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

As already described by Williams[1] 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 pain [2] 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 multi-disciplinary team (MDT) trained in the necessary competences to provide full 8-week mindfulness courses within a multi-disciplinary 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 re-inventing 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 BPS ASM [3]

In 2016, we had piloted a move from treating patients on a 1:1 basis, at that point receiving some mindfulness training within CBT and 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 minimized 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.

Table 1: Staff and Facilities Savings

	PRE-GROUP (INDIVIDUAL WORK)	**2016 5-year PROJECTIONS**
Clinical packages delivery hours	1125	6690 (87% retention)
N completed full treatment	70	435 (+621%)
Total staff cost	£295,920	£305,565
Completed unit treatment cost *per patient*	£803	£140 (82% saving)
Cost of facilities	£20,550 (Inc. cost of DNAs)	£5,120
Theoretical staff provision change: @ 6690hrs	£249,484	-£180,984
Theoretical facilities change: @ 6690hrs	£100,350	-£95,230

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 8 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]

Figure 1: Consort diagram of continuous sample of patients screened and directed to mindfulness courses

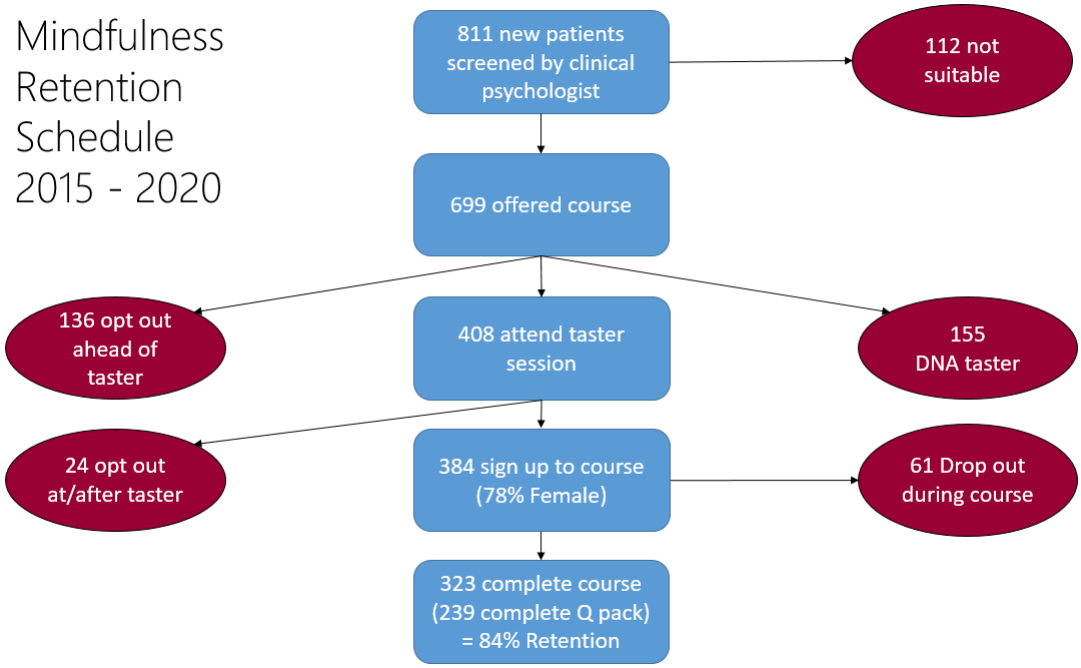
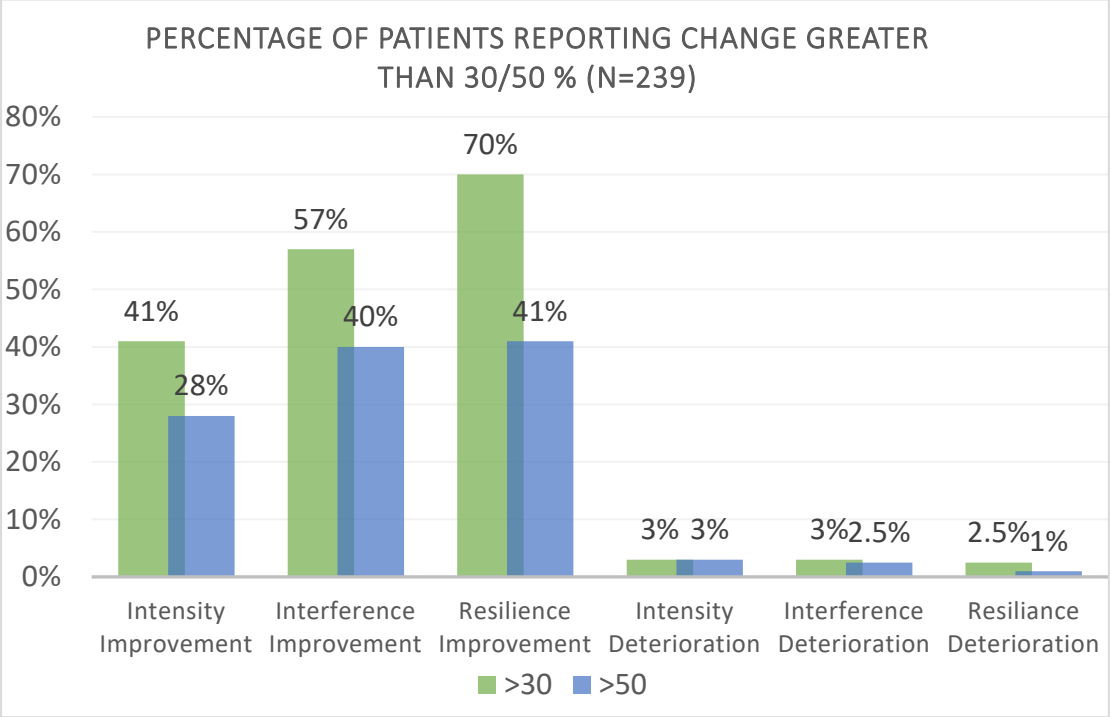


Figure 2: Clinical and patient subjective outcomes since and including the initial pilot

Figure 2 Shows subjective self-reported improvement and deterioration (-100 to 100%)



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

The above is the patients' self-reported subjective change, at the end of the 8-week course, compared with the start of the course. As the service offers multiple multidisciplinary packages that are tailored to the patient's assessment-established needs, long term follow up data is 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 is 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/post treatment, being beyond the Standard Error of Measurement (SeM) and/or at least within two Standard Deviations (SDs) of the mean of a non-clinical populations, 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 7 8 9 10 11 12 13 14] 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 3: Brief Pain Inventory[8] Pain Intensity Subscale – Pre & Post scores for whole sample

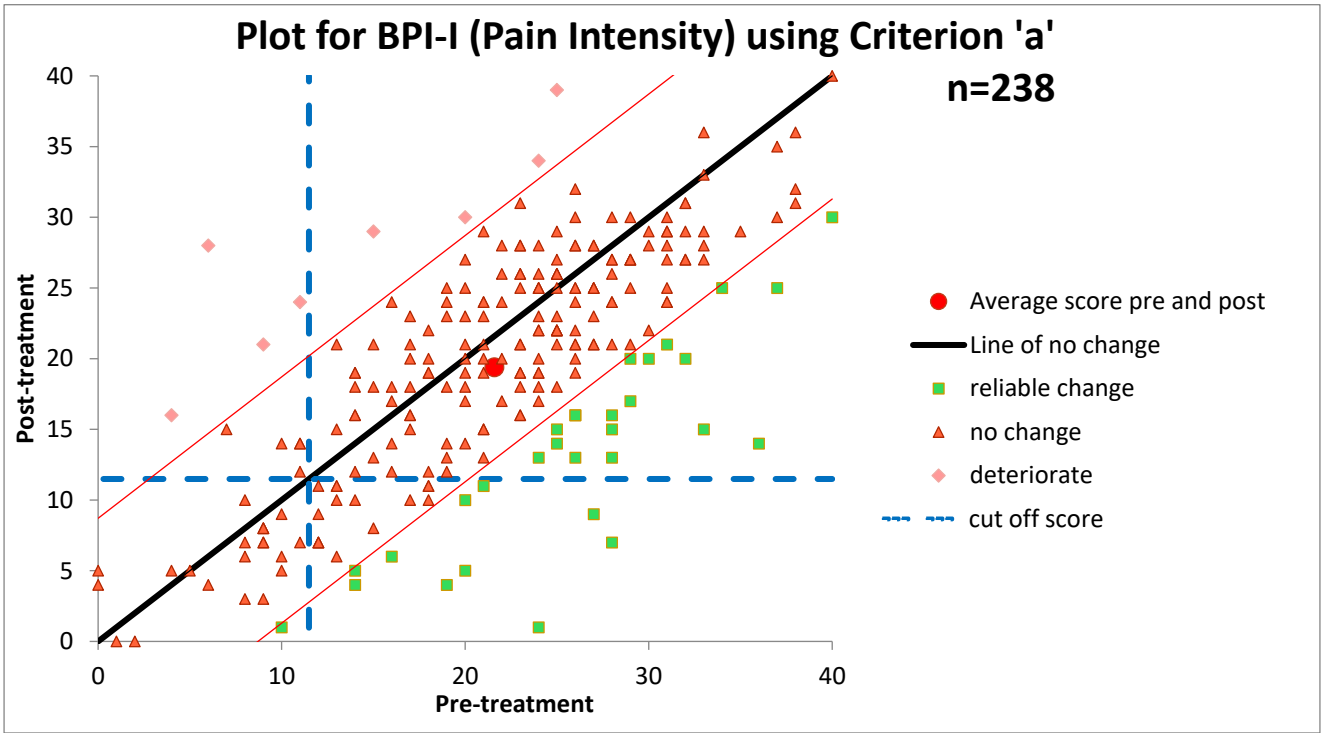


Figure 4: Brief Pain Inventory – Pain Interference Subscale – Pre & Post scores for whole sample

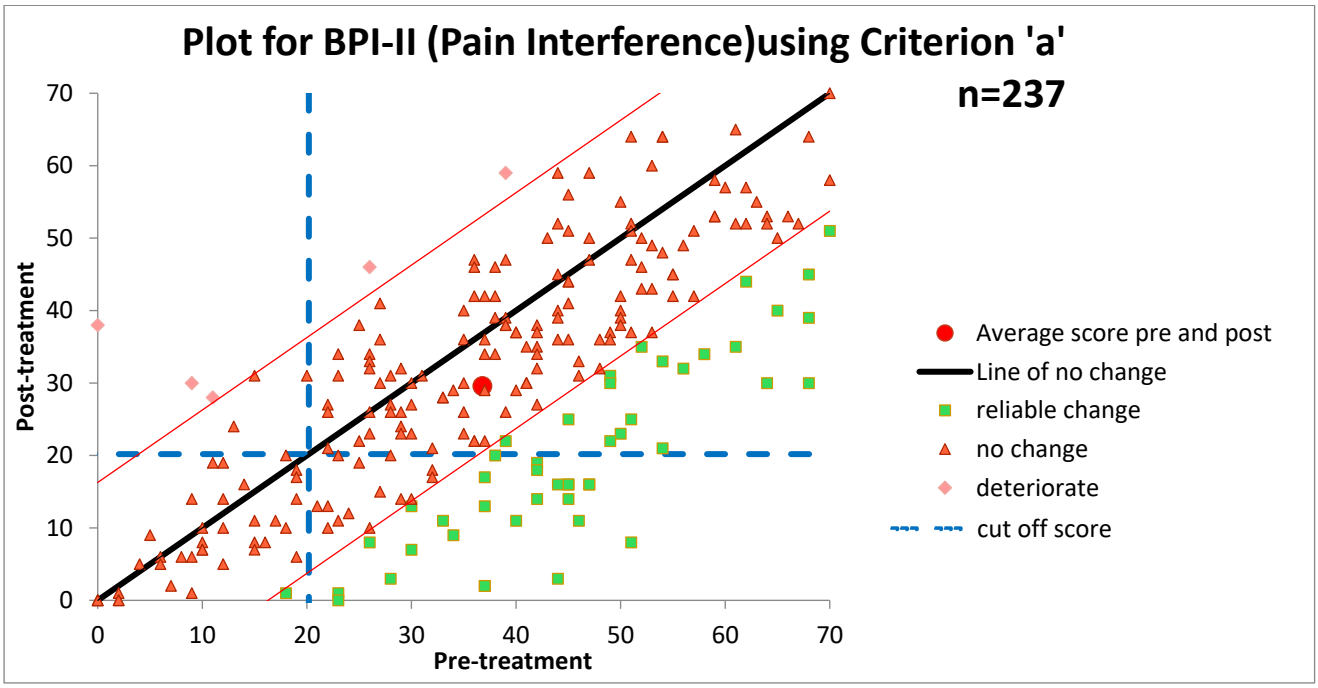


Figure 5: Beck Depression Inventory - Fast Screen (BDI-FS)[10] Pre & Post scores for whole sample

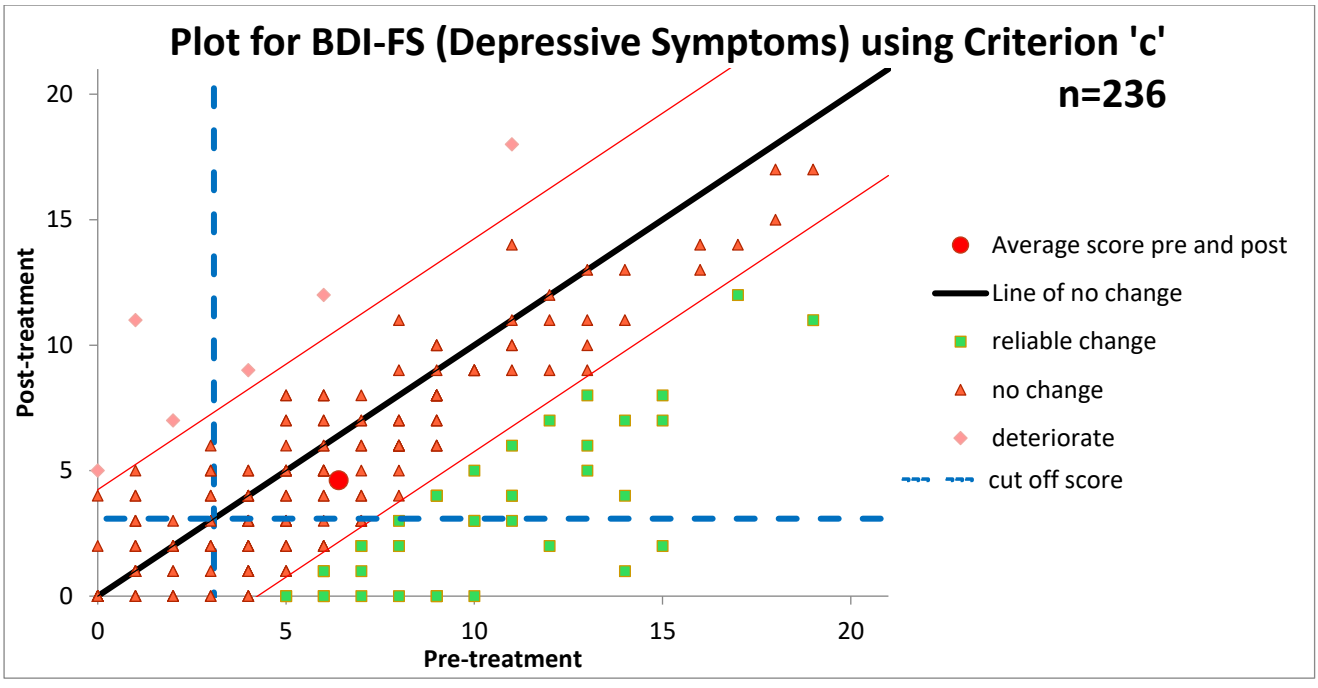


Figure 6: Pain Catastrophizing Scale – Pre & Post scores for whole sample

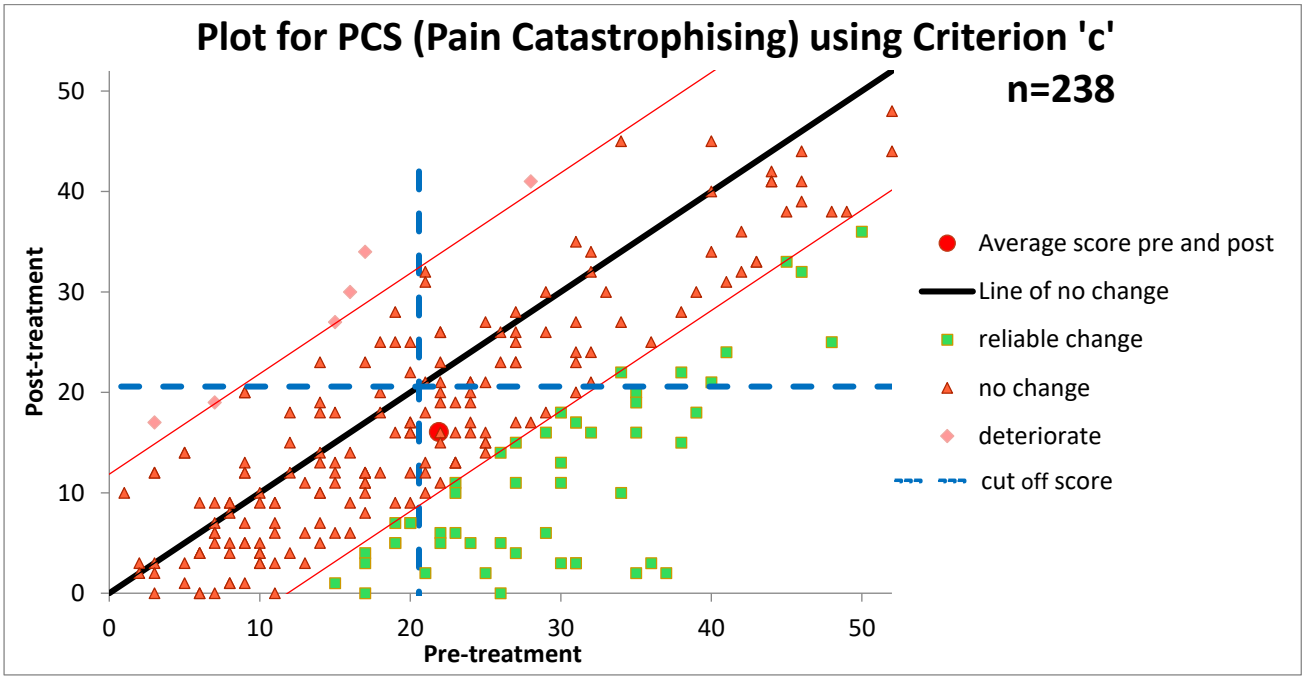


Figure 7: Pain Self-Efficacy Questionnaire [9] – Pre & Post scores for whole sample

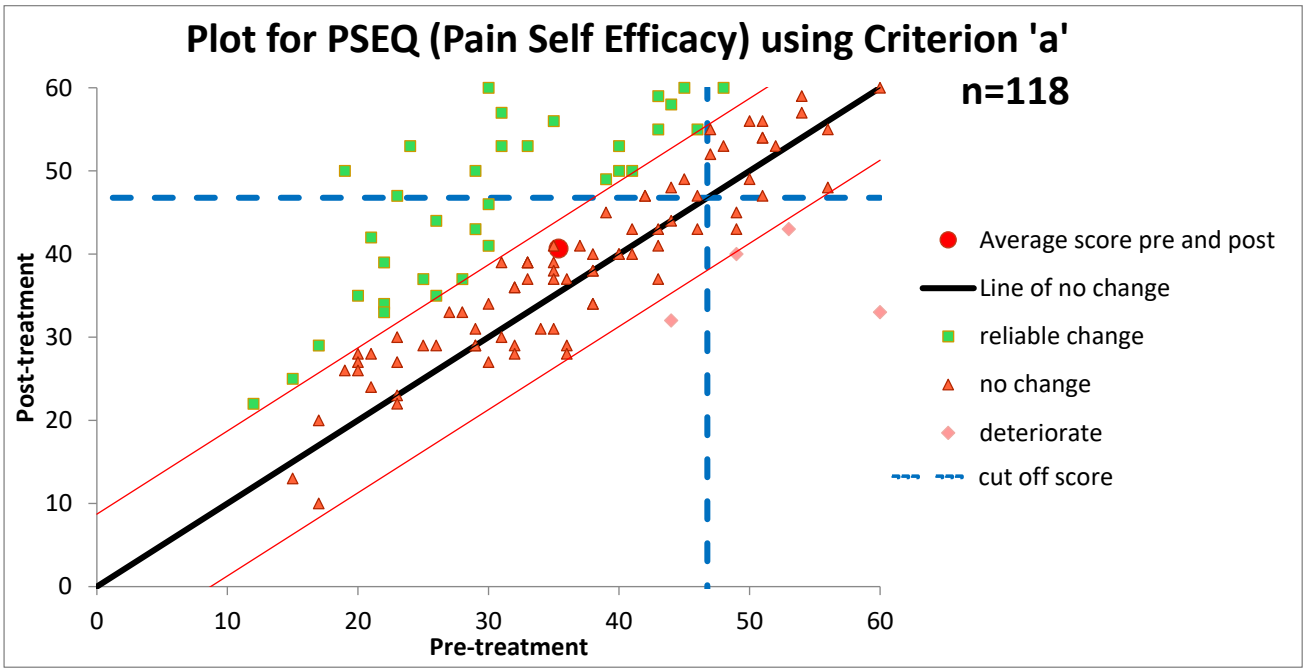


Figure 8: World Health Organisation - Five Well-Being Index [15]– Pre & Post scores for whole sample

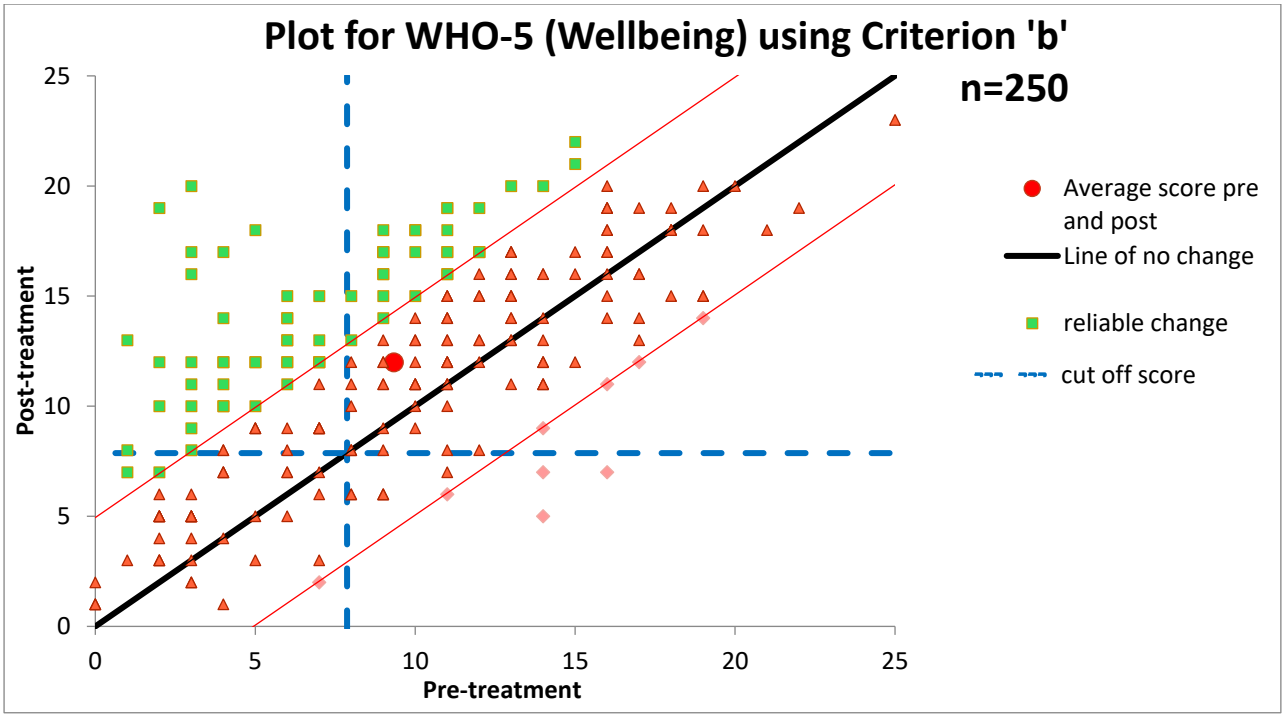
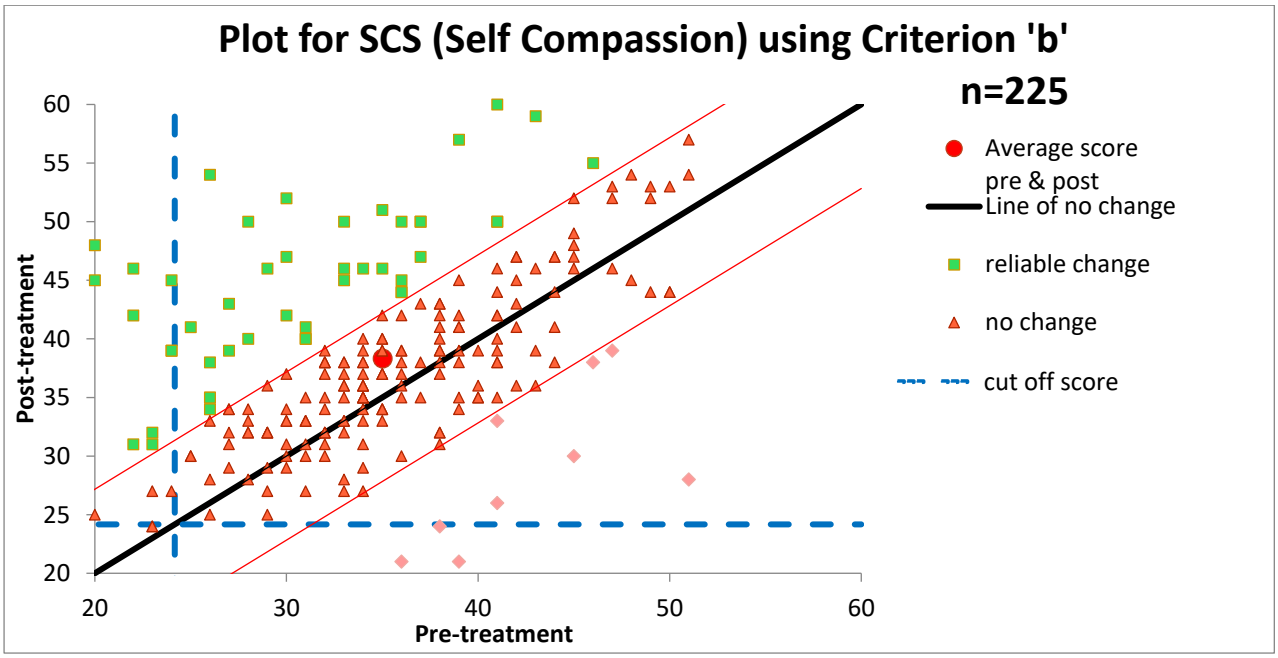


Figure 9: Self Compassion Scale (SCS)[16] – Pre & Post scores for whole sample



Figures 3-9 show the numbers of patients reporting statistically reliable change & 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 [18] packages: the Breathworks Mindfulness Based Pain Management (MBPM) based on the Mindfulness for Health Book and manual.[19]

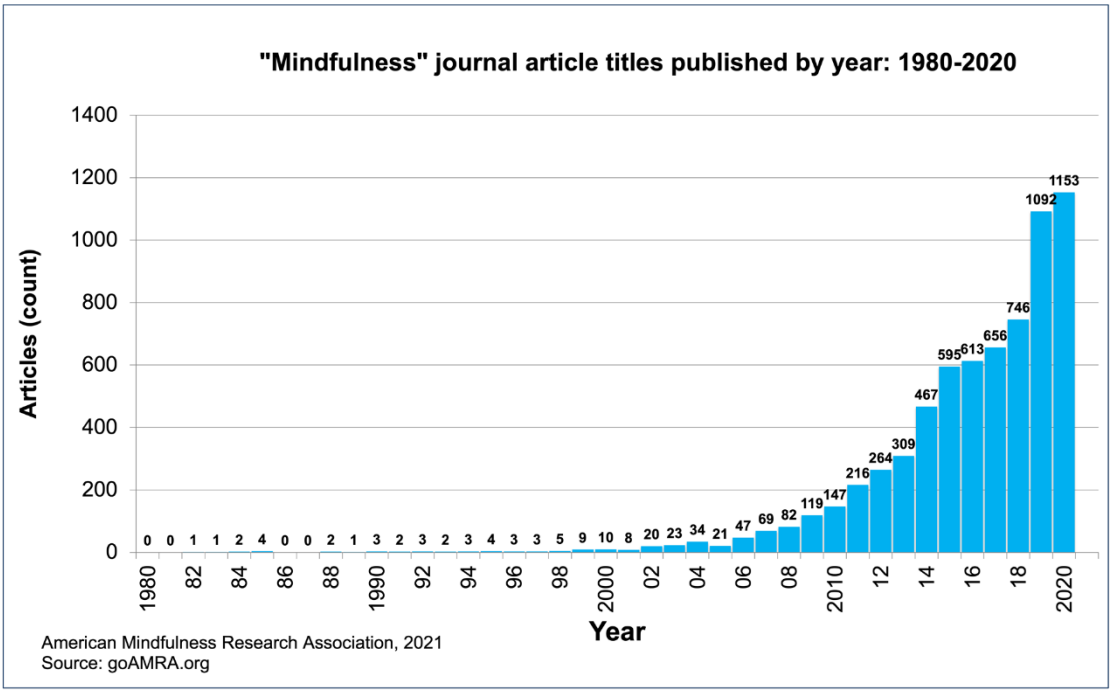
Mindfulness was first introduced into the clinic by our Consultant Clinical Psychologist after his ACT supervisor suggested he attended a two-day introduction to mindfulness for healthcare professionals in 2008. At this event he happened to meet Vidyamala Burch and Sona Fricker, founders and directors 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 principles[20] 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 license: 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, 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 report that research into mindfulness has grown from one single journal article in 1982, to 1153 scientific publications in 2020, [23] so it is understandable how such wave of interest has also permeated the world of Pain Management Programmes, despite its initial gravitation in the UK toward mental health difficulties.



The first published westernised mindfulness study[17] was actually delivered to pain patients as a low-cost programme, 100 USD per patient at the time. This early non-controlled study reported clinically significant improvements on a pain rating index ≥33% in 65% of the sample and ≥ 50% in 50% of the sample. However, MBSR then evolved and gained the greatest popularity within mental health settings.

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 that they had found it helpful for depression but not pain, or that they felt that in being referred to a course that ‘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.[24] The BAMBA requirements are the output from the collaboration of practitioners, researchers and teachers on good practice standards to teach, supervises 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 Mindfulness Based Iterventions, Teacher Assessment Criteria (MBI-TAC) was developed in collaboration by Oxford, Bangor and Exeter University and recently reviewed[25] to also include Liverpool John Moores, Warwick Univerisities 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 mindfulness-based approaches (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 competencies on both what and how to learn to teach it. Furthermore, a systematic review and meta-analysis[28] 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 above 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 above), 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 serve 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 & 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; n239 complete data sets – 74% data capture). Noting that 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, 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:

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

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 vs. 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 above. 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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