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PAIN NEWS

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Konstantin Makovsky c.1870 - c.1880

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Finding out who your parents are

Pain News update Summer 2022

Training in Mindfulness

An untouched life

Global variation in pain prevalence

Fast track pathway for spinal radiofrequency

Five Stages of Chronic Illness



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Finding out WHO your pain parents are and how to deal with them NICE-ly

Rajesh Munglani

It is good for a child to have a good relationship with their parent and it is even better to have a good relationship with two parents who also communicate with each other, even though the parents may be very different from each other. It goes without saying that, in contrast, orphans have a tough time recognising their place, meaning and identity within the world and society. We all need understanding and loving homes.

I am sure the powerful imagery evoked by this parent–child analogy was not lost on the World Health Organization (WHO) as it introduced a new international classification for disease

(*International Statistical Classification of Diseases and Related Health Problems—Eleventh Edition (ICD-11)*). Fifty-five thousand unique codes are given for injuries, diseases and causes of death. It allows the capture of data regarding safety in healthcare, which means that unnecessary events that may harm health can be categorised – including the contribution of unsafe workflows in hospitals. The ICD-11 also includes new chapters on topics such as traditional medicine and sexual health.¹

The constitution of WHO was conceived in the wake of World War II and came into force on 7 April 1948.² Its founding

Constitution of the World Health Organization.¹

The States Parties to this Constitution declare, in conformity with the Charter of the United Nations, that the following principles are basic to the happiness, harmonious relations and security of all peoples:

- Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
- The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.
- The health of all peoples is fundamental to the attainment of peace and security and is dependent on the fullest co-operation of individuals and States.
- The achievement of any State in the promotion and protection of health is of value to all.
- Unequal development in different countries in the promotion of health and control of diseases, especially communicable disease, is a common danger.
- Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development.
- The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.
- Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.
- Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures.

Accepting these principles, and for the purpose of co-operation among themselves and with others to promote and protect the health of all peoples, the Contracting Parties agree to the present Constitution and hereby establish the World Health Organization as a specialised agency within the terms of Article 57 of the Charter of the United Nations.

The Constitution was adopted by the International Health Conference held in New York from 19 June to 22 July 1946, signed on 22 July 1946 by the representatives of 61 States (*Off. Rec. Wld Hlth Org.*, 2, 100), and entered into force on 7 April 1948. Amendments adopted by the 26th, 29th, 39th and 51st World Health Assemblies (resolutions WHA26.37, WHA29.38, WHA39.6 and WHA51.23) came into force on 3 February 1977, 20 January 1984, 11 July 1994 and 15 September 2005, respectively, and are incorporated in the present text.

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constitution (see the below box) is a brave and noble set of visionary principles and proclamations rising out of and looking beyond the ashes and unimaginable human suffering of the then very recent war. The 7 April date is remembered annually as the World Health Day.

As part of its mandate to advance global health, the WHO took on the task of updating what was then known as the International List of Causes of Death, a taxonomy used to track mortality across the globe. The WHO then updated the list to include morbidity, which is the rate of disease in a population, and renamed its effort as the ICD. ICD-11 was presented to the World Health Assembly in May 2019 and came into effect on 1 January 2022.

In preparation for this, 6 years of collaborative effort were required from a joint International Association for the Study of Pain (IASP) – WHO Working Group led by Rolf-Detlef Treede (who became the president-elect of IASP in 2012) and co-chair Winfried Rief, and gave rise to the new classification system for chronic pain to be adopted in ICD-11. The new system introduced a single code for the diagnosis of chronic pain alongside other codes for other chronic pain conditions. Critically, this new system of classification viewed chronic pain as both a stand-alone health condition and a symptom that is secondary to an underlying disease.

That is, if chronic pain was a child, then it could have two (or even more) parent diagnoses. After all, most of us have had two parents at some stage of our lives, so, in one sense, it was not such a radical proposition. ICD-11 was also nuanced and adaptable and takes into account not only the intensity of pain but also pain-related disability and distress, along with psychosocial factors that contribute to the experience of pain.³ The intention was that chronic pain would become less of an orphan by recognising its own status and instead become more of a child recognised and accepted by multiple adopting parents.

In ICD-11, where now chronic pain itself is considered a disease process or condition in its own right, as a diagnosis, it is given a name, chronic primary pain (CPP). The intention was also to effectively deal with the psychosocial aspect and avoid the words like ‘functional’ and ‘somatoform’, considered by some to be pejorative and dismissive. After all, we recognise that all pain has a psychological and social consequence. They also recognised that, as time goes on, in chronic pain, the biomedical component may become less important and the psychosocial component may become more important. The biomedical components would be termed loosely chronic secondary pain (CSP). It was important to recognise that even

if a chronic pain (child) relied more on one parent (say the CPP, psycho social side) that did not mean the other parent (CSP, biomedical side) was of no importance whatsoever.

The classification recognised not only the complexity background/makeup or ‘genetics’ of a chronic pain in an individual, – ‘the child’, but also had implications on how to treat the child.

This concept of multiple parenting is discussed at length in the explanatory papers produced at the time. Treede et al.⁴ states,

... multiple parenting concept of WHO for ICD-11:

In contrast to the strictly linear structure of all previous versions of ICD, ICD-11 allows for any given disease (‘child’) to belong to more than one section (‘parent’). This is called ‘multiple parenting’.

Focusing on the intention of the authors as regards CPP, Nicholas et al.⁵ wrote the following:

Many chronic pain conditions have an obscure aetiology and pathophysiology, but they are characterized by a complex interplay of biological, psychological, and social factors. Currently, these conditions are covered by labels such as chronic widespread pain (CWP), fibromyalgia, complex regional pain syndrome, type I (CRPS1), temporomandibular disorder (TMD), irritable bowel syndrome (IBS), and most back pain and neck pain conditions, which invariably include vague and ambiguous terms such as ‘nonspecific’, ‘somatoform’, or ‘functional’.

The definition of the new diagnosis of CPP is intended to be agnostic with regard to aetiology; ... it aims to avoid the obsolete dichotomy of ‘physical’ vs ‘psychological’, ‘nonspecific’. ‘Functional’ is also ambiguous. Some take it to mean ‘all in the mind’ and others as a ‘disorder of function’. The introduction of ‘chronic primary pain’ [is meant to – my addition] eliminates this ambiguity.

CPP is defined as pain in one or more anatomical regions that:

- persists or recurs for longer than 3 months;
- is associated with significant emotional distress (e.g. anxiety, anger, frustration or depressed mood) and/or significant
- functional disability (interference in activities of daily life and participation in social roles);
- and the symptoms are not better accounted for by another diagnosis;

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- the experience of chronic pain should be sufficiently concerning for the person to seek help for it.

Importantly, it goes on to say:

As in all conditions, before a diagnosis is made, it has to be ascertained whether another diagnosis better accounts for the chronic pain presentation, in which case, the diagnoses are the chronic 'secondary' pain syndromes e.g. chronic cancer pain, chronic postsurgical or posttraumatic pain, chronic neuropathic pain, secondary headache or orofacial pain, chronic secondary visceral pain, and chronic secondary musculoskeletal pain [this list is not exhaustive – my addition].

The schematics from both Nicholas 2019 and Treede 2019 below emphasise this fact of dual or more parent diagnoses for any pain (see Figures 1 and 2 and the accompanying legends).

This was explicitly recognised by the National Institute for Health and Care Excellence (NICE) that multiple parenting may be present and, accepted by NICE itself (see Figure 3 and note the last line of the schematic).

From Figure 3, 'Chronic pain persists for more than 3 months. Chronic primary pain has no clear underlying condition or is out of proportion to any observable injury or disease. Chronic secondary pain is a symptom of an underlying condition. Chronic secondary pain and chronic primary pain can coexist'. This last statement was all but lost in the ensuing media maelstrom.

These caveats and cautions from the NICE guidance committee and also the original principles fundamental to pain diagnosis in ICD-11 seem to have been lost on some commentators in the media in discussing new CPP guidelines from NICE known as NG-193.⁶ NICE concluded that looking at the (admittedly poor) evidence base examined, very few treatments have been demonstrated to work therapeutically at a group level in CPP patients apart from physiotherapy and antidepressants.

Furthermore, the explicit mentioning of, say, chronic low back pain as probably belonging to the CPP category has also given impetus to those arguing, for example, that opioids, injections or anti-inflammatories do not work in low back pain (as it is thought to be mainly a CPP that is a CCP-type back pain), but, in fact, diagnosing CPP does not exclude the possibility that

another parent diagnosis is also involved in the life of that particular chronic pain or 'child' in that individual patient. This additional parent would be a CSP and represent a more biomedical diagnosis for the back pain – such as vertebral collapse or facet joint disease. The parent diagnosis of chronic secondary back pain or chronic secondary musculoskeletal pain could also be assigned clinically and may be simultaneously and significantly contributing to the life of that particular child.

In my view, many of the arguments that followed the NICE guideline were actually unnecessary in part, because a cursory glance at the guidelines recognised that in an individual, the CPP component (best treated, say, by physiotherapy, antidepressants and acupuncture) may exist alongside CSP treated with biomedical options including drugs, injections and, indeed, any additional psychosocial diagnoses and treatment options (say talking therapies). In an individual, the influence of the two (or more) parents can be very different, and moreover, their influence can vary with time.

As has been said since 1977 by George Engel⁷ and Loeser in 1982,⁸ pain has to be considered in its biopsychosocial context. ICD-11 simply restates that, in a new language for a modern time, as we come to understand more of both the biomedical basis and the pathophysiological process of chronification of pain. The concept of multiple parenting applies to assessment, diagnosis and treatment within an individual with chronic pain. It is still the explicit prerogative of the clinician assessing an individual patient to apply clinically as many parent diagnoses as they see are appropriate.

Taking less than full consideration of the guidelines along with less than full consideration of the patient and the complexity of their condition is therapeutically harmful and nihilistic and, in my view, falls below a reasonable standard of chronic pain assessment.

NICE itself states,

When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Figure 1. Multiple parenting that is the pain process or entity – ‘the child’ in a patient can simultaneously belong to multiple parent categories.

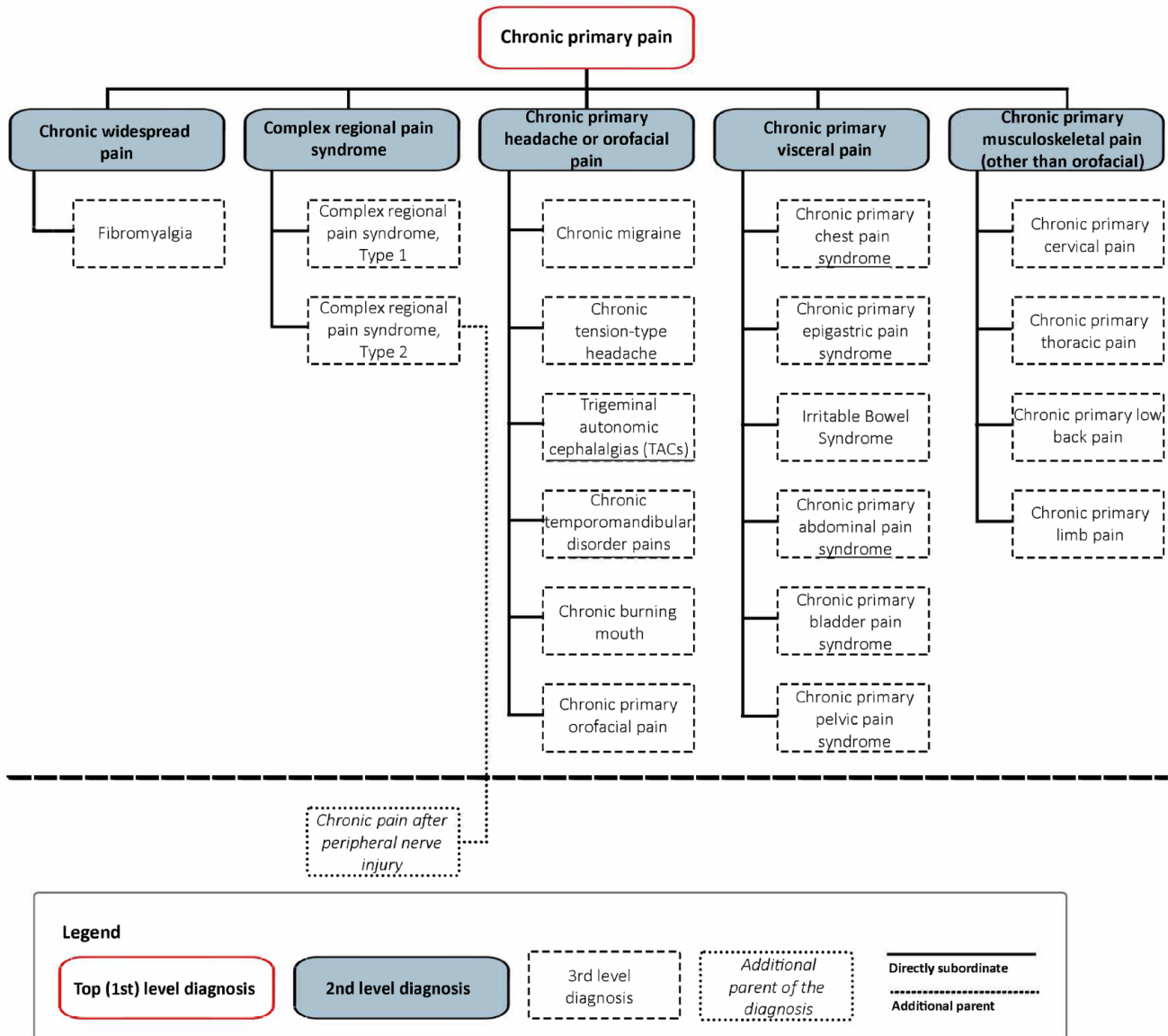


Figure 1. The general structure of the classification of chronic primary pain. Level 1 and 2 are part of the 2018 frozen version of ICD-11: level 3 has been entered into the foundation layer. According to the new concept of multiple parenting in ICD-11, an entity may belong to more than one group of diagnoses.

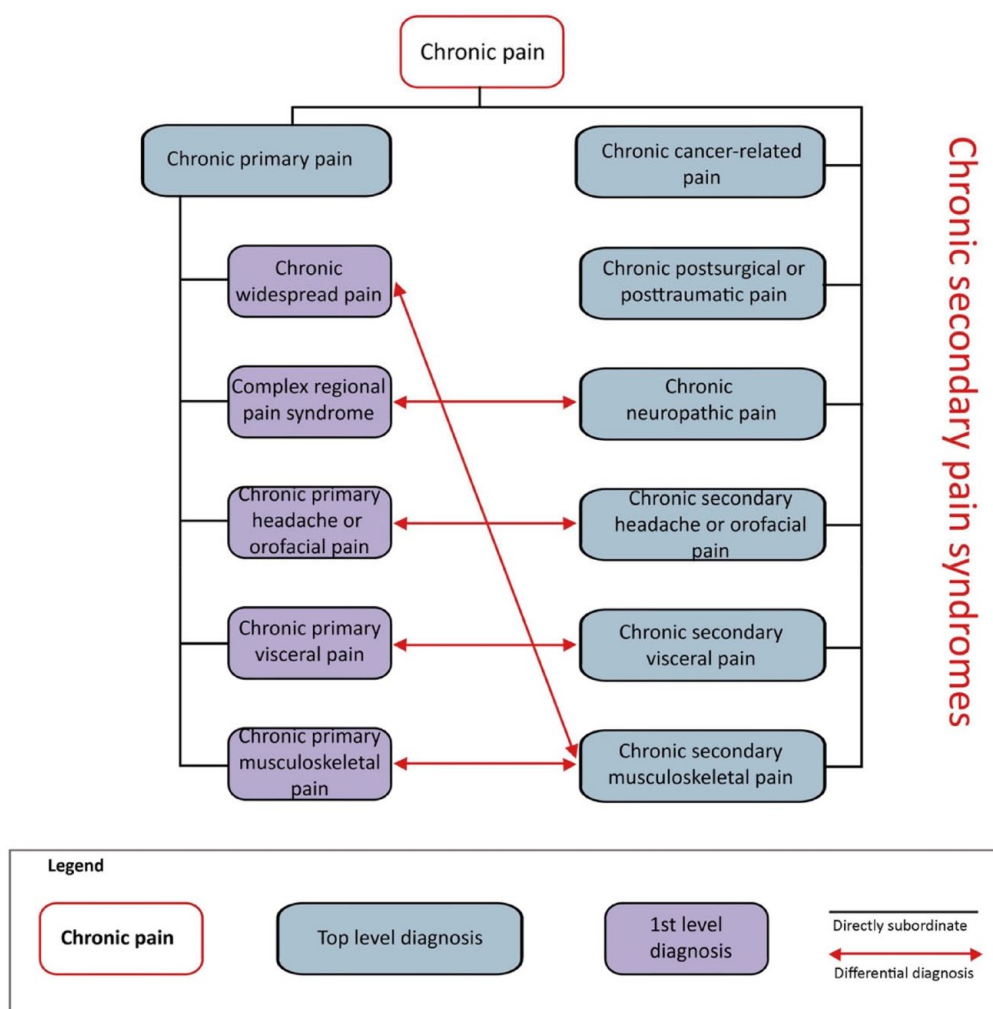
Source: From Treede (2019) (redrawn).

By saying this, NICE also acknowledges the Supreme Court Judgement of Montgomery 2015⁹ in involving a patient in the decision-making process.

So, an example of what NOT to do in practice is to simply put patients in chronic pain on opioids wholesale, or take

them all off opioids without a careful assessment of the whole biopsychosocial context of an individual patient and importantly to monitor the results of therapy, as no treatment is likely to be 100% efficacious. Indeed, any therapy, including psychological therapy or drugs or exercise or acupuncture or injections, is unlikely to give more than 50%

Figure 2. Structure of the IASP Classification of Chronic Pain. In chronic primary pain syndromes (left), pain can be conceived as a disease, whereas in chronic secondary pain syndromes (right), pain initially manifests itself as a symptom of another disease such as breast cancer, a work accident, diabetic neuropathy, chronic caries, inflammatory bowel disease or rheumatoid arthritis. Differential diagnosis between primary and secondary pain conditions may sometimes be challenging (arrows), but in either case, the patient's pain needs special care when it is moderate or severe. After spontaneous healing or successful management of the underlying disease, chronic pain may sometimes continue, and hence, the chronic secondary pain diagnoses may remain and continue to guide treatment as well as healthcare statistics.



Source: From Nicholas 2019 (redrawn).

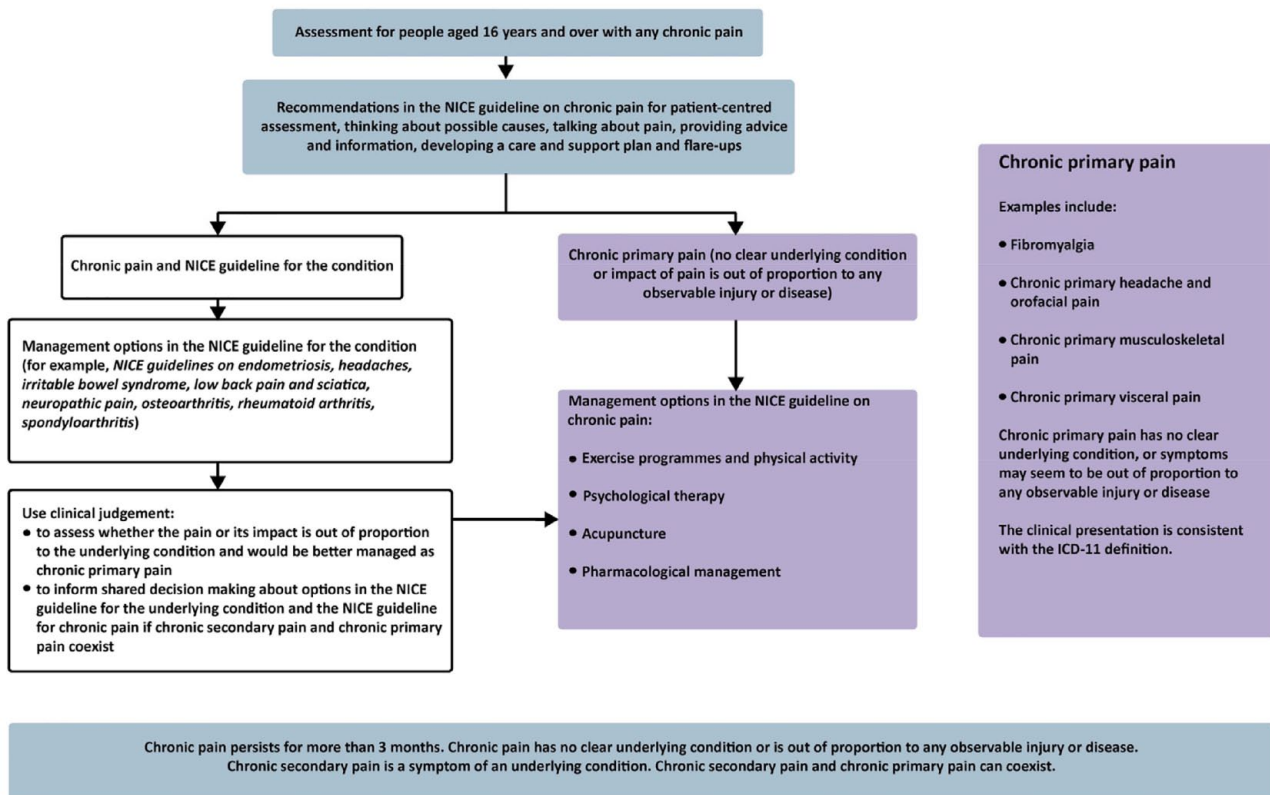
relief (and definitely not in the long term) in more than one-third of individuals given such treatment.^{10,11}

What is needed in the real world of clinical practice is a cautious, careful and compassionate approach, treating our

patient with their chronic pain and figuratively holding the patient in our arms with the utmost care and concern ('the child' in the original analogy) and elucidating what the child would like and also what is good for the child.

Figure 3. From NICE guidance NG-169 chronic pain guidelines (redrawn).

Chronic pain (primary and secondary) - using NICE guidelines for assessment and management



The immediate implications are that the NICE chronic pain guidelines are only applicable to one aspect of an individual patient's chronic pain, so more than one guideline may apply. For example, while complex regional pain syndrome (CRPS) is listed as an example of a CPP and we accept it is likely it will have a significant component of CPP as a parent diagnosis with all its psychosocial implications, however, the CSP (more biomedical side) neuropathic pain guideline may also apply, thereby liberating the clinician to prescribe also antineuropathic drugs, and utilise techniques such as spinal cord stimulation, experimental immunosuppressant therapy as well as physiotherapy and antidepressants. The chronic pain patient's parents of CPP and CSP may be very different in how they relate to their child, but they do not have to be at war and they should certainly talk to each other.

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Jenny Nicholas



The summer has arrived and before long the holidays will be here. I do hope that we will see many of you this year at our first ever hybrid Annual Scientific Meeting in Wembley, London – 13–15 June 2022.

For me the longer days and sunnier spells bring with them a sense of renewed energy and that anything is once again possible. This issue once again helps us to consider how far our understanding of pain has

come, and how we continue to strive to learn more.

Here is a sneak preview of some of the articles we have in store for you this issue ...

- We commence this issue with a piece from our Editor Dr Raj Munglani on 'Finding out WHO your pain parents are and how to deal with them NICE-ly'. An interesting analogy between parenting and the use of ICD-11.
- Margaret Dunham, our Associate Editor, provides us with this edition's roundup of all things pain news, with

some congratulations in order! We would be delighted to hear your news that we may feature in this new section of *Pain News*, so do keep us informed on what is happening to improve your work and practice wherever you are.

- The following authors discuss 'Full mindfulness-teacher training pathway and courses on pain management programmes: why it may all be worth it' Alessio Agostinis, Jonathan Bond, Julia Morris, Ben Rosser, Michelle Barrow and Chad Taylor.
- Alan Fayaz looks into the 'Global variance in pain prevalence: what does it tell us?'.
- We finish this issue with a brief look at Rembrandt's life.

We do hope that you enjoy this issue of *Pain News*, and we are always glad to hear your feedback!

Have your say

We would welcome your views and letters on any of the topics we have covered in this, or previous issues of *Pain News*.

We also welcome articles, so if you have a story to share, please contact us at newsletter@britishpainsociety.org. We would be delighted to hear from you!

Message from the President

Arun Bhaskar



Dear Friends

I trust this finds you well.

The restrictions due to Covid are no longer in place, but this has not made it any easier for practicing clinicians. Patients have been waiting for several months for treatment due to various reasons including extended waiting times due to lack of NHS capacity and those who were required to shield due to clinical vulnerability. This has increased the workload for most pain clinics and so they have found it difficult to address the demands of people who are struggling to manage their pain. In addition, the ever-increasing clinical workload and the understandable requirement for NHS staff to isolate when

found to be Covid-positive has increased the pressure on the remaining staff. My concern is that the workforce is protected despite the challenges of waiting list pressures.

ASM

By the time you are reading this, we would have had our Annual Scientific Meeting (ASM) in London. I would like to take this opportunity to thank Dr Stephen Ward and the Scientific Programme Committee for putting together varied and exciting plenaries and parallel sessions. I would also like to specially thank Dr Ashish Gulve for his dedication and steer in making the ASM organisation run smoothly. My thanks also go to Kenes and the Secretariat in their support in organising the meeting. I would like to take this opportunity to formally thank all the industry partners and colleagues who have come together to support our meeting.

Honorary members

It is with great pleasure that I announce that the British Pain Society (BPS) bestowed honorary membership to Prof. Andrew Baranowski and Dr Rajesh Munglani last year. Since we did not have a regular meeting, we are delivering the citations and awards this year. Andrew has served the BPS in several capacities – Elected Council Member, Hon. Treasurer and President. In addition, he has been the Chair of the Pain CRG and Chair of PUGO for IASP. Raj has also been an elected Council member and is currently the Editor-in-Chief of *Pain News*. Raj has been instrumental in bringing together Pain clinicians through the Google group and has also raised the profile of the medicolegal pain and its associated SIG. He has also been representing the BPS on mainstream media queries and has appeared on both radio and the television, along with several pieces in the newspapers. I would like to thank both of them for their services and hope that they would continue to advise and support the Society.

Elections

The next round of Council elections would have completed and the results announced by the time you are reading this issue of *Pain News*. I would like to congratulate Prof. Roger Knaggs who was elected unopposed as President-elect, and Dr Neil Collighan was elected by the Council as Hon. Secretary-elect. Dr Ashish Gulve would continue in his term as Hon. Treasurer.

Message from the President

We also had elections for three Council positions: Dr David Pang and Dr Krishnamoorthy were re-elected and Dr Sumit Gulati joins us as a new Elected Council Member. I would like to take this opportunity to congratulate not only the newly elected office-bearers, but also those who put themselves forward for the election. In my previous message I mentioned, despite our requests, how disheartening it is to hear about lack of representation in our Society from some parts of the United Kingdom or from some disciplines. We shall be working alongside the executives-in-waiting and Council to chart out the future direction of the BPS and to promote inclusivity.

Credentialling

The Faculty of Pain Medicine is leading on the credentialling for Pain Medicine with the General Medical Council for doctors who are interested in practising pain medicine. Alongside this, The Faculty of Pain Medicine and The BPS are working with Health Education England to credential non-medical colleagues for Advanced Practice in Pain Management. This strategy covers all four nations of the United Kingdom, and I am delighted that The BPS is working together to achieve this goal. I am delighted that Prof. Roger Knaggs, Mrs Felicia Cox and Prof. Paul Cameron are leading on this project on behalf of the Society. Dr Ayman Issa, Hon. Secretary, has included a strategy for training sessions and education modules in his 5-year plan to help health care professionals achieve competency and help

those who are interested in having a career in Pain Management.

The future of the BPS

The last couple of years have been challenging for the BPS; the plans to mitigate losses and instead promote financial stability were significantly hampered by the pandemic. Due to several reasons, the membership of the organisation has been steadily declining. The membership numbers are important to sustain a Society and for us, membership fees are a source of income, second only to the ASM. We have had support from the industry partners, and we have put together a great ASM, which is our major source of income, but this will only be successful with your support and participation. We are implementing an Industry Support Scheme. These plans, which were unfortunately delayed due to the pandemic, and this 5-year plan involve looking at alternative sources of income generation as the current (and future) membership fees will not cover the running expenses of the Society. Despite all these issues, we seem to be heading in the right direction in terms of improving the financial situation, but this work has to continue for the foreseeable future. Your support is vital now more than ever, if we are to remain in existence as the oldest Pain Society and continue with the multidisciplinary membership. I have every reason to be optimistic as the Society remains in good hands during the coming years.

Pain News summer 2022

Margaret Dunham *Associate Editor, Associate Professor, Edinburgh Napier University*



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SAGE

As we enter the summer months and conference season, here are just a few highlights from the news and general world of pain research. First, massive congratulations should go to Professor Irene Tracey, Warden of Merton College, on her nomination as a Pro Vice-Chancellor of Oxford University. Professor Tracey has been a leading researcher in pain neuroscience for many years. Among her many enviable achievements, Professor Tracey has been and continues to be an exemplary communicator and advocate for the demystification of pain neurobiology and its application to clinical practice. I am sure she will use her outstanding skills and knowledge to ensure Oxford's reputation as a centre of excellence in pain research continues to grow, alongside her other considerable responsibilities. Very well done!

Pain and inequality

We all have anecdotal experience of people from poorer backgrounds who have reduced access to healthcare services in general. This also applies to those living with pain and their access to pain services. A recent review paper summarises the link between demographic factors – including education, income and employment – on pain.¹ The authors confirmed an association with wider health inequality and chronic pain, disability and poorer health outcomes, in particular.

Opioids

The use of methadone in the management of substance abuse is not without its own significant issue, ironically withdrawal. In a small novel US study,² adults ($n=17$) received hyperbaric oxygen therapy in contrast to a control group ($n=14$). The potential benefit to a wider population is noted but given the large numbers with substance abuse, people who are volunteers for any similar study have a simple advantage over some of the remaining population, that is a desire to change.

A more cost-effective method of reducing opioid consumption could involve acupuncture. A research team in the United States recently found that ear stimulation in the form of electro-auricular acupuncture showed potential to reduce opioid consumption.³ During knee surgery on 41 participants, needling was applied by a medical acupuncturist to points on

the ears with 30Hz of stimulation with promising results. We await the randomised controlled trial (RCT) with anticipation.

Opioid use disorder is a relatively new concept, as applied to prescribed opioids. The phrase implies some layer of wrongdoing, but on whose part? The culture of blame and stigma presides, and the associated narrative is unhelpful when patients are adversely affected. In the United States, data related to opioid-related morbidity and mortality are stark. In 2020–2021, it is estimated that there were 101,300 opioid overdose deaths.⁴ However, within these data, it is not possible to determine how many were related to illegal use of opioids. A recent summary review of opioid use disorder published in the *New England Journal of Medicine* (NEJM) recommends embracing this in a similar way to other chronic diseases, exploring a patient focused on biopsychosocial, supportive and educational approach rather than focusing solely on medication strategies.⁵ I welcome the shift in tone of this paper and the move towards a less paternalistic and punitive model of support for people living with opioids and other addictive substances.

Ironically, access to opioids remains an ongoing issue in many countries around the world. Analysis of the data related to global sales of opioid analgesics makes for interesting, if alarming reading, as noted by a team led from University College London (UCL).⁶ Despite an overall increase in global consumption of opioids between 2015 and 2019, countries with some of the highest incidence of cancer deaths had the least access to opioids, very unfair but sadly not surprising.

Innovations

The human genome project has a lot of information to give, perhaps not all of which we would really like to know ... However, one interesting development is something many will have observed in their own clinical practice, that is, that not all medication works on all people in the same way, or even at all. A team from UCL and Liverpool are visiting the role of pharmacogenomics and have noted that there may be differences in the way people of differing genetic heritage metabolise analgesia. We await more detail from this team as it becomes available.⁷

COVID

The consequences of COVID at a societal and individual level continue to unfold around us. The incidence of musculoskeletal pain, alongside sleep disturbance and anxiety, for those with established chronic musculoskeletal pain may be worsened, as demonstrated in a Spanish case-controlled study of 368 people admitted to hospital with COVID in 2020.⁸ The association of COVID with peripheral neuropathy continues to be investigated. A 2020 US survey of 542 people who had a positive test for COVID noted the increased incidence of peripheral pain or paraesthesia at up to 90 days after testing positive.⁹

Insights from an early study of non-human primates (macaques) infected with COVID appear to support a developing understanding of the neuropathogenesis associated with COVID and long COVID.¹⁰ This small US study of macaques found that post-mortem, there were observable changes in brain tissue including neuroinflammation, evidence of brain hypoxic-ischaemia and apoptosis; noteworthy is that these were found in animals that had not had severe respiratory disease. Longitudinal human data will most likely help us achieve a more rounded picture of the factors surrounding COVID and its implications for pain management practice.

Magic

Who of a certain generation has not heard of magic mushrooms? The concept of using psychotropic or hallucinogenic compounds to escape reality was once the province of the *rock and roll* and *hippy* generations. Following its discovery by Albert Hoffman,¹¹ the use of lysergic acid diethylamide (LSD) was partnered with psychotherapy in the 1950s and 1960s attracting much attention when it became the province of Hollywood and the movie set. Now, we have the rediscovery of magic mushrooms, or rather one of its constituent chemical compounds, psilocybin. The evidence from clinical trials in the United States suggests a potential in psilocybin for the treatment of depression, obsessive-compulsive disorder (OCD), smoking and alcoholism.^{12–14} It will be some time before psilocybin in whatever form becomes licensed by the UK Medicines and Healthcare Products

Regulatory Agency. In the meantime, foraging of wild UK plants and fungi continues.¹⁵

Happy foraging this summer, everyone. I personally will stick to gathering sloes, blackberries, enjoying the blossoming hedgerows in country lanes and generally just walking to get my vitamin D for mood enhancement!

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Full mindfulness-teacher training pathway and courses on pain management programmes: why it may all be worth it

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As already described by Williams¹ in this same publication, there is a growing appetite for the provision of mindfulness training in order for staff to deliver mindfulness teaching on Pain Management Programmes (PMPs). With this, there is also a debate around what should be the minimum required standards for training pain management staff to teach mindfulness. In addition, the recent guidance on chronic primary pain² made recommendations for more research into both the clinical effectiveness and cost-effectiveness of mindfulness. In this article, we will share our experience from our ongoing audit of clinical outcomes of having various members of our multidisciplinary team (MDT) trained in the necessary competences to provide full 8-week mindfulness courses within a multidisciplinary secondary outpatient pain management and rehabilitation service. We will also reflect on how we have grown to align to these high standards of training for PMP staff wishing to teach mindfulness, bearing in mind that they are believed to be the good practice standards required by most registered mindfulness teachers and supervisors.

The decision to require staff to complete a full mindfulness training programme was taken in 2009. There was an awareness then of the need to maintain quality, safety, efficiency and reputation, but also a context in which, when we talked to patients about mindfulness, they would often be suspicious or reject it completely because of a preconception that it was something abstract, spiritual and cult-like. In the more recent past, we found ourselves having to work hard to undo what we believed to be misunderstandings or

misconceptions about mindfulness, how and why it works, and what it may support patients to achieve.

In this article, we make a case against diluting, duplicating or reinventing these standards. As such, we will start by giving a background on our service that may assist other similar services to consider these standards, including costings from our initial pilot, as well as our continuous-sample data, including subjective patient feedback and psychometric data.

We then move on to describing our reasoning for choosing to invest in mindfulness-courses, when the evidence base is still developing, before touching upon the issues and complexities around competencies that are still yet to be addressed and resolved. We conclude with added reflections and our vision going forward.

Our service

The Jersey Pain Management Service caters for an island population of 110,000. The team wraps an MDT around clients with varying needs and of varying complexity. Bearing in mind the methodological limitations of data collected within the clinical reality, our provision of an 8-week mindfulness course has proven to be a good investment, both in terms of clinically significant outcomes and in terms of cost savings, winning a Quality Improvement Award in the 'Value for Money' category for Jersey's Public Healthcare system, which subsequently led us to presenting it at British Pain Society Annual Scientific Meeting (BPS ASM).³

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Table 1. Staff and facilities savings.

	Pre-group (individual work)	2016 5-year projections
Clinical packages delivery hours	1,125	6,690 (87% retention)
N completed full treatment	70	435 (+621%)
Total staff cost	£295,920	£305,565
Completed unit treatment cost <i>per patient</i>	£803	£140 (82% saving)
Cost of facilities	£20,550 (inc. cost of DNAs)	£5,120
Theoretical staff provision change: @6,690 hours	£249,484	–£180,984
Theoretical facilities change: @6,690 hours	£100,350	–£95,230

In 2016, we had piloted a move from treating patients on a 1:1 basis, at that point receiving some mindfulness training within cognitive behaviour therapy (CBT)- and acceptance and commitment therapy (ACT)-based interventions, to a group provision of a fully accredited mindfulness course designed by the 'Breathworks CIC' organisation. We were fully aware of the developing evidence, the absence of obvious support from guidance, the need for more data and research and, therefore, established a specific service pathway into the mindfulness course which minimised attrition (16%) and enabled us to evaluate projected staff and facilities savings (see Table 1). This work was also acknowledged in the States of Jersey Health and Social Services Department Business Plan,⁴ thus highlighting the initiative's support at an organisational level.

While initially only our consultant clinical psychologist trained to teach, he has since been followed by one of our pain specialist nurses, our consultant physiotherapist and our assistant psychologist, who have all completed the training pathway. Based on our set group capacity of eight participants (online courses are cheaper, set at a maximum of 15 participants), our current per-patient cost of courses, including add-on staff costs, range between £90.42 and £139.14 for 16 hours of training per patient, depending on the grade of the staff delivering it. This does not include the yearly cost of required CPD and top-up retreats, which must also be factored in and form part of good governance and quality assurance. Currently, this adds an average cost of approximately £30 GBP per patient. By providing full courses in a group format, we have been able to train large numbers of patients in mindfulness and have also utilised this as stabilisation and preparatory work for more intensive pain management programmes. Figure 1 highlights the number of patients who were psychologically screened.

Figure 2 subsequently reports on subjective patient-reported change on completion of the course.

Figures 3–8 also reported on the distribution of clinically and statistically significant changes on various measures, as recommended by Morley.⁵

The patients' self-reported subjective change, at the end of the 8-week course, compared with the start of the course, is given as follows:

41% of participants report a 30% or greater reduction in pain intensity, while 28% of participants report a 50% improvement or greater.
 57% report a 30% or greater reduction in pain interference and 40% report a 50% improvement or greater.
 70% report a 30% or greater improvement in their subjective resilience and 41% report a 50% improvement or greater.
 3% or less percent report significant deterioration across any of the above domains.

As the service offers multiple multidisciplinary packages that are tailored to the patient's assessment-established needs, long-term follow-up data are not available or is typically confounded by the patient's subsequent attendance to other packages within the clinic. This remains a limitation of this data; however, data on outcomes are shared routinely and individually with our patients.

Figures 3–9 show the distribution of statistically reliable and clinically significant changes as mentioned earlier. In our case, this takes into account the change (improvement/deterioration) reported pre-/posttreatment, being beyond the standard error of measurement (SeM) and/or at least within two standard deviations (SDs) of the mean of a non-clinical population, at least two SDs away from the mean of a clinical 'Criterion a', non-clinical 'Criterion b' for the various measures utilised in our service^{6–8,10–15} or the (adjusted) average of the two 'Criterion c' (used where clinical and non-clinical norms are available and where the distributions of the scores overlap).

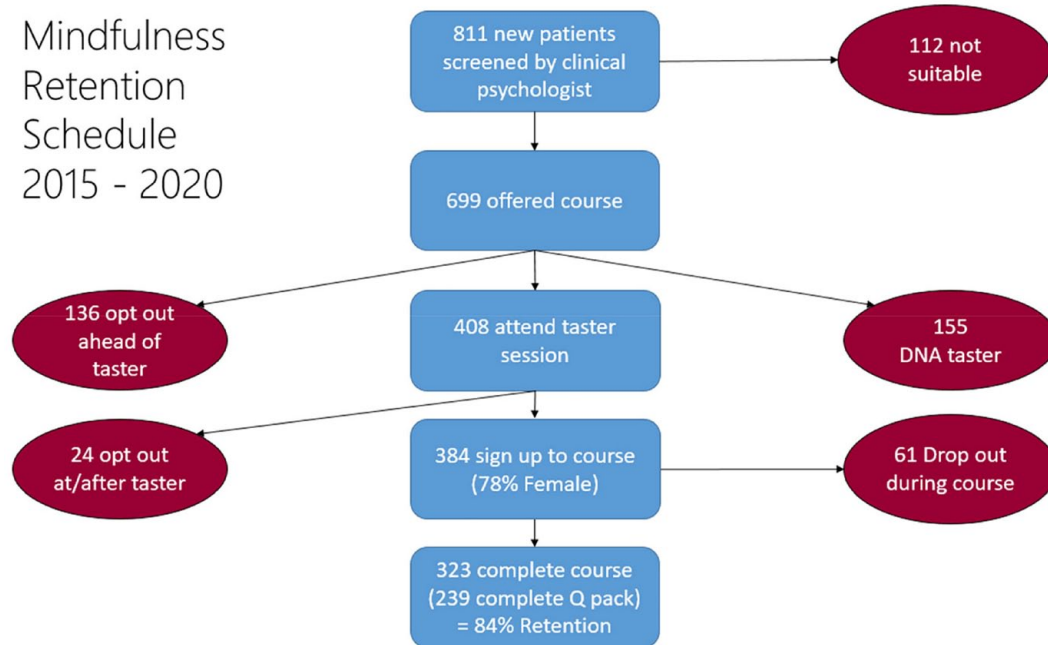
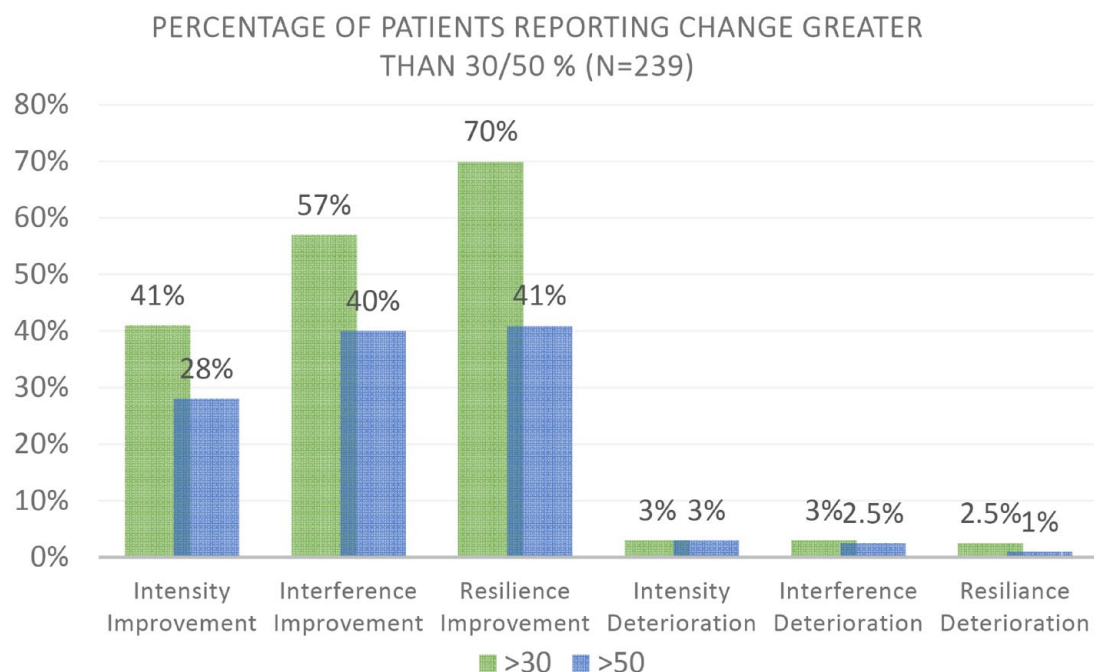
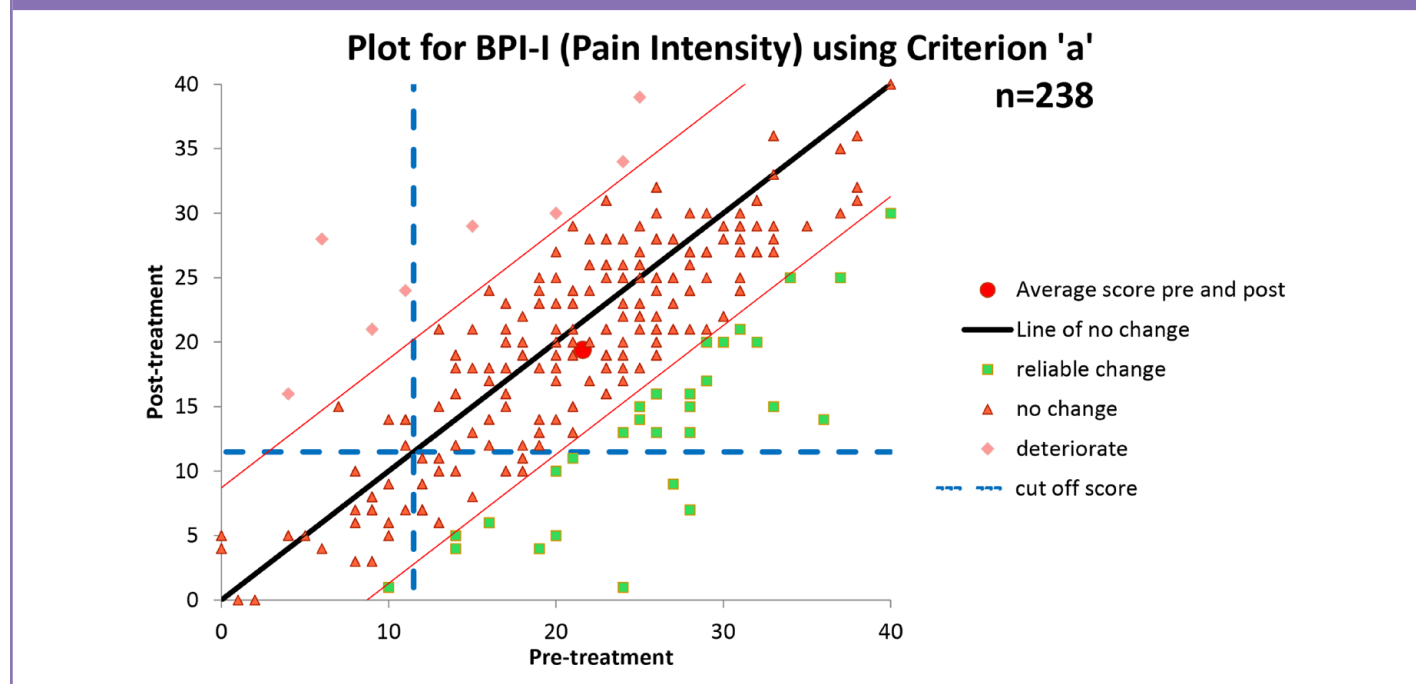
Figure 1. Consort diagram of continuous sample of patients screened and directed to mindfulness courses.**Figure 2.** Clinical and patient subjective outcomes since and including the initial pilot and shows subjective self-reported improvement and deterioration (–100% to 100%).

Figure 3. Brief Pain Inventory⁶ – Pain Intensity Subscale – pre and post scores for whole sample.

Figures 3–9 show the numbers of patients reporting statistically reliable change and clinically significant change across a number of domains including, pain intensity, interference, depression, catastrophizing, self-efficacy, as well as WHO 5 (health domains) and self-compassion.

Why Breathworks Mindfulness courses in our service?

Our service made the decision to provide a stand-alone pain-explicit mindfulness package which somewhat strayed from the Mindfulness-Based Stress Reduction (MBSR)¹⁷ and Mindfulness-Based Cognitive Therapy (MBCT)¹⁸ packages: the Breathworks Mindfulness-Based Pain Management (MBPM) based on the Mindfulness for Health Book and manual.¹⁹

Mindfulness was first introduced into the clinic by our Consultant Clinical Psychologist after his ACT supervisor suggested he attended a 2-day introduction to mindfulness for healthcare professionals in 2008. At this event, he happened to meet Vidyamala Burch and Sona Fricker, founders and directors of Breathworks C.I.C. Vidyamala is a pain sufferer who had discovered the benefits of mindfulness practice, initially to help her manage her own pain, and went on to develop the MBPM course. She has also been awarded honorary membership at the BPS ASM.

Vidyamala developed a package consisting of components of MBSR, MBCT, aspects of PMPs, such as pacing, as well as contributing the expertise of lived experience and a mindfulness practitioner and trainer. The package runs with high fidelity across practitioners, linked partly to the finely standardised teachers' manual that teachers in training receive and are coached to deliver. It also includes ACT metaphors, as well as elements of compassion-focused principles²⁰ and elements from Mark Williams' work on psychological processes in mindfulness.²¹

In the process of considering teacher training options, we were aware that MBSR and MBCT led the way. However, MBPM offered our service the opportunity to provide mindfulness with mindfulness-translated elements of PMP-typical components in a way other mindfulness packages did not.

In the Breathworks process, the client is first taught the theoretical elements and then is shown how to apply them via formal meditations and everyday 'habit releasers'. To use a metaphor, it is a bit like a driver's licence: meditation can be seen as driving practice, while the theoretical understanding applied to the meditation will help improve the driving skills. We felt that the MBPM package had the relevant pain specific 'theory' to make our patients the best possible 'drivers'. It also addressed the many anecdotal observations of our patients,

Figure 4. Brief Pain Inventory – Pain Interference Subscale – pre and post scores for whole sample.

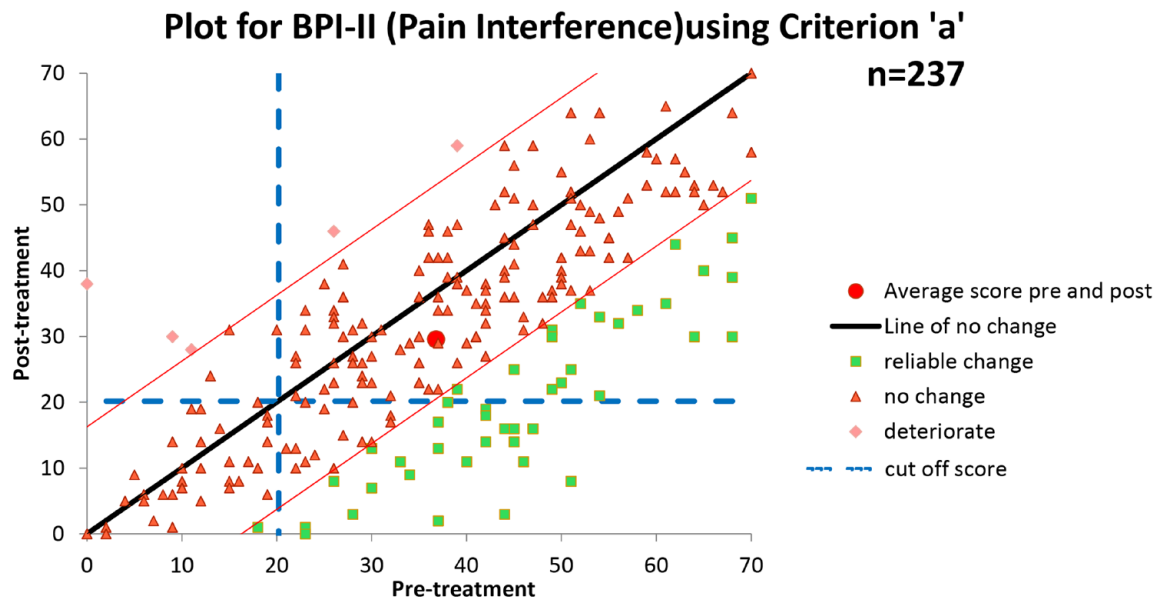
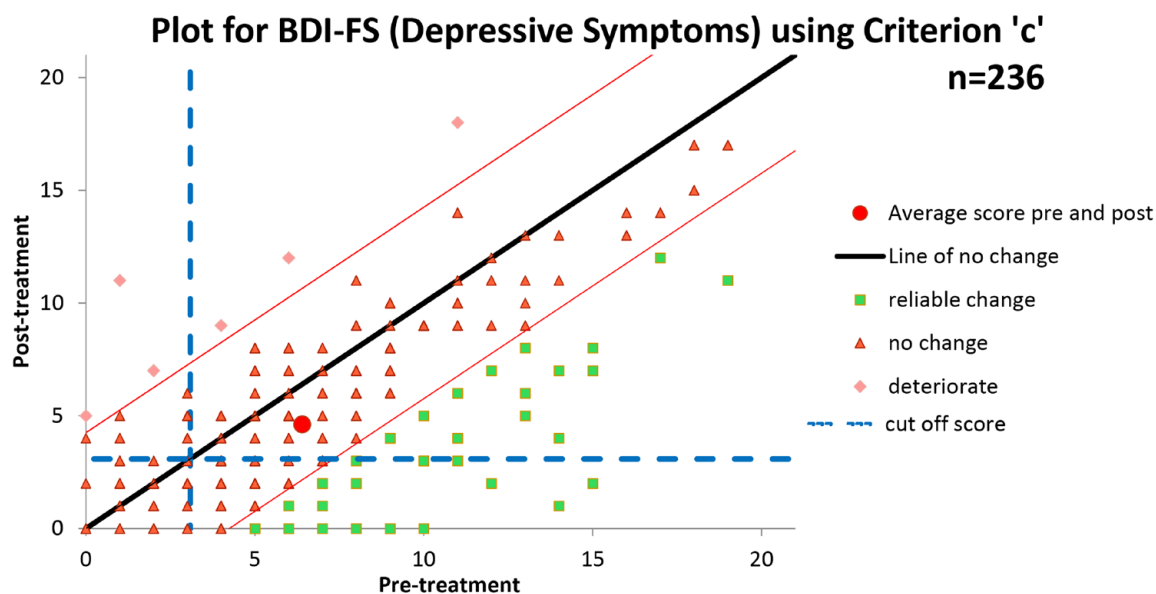
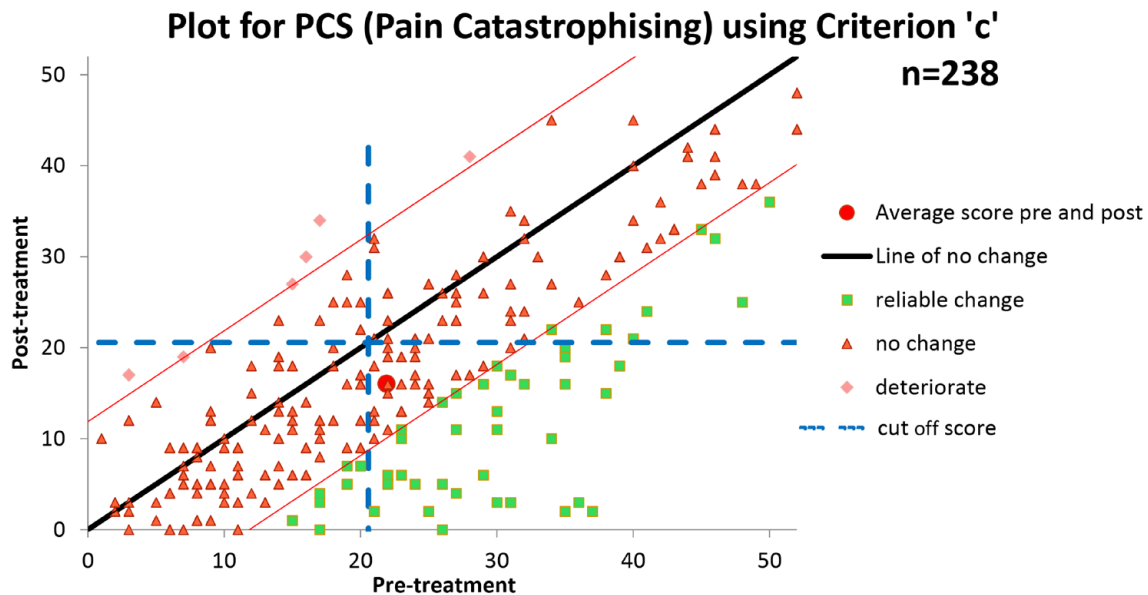
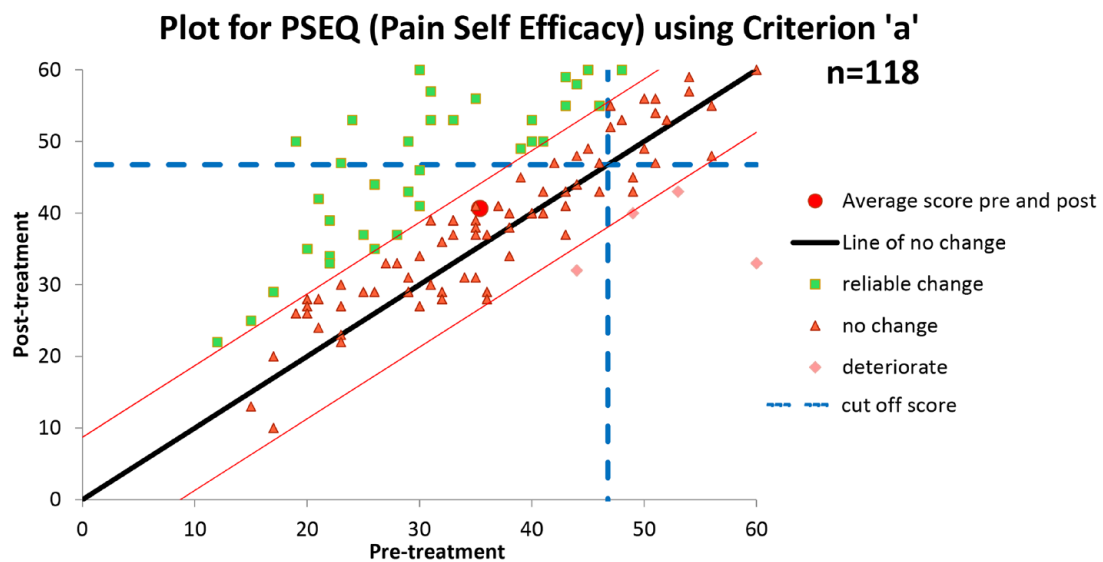
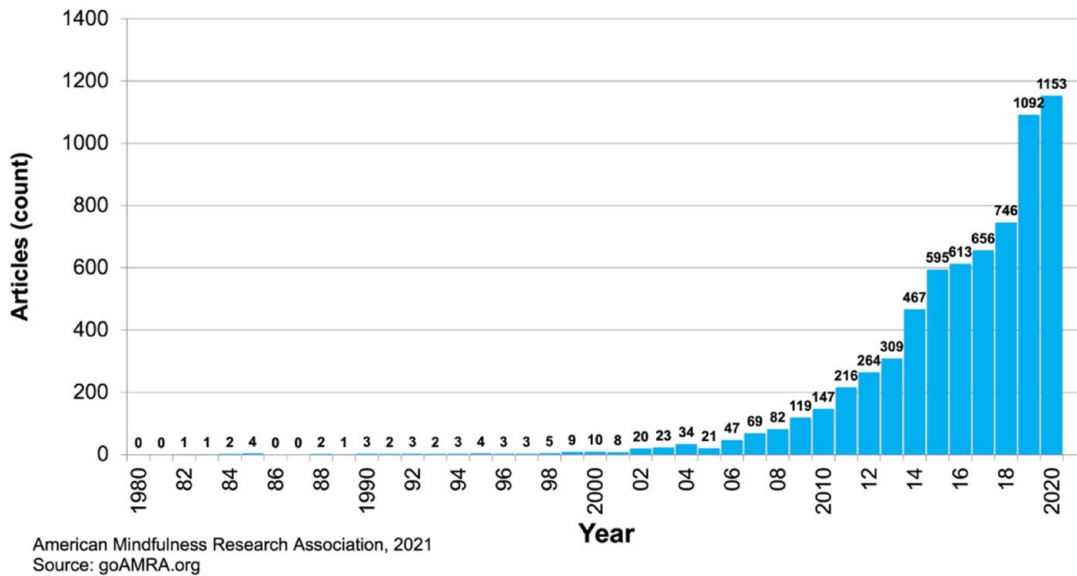
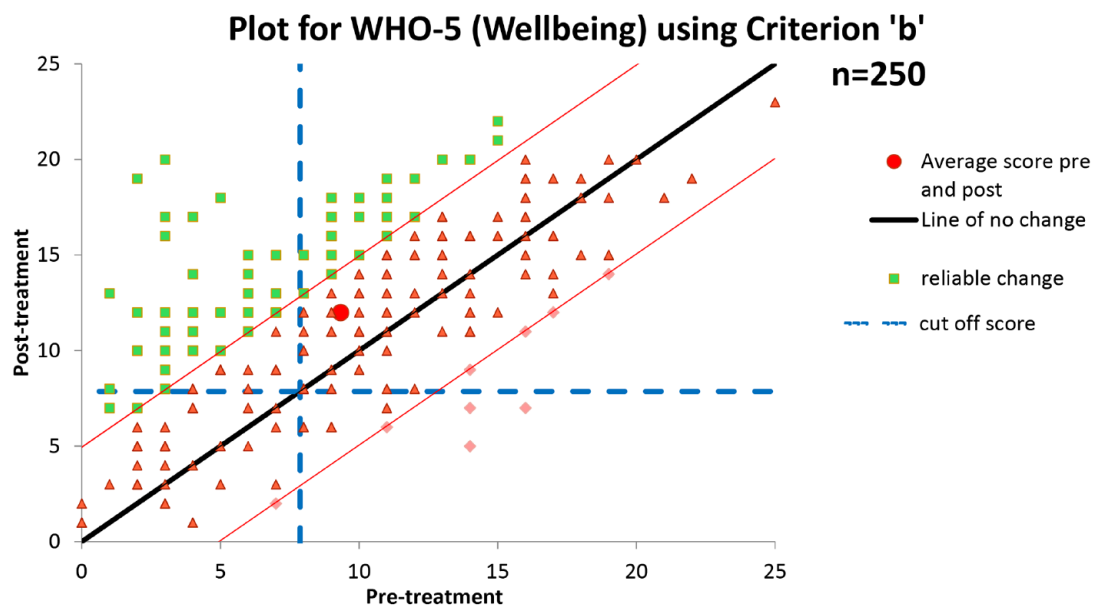
Figure 5. Beck Depression Inventory – Fast Screen (BDI-FS)⁷ pre and post scores for whole sample.

Figure 6. Pain Catastrophizing Scale – pre and post scores for whole sample.**Figure 7.** Pain Self-Efficacy Questionnaire⁸ – pre and post scores for whole sample.

who had attended a stress-focussed mindfulness package (MBCT/MBSR), that this was helpful for stress but had nothing to do with pain. Indeed, we are aware that MBCT has been adapted for pain more recently.²²

The American Mindfulness Research Association reports that research into mindfulness has grown from one single journal article in 1982, to 1,153 scientific publications in 2020,²³ so it is understandable how such a wave of interest has also permeated

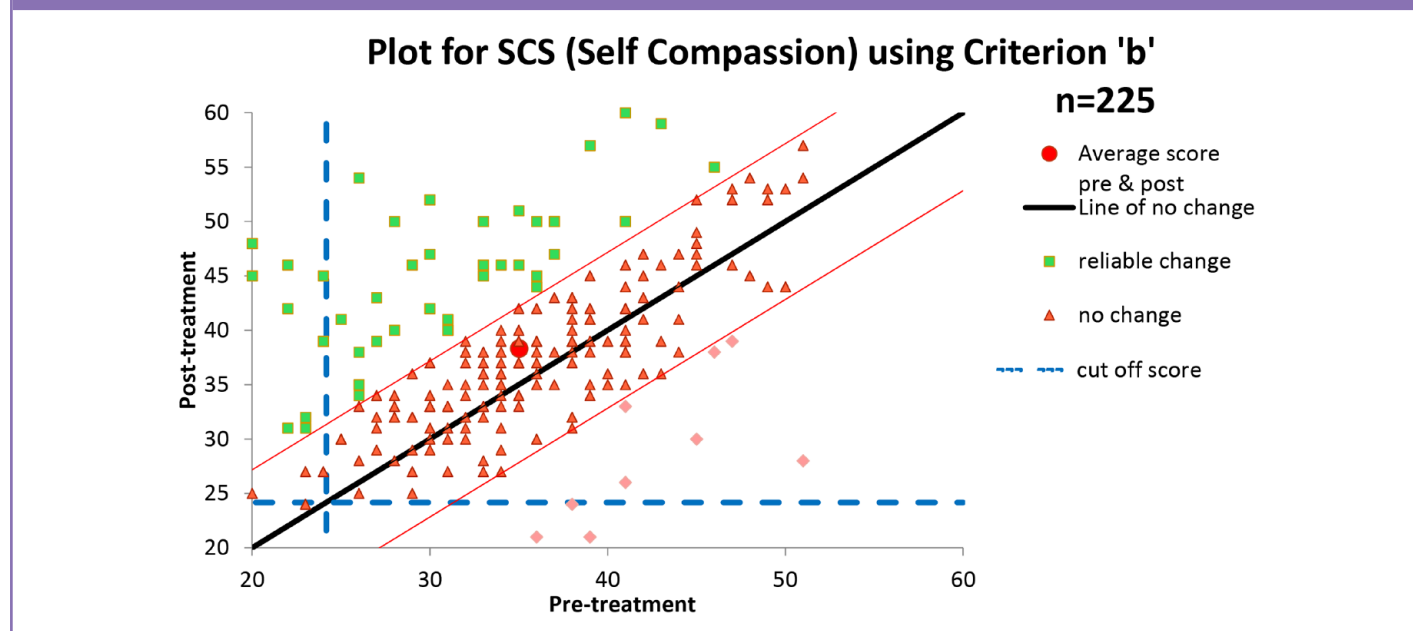
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"Mindfulness" journal article titles published by year: 1980-2020**Figure 8.** World Health Organization – Five Well-Being Index⁹ – pre and post scores for whole sample.

the world of Pain Management Programmes, despite its initial gravitation in the UK towards mental health difficulties.

The first published Westernised mindfulness study¹⁷ was actually delivered to pain patients as a low-cost programme,

US\$100 per patient at the time. This early non-controlled study reported clinically significant improvements on a pain rating index $\geq 33\%$ in 65% of the sample and $\geq 50\%$ in 50% of the sample. However, MBSR then evolved and gained the greatest popularity within mental health settings.

Figure 9. Self Compassion Scale (SCS)¹⁶ – pre and post scores for whole sample.

While our clinic did consider utilising MBSR and MBCT packages, regular clinical observations gave us pause. Several pain patients coming through our service, who had attended mindfulness courses, often reported that either they had found it helpful for depression but not pain, or that they felt that in being referred to a course 'they were trying to tell me that pain is all in my mind'. Patients also reported concerns about being physically uncomfortable or unable to do such practices.

In the end, we opted for the MBPM approach, mostly because it focused specifically on pain while also meeting the minimum requirements set by the British Association of Mindfulness-Based Approaches (BAMBA).²⁴ The BAMBA requirements are the output from the collaboration of practitioners, researchers and teachers on good practice standards to teach, supervise and train others. As such, reinventing the wheel, ignoring or diluting these competences always comes at the risk of reduced efficacy or even harm.

As the provision of mindfulness expanded in our service, it felt appropriate for our consultant clinical psychologist to undertake the necessary training to develop the explicit competency dimensions for supervising others, so that we can now manage the supervision of our mindfulness practitioners in-house, further reducing costs. This training, referred to as Mindfulness-Based Interventions, Teacher Assessment Criteria (MBI-TAC) was developed in collaboration by Oxford, Bangor

and Exeter Universities and recently reviewed²⁵ to also include Liverpool John Moores, Warwick Universities and East Coast Mindfulness.

Competencies and complexities to resolve

In terms of considering competencies, it may be helpful to take a step back and be aware of what mindfulness specifically contributes to the treatment of chronic pain and the current limitations associated with the current evidence base.

Meta-analytic evidence of studies, including ACT and mindfulness-based approaches (MBAs), reports equal effectiveness to CBT, with MBAs reporting improvements both in terms of symptom reduction and in emotional functioning. The same meta-analysis, however, also called for greater integration of ACT and MBAs (p. 182)²⁶ and suggested that ACT processes offered a helpful platform for establishing what MBAs are actually targeting. This would help ensure explicit intention to treat and that interventions are targeted and replicable, as well as avoiding unnecessary duplication and, ultimately, avoiding potential harm.

A more recent review of mindfulness-based mechanisms, in relation to domains of functioning of all types of MBAs for chronic pain,²⁷ recommended improved integration of existing mindfulness constructs into future treatment provision. This is, therefore, an essential step prior to considering minimum

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competencies on both what and how to learn to teach it. Furthermore, a systematic review and meta-analysis²⁸ specifically focussed on MBCT and MBSR for chronic pain, and concluded that there is 'limited evidence for effectiveness of mindfulness-based interventions for patients with chronic pain'.

Possible factors limiting the findings of the mentioned meta-analysis included poor retention, rarity of economic outcomes, uncertainty around participants' actual engagement and frequency of home daily practice and the arbitrary removal of MBSR or MBCT components, with obvious treatment-fidelity issues, particularly considering the absence of explicit process-targeting. More importantly, only two studies in the meta-analysis included programme facilitators with specific mindfulness training or experience in delivering interventions to chronic pain populations. In the context of the current discussion, this is an absolutely essential consideration.

It is also important to acknowledge that some research within the MBCT context suggests that teacher competence is not significantly associated with adherence, improvement in depressive symptoms or relapse in depression.²⁹

At face value, this evidence may undermine our call for tighter adherence to existing competencies, but it also brings into sharp relief a broader problem within much of the research literature: while there are well established standards for those wishing to teach mindfulness (as described earlier), when looking at the research literature, adherence to these standards in the majority of studies is frequently not reported (both in the training of the practitioners and the fidelity to the treatment packages).

When it is reported, frequent deviations are reported and without a rationale provided. This has significant implications regarding how certain we can be about the effects of teacher competence and only serves to reinforce the need for adherence to an agreed framework for the training of practitioners as well as routinely reporting adherence to these standards in the research literature.

Establishing agreed competencies for the training of mindfulness teachers as well as measuring and reporting adherence to these standards, in the research literature, is therefore a necessary foundation ahead of establishing the appropriate training requirements and competence levels for PMP staff. Failing to do this would lead to a heterogenous set of teaching practices likely to pose challenges from a governance perspective (safety, quality, efficiency), and with implications for our ability to compare and commission discrete mindfulness components of PMPs.

Conclusion and reflections

It appears that we are still a long way from being able to say what the underlying change processes at work in mindfulness courses actually are. We would therefore suggest that we should be very cautious about watering down the established competencies, required to teach in the name of affordability.

From our clinic's perspective, while we are aware of the theoretical and outcome-research limitations of mindfulness in chronic pain, and the current absence of explicit process agreement and targeting, we remain somewhat reassured by our service data that continues to offer good value in several domains:

Good retention and completion of 84% (N=323; n = 239 complete data sets – 74% data capture). Our criteria for course completion is set at 75% attendance, whereas in the aforementioned study on competence, it was set at 50%. We observe improved objective and subjective outcomes, minimal side effects and favourable contribution on our service treatment pathway, despite our patients regularly reporting Adverse Childhood Experiences and trauma. Based on qualitative feedback, the course is highly valued by our clients and clinicians alike, which certainly is encouraging from the point of view of co-production recommendations.²⁹

It also offers an in-house (further savings) opportunity for members of the team and colleagues within the organisation to attend a full accredited mindfulness course. Our model allows staff the opportunity to receive supervision in-house and to incorporate aspects of mindfulness in their practice.

It is, therefore, in line with quality, safety and efficiency standards on improving healthcare, such as those recommended by the Institute of Health Improvement.³⁰ It also provides the minimum requirements to attendees to then engage, if they so wish, on a teacher-training pathway.

In order to ensure efficiency, quality and to reduce the risk of duplication or harm, an informed assessment of what mindfulness component (or full course) is likely to be most beneficial, is an essential first step in achieving the full potential of mindfulness within the PMP context.

Such assessment would require the following:

1. A theoretically valid model(s) with clearly targeted and evaluated processes and outcomes that are contextually relevant to pain sufferers.

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2. An evidence-based demonstration of the most appropriate vehicle for provision (whole mindfulness packages or components thereof).

Once this is in place, establishing what constitutes an appropriate competency criteria/framework will be more likely to be of practical benefit.

As with any other purchase, cost is an essential consideration, but evaluation in our local context supports both the provision of full mindfulness courses and the training of different disciplines. This is in line with the recommendations for mindfulness provision in psychological services treating large numbers of patients and targeting depression. Given the difficulty for patients to access such services, pain services may also start making their bid to have more wrap-round provision without unnecessary hand offs to psychological services that tend to re-assess, often disagree with and ultimately separate care from the whole-person approach pain services have expertise in providing.

In the short term, it would be helpful to undertake a UK-wide audit of organisations delivering discrete mindfulness training or practices, dividing the data by trained versus non-trained and by the different approaches (stress and pain specific). In the longer term, it would be beneficial to consider an all-inclusive working group to drive a UK-wide collaboration of all PMPs and related stakeholders, large and small, within their individual contexts. Here, the aim should be to collect, analyse and compare data, and to produce research on mindfulness courses with solid theoretical foundations within the specialist pain factors considered earlier. The information provided would help us to develop, or sign up more confidently to, specific competencies, involving co-production with all relevant stakeholders, pain sufferers, clinicians, researchers and community and voluntary sectors alike. Going forward, our plan is to carry out formal research to compare process change provided by mindfulness courses, utilising ACT-process measures.

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An untouched life

Doug Chinnery



'Ninety four in the Shade' by Sir Lawrence Alma-Tadema, 1876. Style: Romanticism. Location: Fitzwilliam Museum (University of Cambridge), Cambridge, UK. Used as a book cover for the 'The journal of a disappointed man' by WNP Barbellion, the nom de plume of Bruce Frederick Cummings.

Stretching out into shadowed gloom
Yearning for the brief relief of a warming touch
Of comfort found in entwined fingers
The reassuring empathy of soul shared tears
But finding only the cold dark void of loneliness
The isolation
The degradation
Of rejection and an untouched life
Of salvation lying so close
Yet forever unreachable
And so the light goes out
And the night exults again

Notes on the artist, Sir Lawrence Alma-Tadema



Lawrence Alma-Tadema is one of the most highly renowned romantic artists of late 19th century Britain. He was born in the Netherlands as Lourens Tadema, to the family of the town notary. Later, as he tried to make his niche in the art world, he changed the spelling of his first name to the more English 'Lawrence', and included his middle name 'Alma' as part of his surname, so he would be listed among the 'A's' in exhibition catalogues.

As a child, it was decided that Alma-Tadema would pursue the career of a lawyer, but he suffered a mental and physical breakdown when he was 15 years old. He was diagnosed as consumptive, given a short time to live, and thus free to pursue a life of leisure and pleasure. Once left to his own devices, he decided to study art, as his mother had paid for art lessons in his earlier childhood and it was one of his interests. He regained his health and studied at the Royal Academy of Antwerp in 1852, where he won several

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respected awards. His first major work was exhibited in 1858, and it won much critical praise, and creating a sensation in the art world. By 1862, he set up in his own studio to pursue his individual career in art.

In 1869, Alma-Tadema lost his wife of 6 years to smallpox. Disconsolate and depressed, he ceased painting and his health was failing. Under the advice of his physician, he travelled to England for a medical diagnosis, where he was invited to the house of a fellow painter, Ford Madox Brown. It was here that he laid eyes on Laura Theresa Epps, who was 17 at the time, and fell madly in love with her. Alma-Tadema took advantage of the outbreak of the Franco-Prussian war to relocate to England, where he wasted no time contacting Laura and contracting her in private art lessons. It was during one of these lessons that Alma-Tadema proposed, and they were married shortly thereafter. Alma-Tadema was 34 years old, and the bride 18.

Alma-Tadema spent the next part of his life travelling through Europe, and enjoying the continued success of his paintings. As a man, his bursts of bad temper were eased by his extroverted, warm personality and sense of mischief. A perfectionist and obsessive worker, he also innovated a new numbering technique, which made it difficult for forgers to pass off unoriginal works. In his later years, although his artistic output decreased somewhat, he enjoyed continued success,

eventually becoming one of the wealthiest painters of the 19th century. He was knighted in England in 1899.

In 1912, Alma-Tadema travelled to Germany to undergo treatment for a stomach ulcer, and died in Germany at the age of 76. After his death, his work was mostly ignored. Due to the drastic changes taking place in art, Alma-Tadema's artistic genius would not come into the public eye again until the 1960s. His meticulous work had since been used as source material for dozens of Hollywood movies.

Sir Lawrence Alma-Tadema, OM, RA (/ˈælmə ˈtædeɪmə/; born Lourens Alma Tadema Dutch pronunciation: [ˈlurəns ˈalmaː ˈtaːdə,maː]; 8 January 1836–25 June 1912) was a Dutch painter of special British denizenship. Born in Dronrijp, the Netherlands, and trained at the Royal Academy of Antwerp, Belgium, he settled in England in 1870 and spent the rest of his life there. A classical-subject painter, he became famous for his depictions of the luxury and decadence of the Roman Empire, with languorous figures set in fabulous marbled interiors or against a backdrop of dazzling blue Mediterranean Sea and sky. Although admired during his lifetime for his draftsmanship and depictions of Classical antiquity, his work fell into disrepute after his death, and only since the 1960s has it been re-evaluated for its importance within 19th-century British art (Wikipedia/WikiArt; Public Domain).

Global variance in pain prevalence: what does it tell us?

Alan Fayaz *Consultant in Pain Medicine, Anaesthesia and Perioperative Care at UCLH; Honorary Associate Professor, University College London*

Nociception is constant, but pain is, without a doubt, a social construct – as demonstrated time and again in tattoo parlours, gymnastic stadiums, religious ceremonies and so on. How meaningful is it, therefore, to compare pain experiences across different populations?

In the March edition of the International Association for the Study of Pain (IASP) circular 'Pain', Zachary Zimmer and colleagues presented a global estimate for pain prevalence, generated from a standardised survey sent to residents in 70 countries.¹ Unadjusted pain prevalence weighed in at just under 28% globally. So far, so unexciting. For at least the last 30 years or so, national estimates for (chronic) pain prevalence have tended to sit between the 30% to 40% mark whether reported by residents in low-, middle-, or high-income nations. What was more remarkable, in the Zimmer report, was the notable range in estimates; from a nadir of 9.9% (China) to a peak of 50.3% (Morocco).

How can we explain this degree of variation? The authors of the report analysed data from nationally representative population samples in 52 of the 70 countries participating in the World Health Surveyⁱ (WHS), conducted by the World Health Organization between 2002 and 2004. It is, therefore, relatively unlikely that methodological factors accounted, to a great degree, for the fivefold variations in national estimates; although without question, social, religious and cultural beliefs will influence pain perception, pain semantics and pain reporting – and no amount of standardisation will account for the potential 'Western' bias of most published research. Furthermore, geographical variations in reporting may reflect fundamental underlying differences in the demographics of studied populations. In the report by Zimmer et al., residents of European countries were the most likely to report pain, whereas those living in countries in the Western Pacific region were least likely. As might be expected, female sex, increasing age and rural versus urban setting consistently influenced pain prevalence, but even *after* estimates were adjusted for these factors, significant geographical variations in pain persisted.

To better understand potential social drivers for variance the authors combined data on pain prevalence with macro-political and socio-economic determinants of health. Data were derived from a series of global data banks and include metrics estimating gross national income, national economic and gender inequality, years in education, life expectancy, health expenditure, population density and a measure of 'quality of governance'.

The juice:

- Living in a country with a higher level of income inequality predicts higher odds of reporting pain (a 1SD change in GNI is associated with 21% to 26% higher odds of pain).
- Population density is associated with 26% higher odds of reporting pain.
- Pain prevalence is 31% higher for each standard unit of gender inequality – and interestingly both men and women are disadvantaged by country-level gender inequality such that both are more likely to report pain in countries with high gender inequality compared with countries with low gender inequality.
- A standard unit increase in life expectancy is associated with 21% lower odds of pain.
- Covariates *not* significantly associated with the odds of reporting pain include 'quality of governance', average level of education, total labour force participation, health expenditure and gross national income.

So, it would seem that societal inequality is a powerful predictor of pain reporting, perhaps even more so in populations that are closely packed and arguably forced to acknowledge said inequalities more fervently; as the authors point out – one can only assume that psycho/behavioural influences would at least in part account for remaining variability. In fact, interpretation of the data itself will be subject to the readers' socio-cultural biases (equality good – inequality bad, etc.). What remains now is to navigate the socio-anthropological factors that impact pain prevalence/severity – and therefore consider how these findings might influence our respective approaches to managing pain.

Global variance in pain prevalence: what does it tell us?

Note

- i. The WHS measure pain by asking participants to report the occurrence of 'bodily aches and pain' in the 30 days leading up to the survey. Where pain was reported, it was further qualified into none/mild and moderate/severe or extreme.

Reference

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Development and early experience of a fast-track pathway for radiofrequency denervation in lumbar spondylosis

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The advent of the Coronavirus pandemic caused huge disruption to the provision of pain management services in the United Kingdom. The redeployment of clinicians to pandemic-related activity in many cases led to the cessation of pain clinics and intervention lists for a considerable time period. With resumption of activity, typically in the summer of 2020, prior to any available vaccine, clinical practice was also affected: the March 2020 'FPM response to concern related to the safety of steroids injected as part of pain procedures during the current COVID-19 virus pandemic'¹ advised caution regarding the use of steroids injected as part of pain procedures. A July 2020 update² discussed the lack of evidence to quantify the risk associated with steroid use for pain intervention procedures, should a patient come into contact with COVID-19 during the period of immunosuppression that inevitably occurs after their use.

With the mass vaccination of the adult UK population beginning in December 2020, the clinical picture evolved further. Current practice in our trust is based on the 'Arthritis and Musculoskeletal Alliance principles regarding COVID-19 vaccination in musculoskeletal and rheumatology patients'.³ In each case the benefits and risks must be discussed with the patient to arrive at a shared decision. Patients are recommended to have completed their full vaccination course more than 2 weeks prior; however, clinicians can consider the use of corticosteroids more than 2 weeks before or after either vaccine administration. The same principles apply to additional doses.

There remains a significant unvaccinated minority of the population in whom the risks of corticosteroids may outweigh the benefits.

In our trust, patients with lumbar spondylosis are treated according to a pathway. Initial management consists of lifestyle modifications where necessary, physiotherapy and screening for red flags. After rehabilitation, those with pain corresponding to a numerical rating scale (NRS) score >5/10 are booked for diagnostic posterior medial branch blocks (dPMBB). Prior to the pandemic, these were typically performed with local anaesthetic (LA) and corticosteroid, with patients followed up by nurse specialist telephone appointment 6–8 weeks later. If NRS decreased $\geq 50\%$, the patient was deemed eligible for radiofrequency denervation (RFD).

Patients enrolled in the pathway while unvaccinated presented a clinical quandary. Those treated with LA alone received an intervention that likely provided a maximum of 12 to 24 hours relief, followed by a lengthy follow-up period. Despite being asked to keep a pain diary, many struggled to recall if the dPMBB had been beneficial.

As a result, a new assessment proforma was devised (see Appendix 1). After procedure consent was gained, NRS scores were sought in the following scenarios: sitting at rest, standing still, (the following while standing) during lumbar flexion, lumbar lateral rotation and lumbar extension. A Modified Timed Up and Go Test and 30-Second Sit To Stand Test were also performed prior to their procedure.

These tests were then repeated in recovery no less than 30 minutes after completion of dPMBB to allow onset of LA. Any change in range of movement was also noted. In line with

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trust guidelines, a $\geq 50\%$ decrease in NRS score resulted in booking for RFD.

This 'fast-track' assessment method was trialled towards the end of 2020, and subsequently the Modified Timed Up and Go Test and 30-Second Sit To Stand Test were removed from the assessment (see Appendix 2). While they correlated well with the NRS, and arguably might be a more useful real life assessment of efficacy, they were not relevant to our existing funding criteria and took a significant amount of clinician time to perform.

Benefits to the patient include a greatly decreased time to assessment, knowing whether the intervention had worked on the same day, and a direct booking for RFD. Benefits to the pain management department include one less point of clinical contact (nurse telephone follow-up) and the decreased workload associated with such.

Potential downsides include increased workload for the clinician during the list, and the potential for the presence of the performing clinician to influence the patient's response: they may be less likely to report lack of efficacy if the person who performed the procedure is asking.

Our 'fast-track' assessment, born out of clinical necessity, has proved popular with clinicians and patients, and its use remains the preferred method of assessment of dPMBB, even in the fully vaccinated, for described reasons. It has resulted in decreased use of corticosteroids. Theoretically, the fast-track assessment could also be performed in those who have received dPMBB with LA and corticosteroid, allowing potential longer duration of benefit until their denervation, although we have no data for this scenario. The success of our method raises a number of questions: First, are corticosteroids required during dPMBB to assess suitability for RFD? What is the real benefit of a dose of corticosteroid shortly before RFD, which can potentially provide years of relief?

A systematic review and meta-analysis of randomised controlled trials⁴ in chronic non-cancer pain injections found a number needed to treat of 22 for extra-theal injections was required to demonstrate any benefit of corticosteroid and LA over LA alone. Despite statistical significance, the small decrease in pain scores (0.44 units in 0–10 NRS) was considered clinically insignificant. No differences were found in duration of relief, physical functioning, global improvement, satisfaction or quality of life. The review concluded addition of corticosteroid had only small benefits and a potential for harm and cautioned against high doses or series of corticosteroid injections.

The mechanism of action of corticosteroids in non-inflammatory chronic pain remains unclear. In addition to their anti-inflammatory effect, mechanisms may include membrane stabilisation, inhibition of neuropeptide synthesis and blocking of ectopic signals.^{5,6}

LAs alone have been postulated as having effects which last beyond their duration of reversible conduction blockade. It has been proposed that they suppress ectopic discharges and decrease sensitisation,^{7,8} as well as unwinding sensitisation of chronic pain signals in neuroplasticity.^{9–11}

The early results of our fast-track pathway add to the debate of whether addition of corticosteroid to dPMBB is beneficial. Data regarding the proportions of patients who receive either LA alone or LA with corticosteroid who then progress to RFD would be of use and will be the subject of further investigation, in addition to whether clinician-performed assessment of results introduces investigator bias. With a slight increase in clinician workload during an intervention list, there is potential to decrease the number of patient contact points and overall workload. Whether additional support to perform assessments during an intervention list would be beneficial and cost-effective remains to be elucidated.

It would also be beneficial to determine whether this pathway can be applied to those receiving dPMBB with LA and corticosteroid. Is this a viable method to reduce workload to a highly resource-pressured specialty? Our initial experience, which needs to be further verified, suggests this pathway could be beneficial to an important clinical service.

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Appendix 1

Attach patient label here



Fast-track diagnostic PMBB to RFD assessment

Date:	Pre-diagnostic PMBB(s)	Post-diagnostic PMBB(s)
NRS sitting at rest (0–10):		
NRS standing still:		
NRS forward flexion while standing:		
NRS lateral rotation while standing:		
NRS extension while standing:		
Modified Timed Up and Go Test (see below)		
Time (s):		
Assistive device used:	None/cane/walker/other	None/cane/walker/other
Stopped to rest? Y/N		
30-Second Sit To Stand Test (see below)		
Score:		

Modified Timed Up and Go Test method:

A practice trial should be completed before the timed trial.

1. The patient starts in a seated position from an armchair.
2. The patient stands upon command (start clock), walks 3m, turns around, walks back to the chair and sits down.
3. The time stops when the patient is seated.
4. The subject is allowed to use an assistive device. Document the device used.
5. High risk (>13.5s)/not high risk: (<13.5s).

30-Second Sit To Stand Test method:

A practice repetition should be completed before the timed trial.

1. Seat participant in middle of the chair, back straight; feet shoulder width apart on floor, planted slightly back from the knees, one foot slightly in front of the other. Arms are crossed and held against the chest.
2. The participant is encouraged to complete as many full stands as possible within 30 seconds. The participant must sit fully between each stand.
3. Demonstrate the task both slowly and quickly.

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4. Patient uses their arms to complete the test – Score: 0.
5. Score: total number of stands within 30 seconds (>1/2 way up at time counts as full stand). Incorrectly executed stands are not counted.
6. Score > 20: fit individual.

Appendix 2

Attach patient label here



Fast-track diagnostic PMBB to RFD assessment

Date:	Pre-diagnostic PMBB(s)		Post-diagnostic PMBB(s)	
NRS sitting at rest (0–10):				
NRS standing still:				
NRS forward flexion while standing:				
NRS lateral rotation while standing:				
NRS extension while standing:				
Post-procedure range of movement	Decreased		Unchanged	Increased

Five stages experienced by those with chronic illness

Toni Bernhard



Our lives can take an unexpected turn at any moment. Mine did in 2001: I got sick with what the doctors initially diagnosed as an acute viral infection – but have yet to recover. I was a law professor for 22 years at the University of California – Davis until the illness forced me to retire. During those 22 years, I served 6 years as the law school's dean of students. I had a long-standing Buddhist practice and co-led a weekly meditation group with my husband (who's also named Tony!).

Most people who are chronically ill go through some form of these stages

I've been chronically ill for over 18 years (chronic illness includes chronic pain). In 2001, I came down with what appeared to be an acute viral infection but I never recovered. It compromised my immune system, leaving me feeling as if I have the flu 24/7. I call it the flu without the fever.

Not everyone will go through these stages in the same way or in the same order that I have, but I hope this will sound familiar, both to those who are chronically ill and to those who care for them.

Stage 1: the search for a diagnosis and adequate treatment

Getting a diagnosis can take one doctor's visit or it can take dozens. It took me 6 months to be diagnosed with ME/CFS (myalgic encephalomyelitis, also known as chronic fatigue syndrome). However, being diagnosed, I must admit, hasn't helped me much. ME/CFS is a serious illness, but the money isn't there for research into its cause or causes, let alone adequate treatment. (I also live with several other chronic conditions, including a bout with breast cancer, interstitial cystitis and osteoarthritis, but this piece focuses on what I went through when I got sick in 2001 as described above.)

The search for a diagnosis and then adequate treatment is accompanied by the stresses that come with having to navigate the health care system – over and over. It takes its toll, both physically and mentally, even for those of us who are fortunate to have adequate health insurance.

I wrote about this stage in my book, *How to Be Sick*. Since 2001, I have seen over a dozen specialists and my share of alternative medicine practitioners (including five acupuncturists). Very few of these doctors and practitioners were honest with me about what they could offer. Most of them promised to cure me and then, when whatever treatment regime they prescribed didn't work, they wanted me to go away. I call this **the hot potato syndrome**, as people who are sick and in pain get passed from doctor to doctor, from medical practitioner to medical practitioner.

The search for a diagnosis, and then adequate treatment, is a traumatic – and often ongoing – stage in life with chronic illness.

Stage 2: denial

When I became sick in 2001, I expected to recover. So did everyone else in my life – from family to friends to my employer to my colleagues at work. The idea that I had a chronic illness that would change the course of my life at a point when everything was going so well for me, personally and professionally, was unthinkable. When something is unthinkable, denial takes over.

Five stages experienced by those with chronic illness

For me, denial felt as if something were tearing me apart mentally. I was denying *mentally* what I was feeling *physically*. In other words, *I felt sick while I was denying that I was sick*. Imagine if you were eating ice cream while you were denying you were eating ice cream. It's an extreme example, but it gives you a sense of how this contradiction is so harmful mentally and emotionally.

Denial was harmful to me in another way. Because I could not bring myself to believe that a simple viral infection could keep me feeling so sick and in pain, I forced myself to go back to work part-time after taking 6 months off. I was a university teacher. Once back at work, I spent the next 2 years going from my bed to the classroom and then back to my bed when I could pull it off. I held office hours via email.

Even so, sometimes I met with students in my office (I was still committed to doing the best job I could, after all). Those days, I could barely make it back to my bed. I think it's highly possible that continuing to work is one of the reasons I'm still so sick today. (ME/CFS presents with different degrees of severity. Some people can travel if they allow for rest periods. Others are completely bedbound). My illness is on the severe side but I'm not completely bedbound. I spend almost every day at home. If I do go out, it's not for more than an hour or so (unless I get caught at a doctor's appointment). I'm usually on my bed, as I am now, typing this.

Stage 3: worry and fear

When I could no longer deny what was happening, I finally traded the classroom for the bedroom. Unfortunately, denial was replaced by worry and fear. How was this illness going to affect my life? Would I still be able to travel to visit my grown children? (No.) Would we be able to keep our house when we lost our income? (Thankfully, yes, although I know of many people who weren't able to.) What would happen if I developed another health problem? (I did ... the breast cancer I referred to above; even though it exacerbated my chronic illness, I pushed my way through surgery, subsequent treatment, and now, ongoing monitoring – and my prognosis is good.)

And, how would being chronically ill affect my relationships? I am blessed beyond measure to have a loving caregiver – some spouses and partners don't stick around when chronic illness strikes. But, as happens with others, many of my friends drifted away. It took me years to stop feeling bitter about this – to realise it wasn't due to any personal shortcoming on my part. It had to do with other people's own life stories. For example, some people aren't comfortable around illness. I know that those who've 'gone missing' wish me well and, although it's

taken a long time, I've learned to wish them well in return ... and that feels good.

Stage 4: grief

Allowing myself to grieve over what happened to my life was the first step in healing mentally and emotionally. In my experience, you can't grieve when you're in denial or when you're overwhelmed by fear and worry. This is because grieving requires that you give attention to your sadness. You have to make room in your heart for grief, and when you're caught up in denial, worry and fear, there's no room.

As others have pointed out about chronic illness, grieving is not something that arrives, is processed and goes away. It comes and goes throughout the course of pain and illness. It has for me all these years.

Stage 5: the realisation that you have to 'make your own fun'

I used the odd phrase 'make your own fun' in this heading because of a documentary I watched on Fred Rogers of *Mr. Roger's Neighborhood*. It's been many years since our kids were young but, yes, Mr Rogers used to be our neighbour!

He said in an interview that he had a lot of childhood illnesses, including scarlet fever, and so had to spend a lot of time in bed. Then he said: 'And so, I had to make my own fun'.

The moment I heard that, I recognised that it's what I've had to do. It's been a big part of the emotional healing that started for me after the grieving process began. I realised that I needed to make a new life for myself. I saw that my craving to resume my teaching career and to travel with my husband to our favourite places were dreams that were unlikely to come true. It was better for me to find a life of purpose and joy within my limitations. And I think I have. I discovered writing. I embroider, listen to audiobooks and cuddle my dog. When I can, lying on the bed, I use exercise bands as my form of exercise.

I still hope to recover my health – I continue to try new treatments – but my quality of life became better when I started to accept my limitations and when I began to generate self-compassion for those inevitable moments of sadness that arise now and then.

These are the five stages of chronic illness I've experienced over the past 18 plus years. I'm no longer in denial. For the most part, I'm able to keep worry and fear at bay. So, if I start

to fret, for example, over what would happen should my husband be hospitalised, I remind myself that it's foolish to use my precious time worrying about this because no one can predict the future. (This is not to say that it's foolish to plan for such contingencies; my suggestion is to come up with a plan and then, as best you can, put the contingency out of your mind.)

I've had a lot of worries in my life, most of which never happened. (Mark Twain)

I still grieve once in a while and feel unhappy about my fate. I've noticed that these painful emotions are most likely to show up on days when my symptoms have flared. Becoming aware of this has been tremendously helpful. It enables me to say to myself: 'Hold this grief and sadness lightly. You know it's shown up because you're feeling so sick today. When your symptoms subside, so will your emotional pain'.

I never expected to become an author but, faced with learning to live a new life, I wrote *How to Be Sick: A Buddhist-Inspired Guide for the Chronically Ill and Their Caregivers*. Truth be told, I began it as a manual for myself, but when I shared parts of it with others, they encouraged me to turn it into a book. And so I did. To my surprise and delight, it has garnered a worldwide following and has won two Nautilus Book Awards: a Gold Medal in Self-Help/Psychology and a Silver Medal in Memoir. It was also named one of the Best Books of 2010 by Spirituality and Practice.

And in 2018, *How to be Sick* was released in a revised and updated edition. I didn't realise how much work it would be, but I'm glad I did it.

My second book is *How to Wake Up: A Buddhist-Inspired Guide for Navigating Joy and Sorrow*. It offers my understanding of the Buddha's path to peace and well-being in the midst of life's ups and downs. This is a path that all of us can follow regardless of our backgrounds or circumstances. *How to Wake Up* is being widely used as an introduction to Buddhism.

My third book is called *How to Live Well with Chronic Pain and Illness: A Mindful Guide*. Chronic illness – which includes chronic pain – brings with it so many challenges that I wanted to write a book that addresses a broad range of topics. This one does while focusing on how the practices of mindfulness, equanimity and self-compassion can make life as good and joyful as possible in the face of difficulties that can be so overwhelming that I sometimes refer to chronic pain and illness as 'a life upside down'.

I'm active on several social media sites and enjoy maintaining personal relationships with people from all over the world despite my illness. My blog, 'Turning Straw Into Gold', is hosted by Psychology Today online.

My heartfelt wish for all of you is that you find a life of purpose and joy in the midst of your health struggles.

Sick woman by Rembrandt



Sick woman with a large white headdress (Saskia) Rembrandt
Date: c.1641–c.1642 Style: Baroque
Location: National Gallery of Art, Washington, DC, USA.ⁱ

Considered the greatest painter in all of European Art, Rembrandt van Rijn was a Dutch painter and etcher of the Dutch Golden Age. As a child, he had an inclination towards painting, and spent 3 years under the apprenticeship of a local history painter. After another 6-month apprenticeship with painter Jan Pieter Lastman, he opened his own studio. He

began taking art students at his studio at the ripe old age of 21 years old.

In 1631, Rembrandt moved to Amsterdam, which at the time was rapidly expanding, and had great success painting personal portraits. In 1634, he married his wife, Saskia van Uylenberg, and in the same year began taking art students in Amsterdam. Although his public life was on track, his private life was deteriorating. His wife Saskia had their first child, a boy, in 1635, but he died at 2 months of age. Their second child, a girl, died at 3 weeks of age. Their third child, another girl, died before she was a month old. It was only their fourth child, Titus, who would live into adulthood. Saskia herself died after Titus' birth, possibly of consumption.

Although he lived an affluent lifestyle, Rembrandt lived far beyond his means. He had a large mortgage, and spent money on art, prints and rarities, and avoided bankruptcy in 1656 only by selling many of his paintings and his collections of antiquities. Unfortunately, however, the sales price of his collection was disappointing, and he was forced to sell his house and printing press and move to a more modest location. Rembrandt outlived both his son Titus and his common-law wife Hendrickje, with whom he had a daughter Cornelia, and died in 1669. He was buried in an unmarked grave.ⁱⁱ

Notes

- i. <https://www.wikiart.org/en/rembrandt/sick-woman-with-a-large-white-headdress-saskia>
- ii. <https://www.wikiart.org/en/rembrandt>

