Self-Selection all the Way: Improving Patients' Pain Experience and Outcomes on a Pilot Breathworks Mindfulness for Health Programme

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THE BRITISH PAIN SOCIETY
EXPERTISE WHERE IT MATTERS
Birmingham 2017

Abstract

This study investigated the changes in pain experience and quality of life resulting from an 8-week Breathworks accredited Mindfulness for Health programme, for patients experiencing chronic pain. Data was analysed between three direct selection (DS) and three self-selection (SS) groups. Outcomes for the overall sampled showed an improvement in standardised measures. Improvements in quality of life and mindfulness were also reported, as well as positive written and verbal feedback. Groups with a preliminary taster and engagement session, showed greater improvement, within a wider number of measures and better treatment retention.

Background

Chronic pain is a major health problem associated with multiple psychological challenges [1]. Limitations that exist in drug treatment emphasize the contribution of psychosocial factors to the management of pain and suffering. Recently, therapies have adopted acceptance based approaches, with Mindfulness as a fundamental component [2]. This is now part of the guidance from the British Pain Society on Pain Management Programmes[3]. Mindfulness has been described as "re-perceiving"; the ability to dis-identify from one's thoughts and view experience with greater clarity and objectivity [4]. This permits self-regulation of attention in a non-judgemental and non-reactive manner [5]. Mindfulness has been associated with reduced depression and anxiety, [6][7] as well as reducing subjective pain experience, distress and disability, in chronic pain patients [8][9]. However, it is important to consider important limitations. Previous studies have reported high drop-out rates, potentially the consequence of an unwillingness to participate or due to the patients' initial condition [10].

Aims

Within a UK Jersey-based pain centre offering intensive multidisciplinary pain management programmes, a Breathworks Mindfulness for Health (MfH) course, an 8-week package specifically developed for long-term pain and health difficulties, was piloted to establish the potential contribution to saving resources, outcomes and patients experience.

By piloting a direct (clinician recommendation) selection and subsequently introducing a self-selection process, this study aimed to: track differences in outcomes when comparing the MfH programme delivered to each the DS and SS groups.

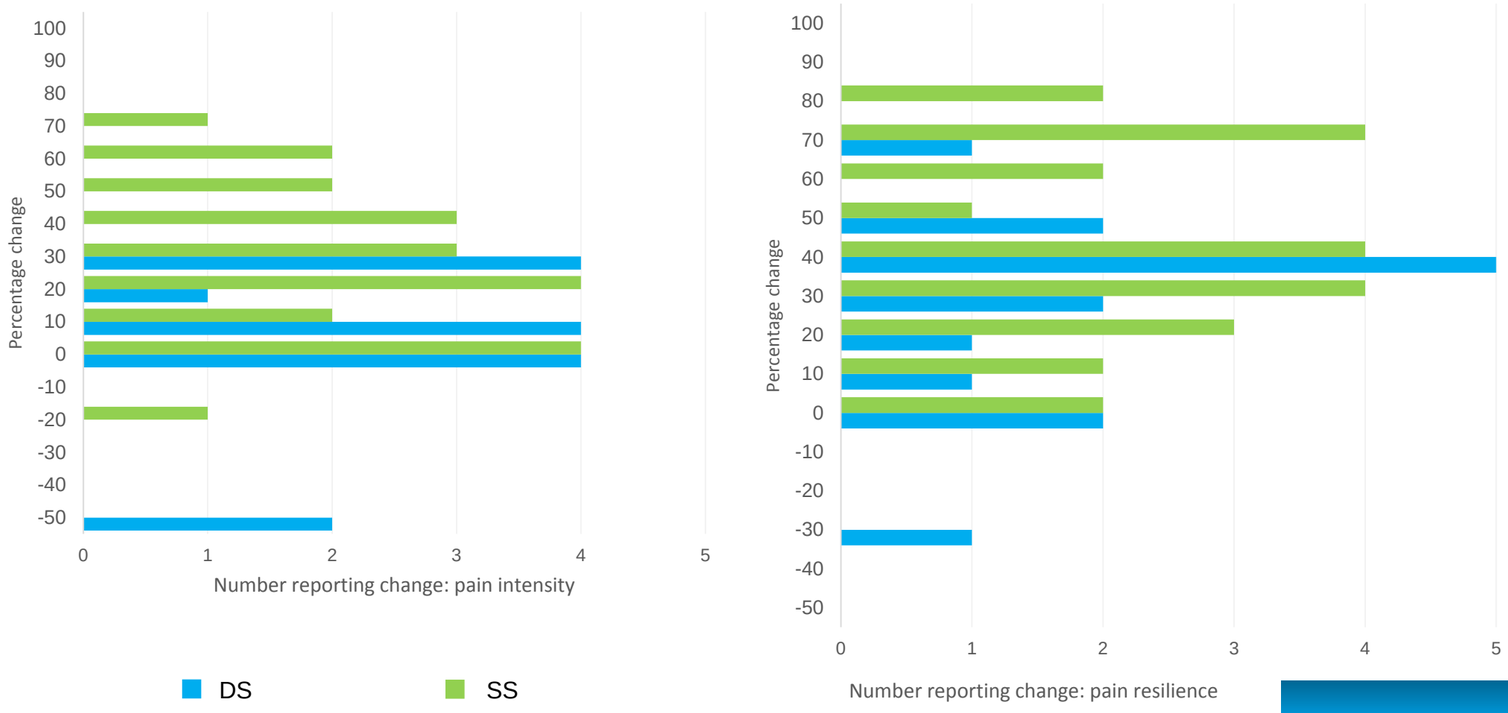

Figure 1 –distribution of changes in subjective pain intensity (left) and pain-related resilience (right)

Methods

A continuous sample of chronic pain patients (N=57) were allocated or opted-in to an 8-week (2.5 hours per week) MfH Breathworks Accredited course. The participants in first three courses (DS) agreed to attend and were allocated a place. Participants in the latter three courses (SS) opted-in from a broader group, during a pre-requisite taster and engagement session. The latter had an explicit presentation of course requirements, required reading and home-practice. MfH courses were co-facilitated by one consultant clinical psychologist and one pain specialist nurse. Subjective and standardised data was collected at baseline and at the end of treatment to be analysed using statistical analysis packages. Change in subjective pain intensity, interference and resilience as a percentage from -100% to +100% were also included.

Qualitative feedback from participants

"Given me a completely different outlook on how to deal with pain and is helping so much with the stress related to it"

"This course has truly been amazing and has helped me so much with my outlook and approach to life. I can't thank everyone enough. I still have a long way to go, but now I know where to go"

"I have enjoyed every aspect of this course. I love the habit breakers and the breathing and coming back to sensations have definitely helped when feeling overwhelmed with pain"

"The meditation has really helped me make time for myself and teach me coping mechanisms to deal with my pain"

Results

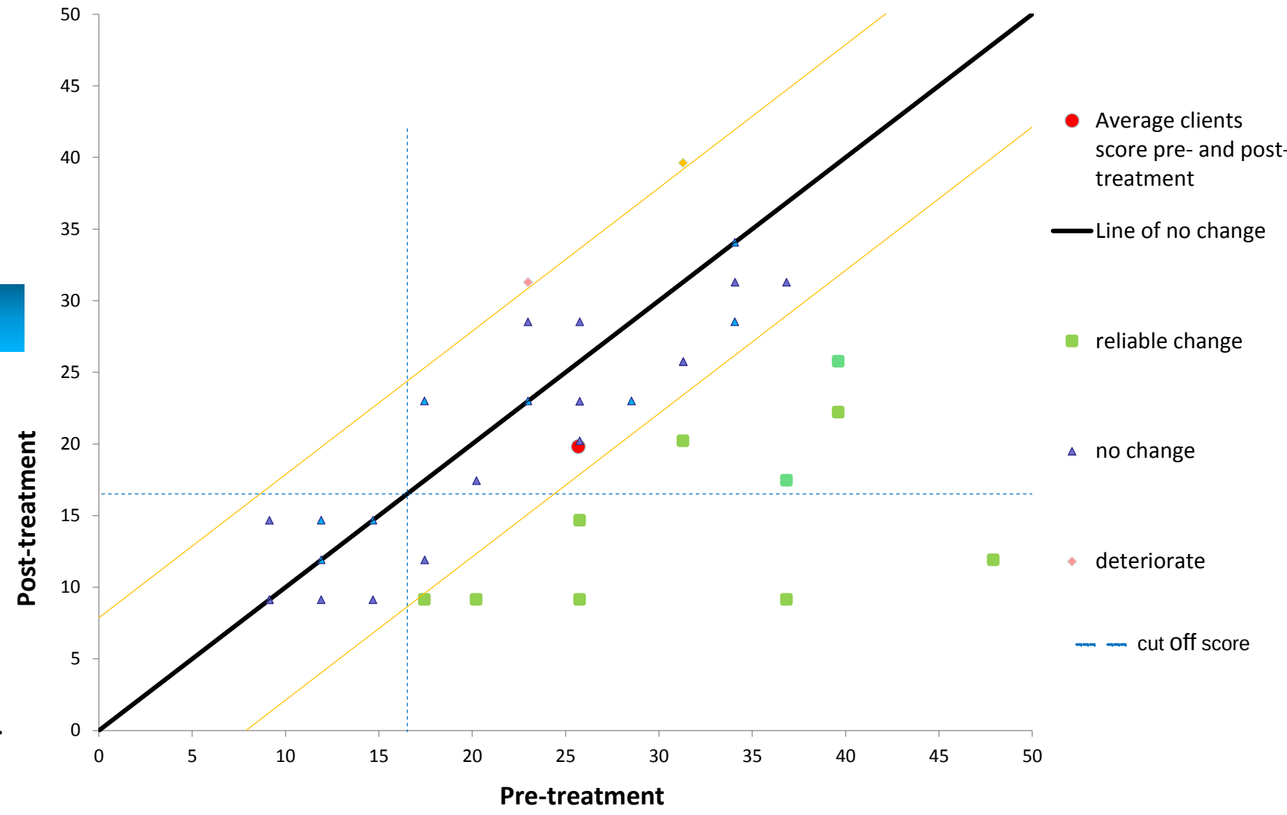

Figure 2 Clinically significant change Beck's Depression Inventory Fast-Screen

The DS group (n=15) reflected an average 67% retention. The SS group (n=24) reflected a consistent 85% retention across three consecutive groups. As displayed in *Table 1*, there were more significant improvements in standardised measures for SS than DS groups. *Figure 2* is one example of the Leeds Reliable Change Calculator [11]. analysis tool, which was used on all measures, depicting the spread of cases reporting reliable and/or clinically significant changes based on the measure's reliability and normative data for clinical and non clinical populations for that measure. *Figure 1* shows the positive change in self-report pain experience distribution for DS groups in comparison to SS groups, which had no reports of decreased pain resilience.

Table 1 - Paired samples t-test between baseline & outcomes

Measure	P	N	Mean diff.
Pain interference	<.001	34	31.32%
Pain Resilience	.001	34	24.26%
BPI Intensity	.029	38	-1.90
BPI interference	<.001	37	-7.68
CPAQ	<.001	35	8.09
Quality of life	<.001	38	3.21
BDI-FS	.001	39	-6.12
PCS	<.001	38	-7.05
Self-compassion	<.001	37	6.19
Mindfulness (4 facet)	.001	35	10.40

N.B. Bold figures represent the only significant changes reported in the DS group

Conclusions

MfH was linked with improved subjective pain experience and quality of life, however, the implementation of a taster session appeared to increase the completion rate and efficacy of the programme, on a broader range of areas including catastrophizing, standardised pain questionnaires, acceptance and mindfulness. This is possibly linked to improved client engagement. Utilising group-based interventions also allowed for increased per-head therapeutic hours with efficient use of clinician time. MfH may complement or replace the provision of more intensive PMPs where perhaps a full package is not required or when less intensive preparatory work may improve engagement, buy-in and shift to self-management.

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