience* 2020; **42**: 1547–78.
- 10 Division of Clinical Psychology. Practice guidelines on the use of psychological formulation. Leicester: British Psychological Society, 2011.
- 11 Li J, Yang Z, Qiu H, et al. Anxiety and depression among general population in China at the peak of the COVID-19 epidemic. *World Psychiatr* 2020; **19**: 249–50.
- 12 National Institute for Health and Care Excellence. Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain. NG193. 2021.
- 13 Hayes SC, Levin ME, Plumb-Villardaga J, et al. Acceptance and commitment therapy and contextual behaviour science: examining the progress if a distinctive model of behavioural and cognitive therapy. *Behav Ther* 2013; **44**: 180–98.
- 14 British Pain Society. Guidelines for pain management programmes for adults: an evidence-based review prepared on behalf of the British Pain Society, 2013.
- 15 Gunnell D, Appleby L, Arensman E, et al. Suicide risk and prevention during the COVID-19 pandemic. *Lancet Psychiatry* 2020; **7**: 468–71. [https://doi.org/10.1016/S2215-0366\(20\)30171-1](https://doi.org/10.1016/S2215-0366(20)30171-1)