

Exploring the effectiveness of Mindfulness Based Cognitive Therapy courses for people with physical health conditions

Kasia Sitko, PhD¹; Kate Ryder, DClInPsy²; Emma Bishop, DClInPsy²

¹University of Leeds; ²Bradford Teaching Hospitals NHS Foundation Trust

Abstract

This service evaluation was commissioned to evaluate the effectiveness of the Mindfulness Based Cognitive Therapy (MBCT) course on emotional well-being for people with physical health conditions.

MBCT was offered to clients accessing Clinical Health Psychology in addition to individual therapy or as a stand-alone intervention where this best fit their needs (an opt-in method). Pre and post course data were collected as part of service outcomes. Paired sample t-test's showed a significant decrease between pre and post scores for anxiety, depression, and perceived stress, and a significant increase for self-compassion. Clinical significance was found for 24% of clients for anxiety, 21% for depression, 47% for perceived stress and 58% for self-compassion. These findings suggest that overall the MBCT course leads to improved emotional well-being; furthermore that these are clinically meaningful for a large percentage of

Introduction

The Clinical Health Psychology Service in Bradford Teaching Hospitals NHS Foundation Trust has been providing MBCT courses to clients across physical health conditions since 2013. Outcome data has been routinely collected to monitor the impact of these courses on participants' emotional well-being, including levels of anxiety, depression, perceived stress, and self-compassion.

MBCT is a mindfulness based intervention that is provided as an 8-week group programme. MBCT builds emotional resources through learning to develop:

- awareness of their thoughts, feelings, and body sensations
- awareness of our natural tendency to judge or 'problem solve' experience, and subsequently to cultivate attitudes of letting go and non-judging
- the ability to identify present, past, and future thinking, and cultivate a present moment focus¹.

The experience of physical health difficulties is often associated with loss and threat, which leads to the experience of difficult emotion such as anxiety, worry, fear, sadness, and anger. People may also experience feelings of guilt, shame, and self-blame². Physical health difficulties can change people's perception of themselves and the world, and challenge beliefs about control and certainty².

Meta-analytic evidence shows that mindfulness can reduce depression, anxiety and stress³. Also, there is a growing evidence for MBCT in physical health, showing reductions in anxiety, depression, and fatigue in conditions such as diabetes⁴, cancer⁵, and heart disease⁶.

This service evaluation was commissioned to evaluate the effectiveness of the MBCT course on anxiety, depression, perceived stress, and self-compassion.

Methods

Clients were offered the MBCT course either as an addition to 1:1 therapy or as a stand-alone intervention depending on clinical need – this was therefore an opt-in method. Referrals were either internal from psychological care or through a healthcare MDT (e.g. Living with Pain team assessment). A 1:1 screening appointment was carried out by a mindfulness teacher EB / KR (clinical psychologists who delivered the MBCT course) for all clients not in individual therapy. This appointment was used to share more details about the course, to answer questions, and to provide space for the client to make an informed decision.

Data examining emotional well-being was routinely collected as part of service outcomes pre and post course using the following questionnaires: Hospital Anxiety and Depression Scale⁷, Perceived Stress Scale⁸, and Self-Compassion Scale – Short Form⁹.

Results

Eleven MBCT courses were delivered between year 2013-2017. 135 clients opted-in (Figure 1).

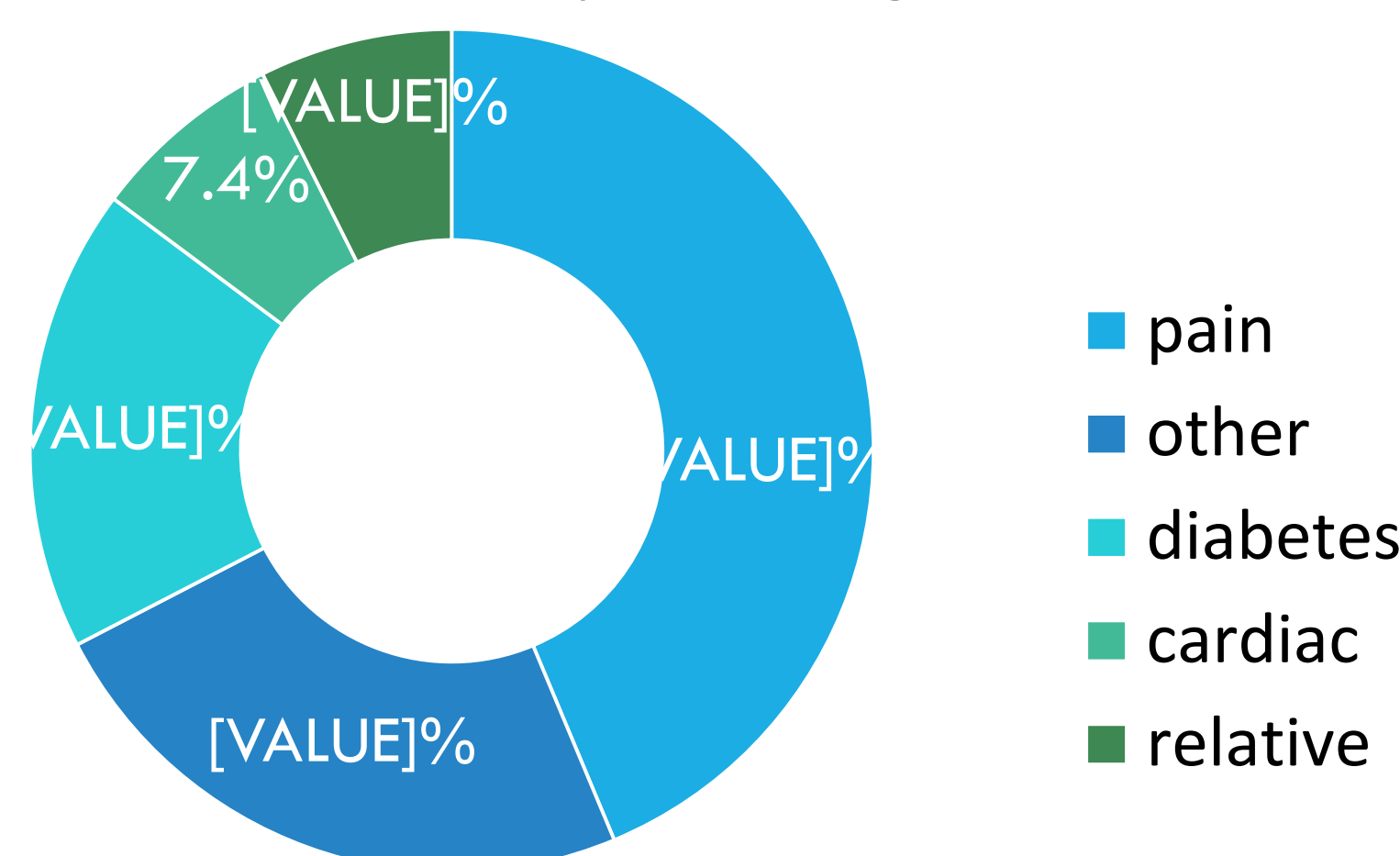


Figure 1. Specialties of clients who opted-in

Statistical Significance (Table 1)

The data met all assumptions for a paired samples t-test. There was a significant reduction in **anxiety**, pre (M = 12.37, SE = 0.44), post (M = 10.03, SE = 0.44), $t(91) = 6.23, p < .001, r = .55$; **depression**, pre (M = 10.39, SE = 0.47), post (M = 7.39, SE = 0.48), $t(91) = 7.52, p < .001, r = .62$; and **perceived stress**, pre (M = 25.02, SE = 0.67), post (M = 18.78, SE = 0.85), $t(84) = 9.03, p < .001, r = .70$. There was also a significant increase in **self-compassion**, pre (M = 2.35, SE = 0.08), post (M = 2.97, SE = 0.07), $t(84) = -7.79, p < .001, r = 0.65$. Effect sizes were moderate.

Table 1. Paired samples t-test statistics.

		Mean	N	Std. Error Mean	t	Pearson's r
Anxiety	Pre	12.37	92	.44	6.23*	0.55
	Post	10.03	92	.44		
Depression	Pre	10.39	92	.47	7.52*	0.62
	Post	7.39	92	.48		
Perceived Stress	Pre	25.02	85	.67	9.03*	0.70
	Post	18.78	85	.85		
Self-Compassion	Pre	2.35	85	.08	-7.79*	0.65
	Post	2.97	85	.07		

* p-value = <.001

Results Continued

Reliable Change and Clinical Significance

Reliable change was found in 23 (25%) clients for anxiety, and in 21 (23%) clients for depression. Of these, 22 (24%) were clinically significant for anxiety, and 19 (21%) for depression. Additional calculations show that a reliable change and a shift from above cut-off at pre-course to below cut-off at post-course was found in 32 (35%) clients for anxiety, and 35 (38%) clients for depression.

Reliable change and statistical significance was also found for 40 (47%) clients for perceived stress, and 49 (58%) for self-compassion. These results are shown in Table 2.

Table 2. Reliable Change and Statistical Significance

	RCI	No Change		RD		RI		CS		RI & SHIFT	
		N	%	N	%	N	%	N	%	N	%
Anxiety	4.96	66	71.7	3	3.3	23	25.0	22	23.9	32	34.8
Depression	5.95	70	76.1	1	1.1	21	22.8	19	20.7	35	38.0
Perceived Stress	6.90	42	49.4	3	3.5	40	47.1	40	47.1	-	-
Self-Compassion	0.47	30	35.3	6	7.1	49	57.6	49	57.6	-	-

Note: RCI - reliable change index; RD - reliable deterioration; RI - reliable improvement; CS - Clinical Significance; SHIFT - shift from above cut-off score at pre-course and below cut-off score at post-course. There are no cut-off scores for the Perceived Stress Scale and Self-Compassion Scale.

Discussion

This service evaluation was commissioned to evaluate the effectiveness of the MBCT course on emotional well-being in terms of anxiety, depression, perceived stress, and self-compassion.

The findings suggest that overall the MBCT course leads to a reduction in anxiety, depression and perceived stress, and to an increase in self-compassion. The effect sizes for these findings were in the moderate range.

Furthermore these findings show that these effects are clinically meaningful to a large percentage of clients – even a larger percentage when clients who shifted from above cut-off at pre-course to below cut-off at post course are included in additional calculations.

Overall these findings show the MBCT course that is offered by Clinical Health Psychology Service in Bradford Teaching Hospitals NHS Foundation Trust is effective at reducing anxiety, depression, and perceived stress and at increasing self-compassion. These findings are both statistically significant and clinically meaningful.



Contact

Dr Kate Ryder / Dr Emma Bishop
Bradford Teaching Hospitals NHS Foundation Trust
Email: kate.ryder@bthft.nhs.uk / emma.bishop@bthft.nhs.uk
Website: <http://www.bdct.nhs.uk/>
Phone: 01274 36 5176

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