# AN ASSESSMENT OF MINDFULNESS FOR HEALTH FOR THE CHRONIC PAIN POPULATION WITH 12-MONTH FOLLOW-UP


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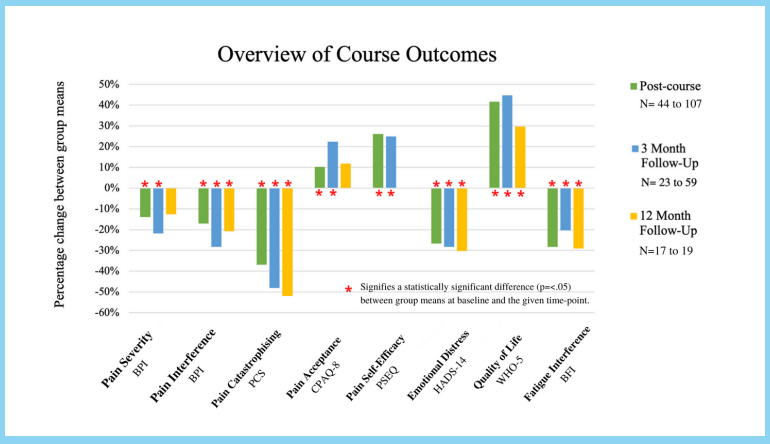
## Overview of our Research

The Breathworks Mindfulness for Health (MfH) programme is an 8-week mindfulness-based intervention, specifically tailored to those with chronic pain and illness. Through a combination of meditation training, psycho-education, mindful movement and compassion-based exercises, the MfH programme aims to enable participants to independently manage their symptoms and improve their quality of life. Research suggests that mindfulness-based interventions may benefit the chronic pain population, however the literature has called for future studies to include a long-term follow-up and assess functionality measures as well as clinical outcomes such as pain severity.

As part of Breathworks' ongoing service evaluation, each MfH attendee is invited to take part in a series of online surveys; before the course (baseline); immediately after the course (post); and both 3- and 12-months after course completion. This poster presents the results from our 2016 - 2021 data collection. 263 participants with a variety of chronic pain conditions completed a pre-course questionnaire. Most were self referrals, and were either self-funded or supported by a Breathworks bursary. Up to 107, 59 and 19 participants completed post-course, 3- and 12-month questionnaires respectively. The graph to the right displays the percentage difference between the group means (baseline vs X ), along with whether paired samples t-tests showed this change to be statistically significant.




Note: Throughout this poster, we have presented a range of Ns for each time-point as not every measure was completed by each participant. Response rates for pain self-efficacy were especially low (post = 44, 3-month = 23, 12-month = 0) as this measure was only included within the survey from 2020. Similarly, not all participants completed each questionnaire across the 4 time-points. As a result, we have analysed the follow-up groups separately against their baseline score. Whilst there may be an overlap, there is not necessarily a continuity in participants across groups (i.e. participant X may feature in the 12 month group but not 3-month or post-course).

## Clinically Significant Changes

The table to the right explores the sub-group of our overall sample who reported clinically concerning scores for Pain Self-Efficacy, Pain Catastrophising, Emotional Distress and Quality of Life. The clinical cut off points, guided by the literature, were set at <40, >30, >22 and <13 respectively.

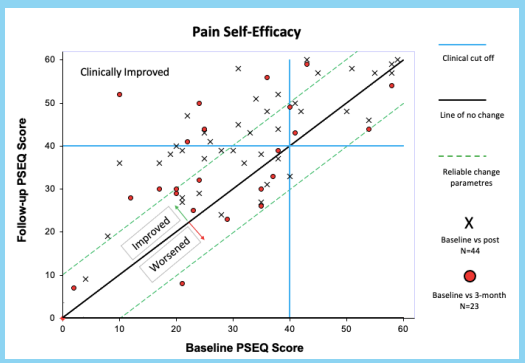
Column 3 shows the number of participants from the whole sample who had clinically concerning baseline scores. Column 4 shows the % of those individuals who no longer had a clinically concerning score (clinically significant improvement) at the given time-point. Column 5 shows the average and range of individual percentage changes in scores from baseline to the given time-point, again just within the sub-group with concerning baseline scores. It is noteworthy that participants joining a MfH course appeared to be most struggling with low levels of Pain-Self Efficacy and a poor Quality of Life. It was also these measures where the greatest average improvement was made.

| Time-Point (Baseline vs...) | Measure | Number of participants with a clinically concerning baseline score (denotes % of entire sample) | % of clinically concerning participants who made a clinically significant improvement | Average and (range) of individual score changes from baseline |
|---|---|---|---|---|
| Post (N=44 to 103) | Pain Self-Efficacy (PSEQ) | **32** (73%) | 34% | **+ 61%** (-23% to +260%) |
| | Pain Catastrophising (PCS) | **21** (20%) | 67% | **-39%** (-81% to +6%) |
| | Emotional Distress (HADS-14) | **12** (20%) | 50% | **-23%** (-59% to +3%) |
| | Quality of Life (WHO-5) | **48** (80%) | 48% | **+92%** (-70% to +533%) |
| 3-Month (N=23 to 58) | Pain Self-Efficacy (PSEQ) | **18** (78%) | 28% | **+67%** (-62% to +420%) |
| | Pain Catastrophising (PCS) | **13** (22%) | 85% | **-49%** (-97% to +39%) |
| | Emotional Distress (HADS-14) | **8** (24%) | 63% | **-23%** (-45% to +14%) |
| | Quality of Life (WHO-5) | **26** (79%) | 46% | **+94%** (+13% to +433%) |
| 12-Month (N=17 to 19) | Pain Catastrophising (PCS) | **2** (11%) | 100% | **-65%** (-88% to -42%) |
| | Emotional Distress (HADS-14) | **1** (6%) | 100% | **-37%** (N/A) |
| | Quality of Life (WHO-5) | **12** (71%) | 67% | **+99%** (0% to +217%) |


Further graphs were created to display individual participant changes across time for Quality of Life and Pain Self-Efficacy, the two measures with the greatest baseline clinical concern.

Quality of Life was measured by the WHO-5. This measure includes 5 items (e.g. "I have felt cheerful and in good spirits") to be rated on a 5-point Likert scale (0=at no time, 5=all of the time). Possible scores range from 0-25 with greater scores suggesting greater quality of life.

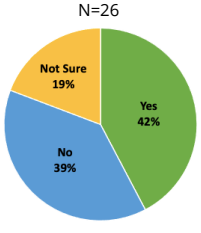
Pain Self-Efficacy was measured by the Pain Self-Efficacy Questionnaire. This measure includes 10 items (e.g. "I can cope with my pain without medication", "I can still do many of the things I enjoy doing, such as hobbies or leisure activity, despite pain") to be rated on a 7-point Likert scale (0=not at all confident, 6=completely confident). Possible scores range from 0 - 60, with greater scores suggesting greater confidence in carrying out daily activities despite experiencing pain. Research suggests that once chronic pain patients reach scores over 40 they are likely to sustain, or build on, their functional gains (Nicholas, 2007).




### 3-months after completing the MfH course, participants were asked:

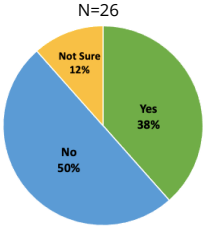
### "Have you noticed any reductions in your use of...?"

#### Healthcare Services




"I feel I am taking more management of my life without depending on the medical system entirely."

#### Medication




"[Following the MfH course] I do not take Oramorph as extra pain relief."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## Contact Us

If you would like any further information about our research, please do not hesitate to contact either Shannon Phillips or Colin Duff.

To discuss opportunities for research partnerships or collaborations, please contact Colin Duff.


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