Institution: 10007857 Bangor University

Unit of Assessment: 04

Title of case study:
Mindfulness-based interventions enhance wellbeing: development and implementation

1. Summary of the impact (indicative maximum 100 words)

There is strong evidence that Mindfulness-Based Cognitive Therapy (MBCT) plays a major role not only in preventing the recurrence of depression, but also in enhancing well-being more broadly. Much of this research was carried out at Bangor University's Centre for Mindfulness Research and Practice, with a focus on non-academic impact from the outset. Between 2008-2013, the Centre has delivered MBCT courses to over 1500 members of the public. We have also trained over 1300 professionals to deliver MBCT within the NHS and other contexts, leading to several successful spin-off businesses. Finally, Centre researchers lead in the creation of UK good practice standards.

2. Underpinning research (indicative maximum 500 words)

Mindfulness-Based Cognitive Therapy (MBCT) integrates Mindfulness-Based Stress Reduction with aspects of Cognitive Behavioural Therapy. It was (and continues to be) developed at Bangor University through translational research on the mechanisms of depressive relapse/recurrence following **a three-centre randomised controlled trial (1995-8) funded by the** Welsh Office of Research & Development and the National Institute of Mental Health (USA). This project was led by Professor Mark Williams of Bangor University (1991-2002) in collaboration with Teasdale (Cambridge) and Segal (Toronto). **This research demonstrated that** MBCT halves the expected rate of depression recurrence in those who have experienced three or more episodes [3.1,3.2]. Following replication of this result, the approach was recommended in 2004 by the National Institute for Health and Care Excellence (NICE) as an effective depression prevention programme. A body of subsequent trials suggests that it significantly and consistently reduces depressive relapse rates compared with usual care.

These research findings generated widespread interest in MBCT. Recognising this, and in order to strategically focus our strengths in this area, in 2001 Bangor University founded the Centre for Mindfulness Research and Practice. Since then, the Centre has played a leading role in the development and evaluation of MBCT**.**

An important implication of our MBCT research is that it offers a model that clinicians and researchers working with other populations can translate to their context through the integration of cognitive science with a mindfulness-based orientation. Specifically: 1) the central processes on which MBCT is thought to have its effects (rumination and experiential avoidance) are trans-diagnostic; 2) the skills that MBCT trains (attentional focus, self-awareness and self-compassion) have wide applicability; 3) The MBCT manual that was published in 2002 made the programme form and its rationale explicit and accessible.

As a result, MBCT is now adapted, researched and applied across a range of populations including those with chronic fatigue, residual depression, bi-polar disorder, anxiety, and chronic physical conditions; and for children (in clinical and educational contexts) and parents. In Bangor specifically, we are conducting research to evaluate MBCT adaptations for those affected by cancer; for parents; for children and teachers in school contexts; and for people with learning disability.

We continue to conduct research on depression prevention through an on-going collaboration with Professor Williams (now at Oxford University). A Wellcome Trust funded randomized control trial, 'Staying Well After Depression' (2009-2013) investigates the effect of MBCT on cognitive vulnerability to recurrent suicidality [3.3]. A recent British Medical Journal editorial analysed important directions for the next phase of depression related MBCT research [3.4], determining that one of the areas that requires systematic focus is the implementation of MBCT in the UK

health service. Even though it is nearly 10 years since NICE first recommended MBCT, and although the 2009 NICE update identified the approach as a key priority for implementation, a substantial evidence gap remains between the efficacy research and implementation in routine settings. Bangor has recently secured National Institute for Health Research funding in order to systematically research the process of implementation of MBCT in the NHS.

Finally, we have been at the forefront of responding to the demand for suitable evidence-based training for clinicians, and for leadership on issues of professional practice and implementation. To this end, we have led a collaboration with colleagues at Oxford and Exeter to develop a methodology for assessing mindfulness-based teacher competence [3.5, 3.6].

3. References to the research (indicative maximum of six references)

*Bangor authors are in **boldface**.*

1. Teasdale, J.D., Segal, Z.V., **Williams J.M.G.,** Ridgeway V.A., **Soulsby, J.G.,** Lau M.A., (2000) Prevention of relapse/recurrence in major depression by Mindfulness-Based Cognitive Therapy, *Journal of Consulting and Clinical Psychology*, 68 (4): 615-23. (740 citations in ISI Web of Knowledge, October 2013). DOI: 10.1037//0022-006X.68.4.615
2. **Williams, J.M.G**., Russell, I., Russell D. (2008). Mindfulness-Based Cognitive Therapy: Further issues in current evidence and future research, *Journal of Consulting and Clinical Psychology,* 76(3):524-529. (17 citations in ISI Web of Knowledge, October 2013). DOI: 10.1037/0022-006X.76.3.524
3. Williams, J.M.G., Barnhofer, T.,Crane, C., Duggan, D., Shah, D., Brennan, K., Krusche, A., **Crane, R.S., Eames, C., Jones, M., Radford, S., Russell, I.T**. (2012) Pre-Adult Onset and Patterns of Suicidality in Patients with a History of Recurrent Depression, *Journal of Affective Disorders*, DOI: 10.1016/j.jad.2011.12.011
4. Kuyken W, **Crane R.S.,** Dalgleish T. (2012) Does mindfulness based cognitive therapy prevent relapse of depression? *British Medical Journal,* 345:e7194. Epub 2012/11/13. DOI:/10.1136/bmj.e7194
5. **Crane, R.S.,** Eames, C., Kuyken, W., **Hastings, R. P.,** Williams, J.M.G., **Bartley, T.,** Evans, A., **Silverton, S., Soulsby, J.G.,** Surawy, C. (2013) Development and validation of the Mindfulness-Based Interventions – Teaching Assessment Criteria (MBI:TAC), *Assessment*. DOI: 10.1177/1073191113490790
6. **Crane R.S.,** Kuyken, W., Williams, J. M. G., **Hastings, R., Cooper, L.,** Fennell, M.J.V. (2012), Competence in teaching mindfulness-based courses: concepts, development, and assessment, Mindfulness 3:1-76-84, DOI: 10.1007/s12671-011-0073-2

Relevant grant funding (total > £1.6M)

- Wales Office of Research and Development for Health and Social Care (WORD RA013, Bangor & Cambridge arm) £117,484 and NIMH Grant MH53457 (Toronto arm) 1995-1998, $210,000: *Reducing relapse after recovery on antidepressant medication: An evaluation of Attentional Control Training/Mindfulness-Based Cognitive Therapy*
- The Wellcome Trust, *Staying Well After Depression Trial* – 2009-2013 Total award to Bangor arm: £1,145,531
- National Institute for Health Research (2013) *Accessibility and implementation in UK services of an effective depression relapse prevention programme: Mindfulness based cognitive therapy*, £192,638
- Three PhD studentships funded from Welsh Assembly, ESRC and Tenovus: £220,000 between 2010-2013

4. Details of the impact (indicative maximum 750 words)

Whilst our research trials have focussed on depressive relapse as a primary outcome [3.1-3.4], we strategically address the wider transfer of the MBCT evidence base into practice settings regionally, nationally and internationally. The beneficiaries of MBCT delivery include patients; members of the general public; education and health professionals; and policy-makers [5.1-5.8].

Impact on the general public
An on-going programme of delivery of 8-week MBCT courses reaches the general public in Bangor and London, and within the local NHS hospital cancer service for cancer patients and their carers. Between August 2008 and July 2013, 1173 general public participants participated in our courses, 514 of whom received financial support due to socioeconomic disadvantage. A further 228 service users participated in our conferences, which include experiential training. 300 cancer patients and their carers have participated in the charity-funded MBCT for Cancer programme, with evidence of benefits to wellbeing and adjustment.

To extend occupational and organisational impact, we also take MBCT into the workplace context. The Centre for Mindfulness Research and Practice has been contracted to offer eight 'Mindfulness and Wellbeing Classes' to Gwynedd County Council staff during 2013 and 2014 - evaluations of the benefits of this programme are underway. To support this, the Centre published a self-help guide for participants (Silverton, 2012), sales of which have exceeded 28,000 copies. Course materials have also recently been developed for Welsh speakers.

Impact on training others in MBCT delivery
The Centre for Mindfulness Research and Practice is the largest and leading UK training organisation in this field. Developmental training for professionals who want to up-skill and gain understanding in delivering mindfulness-based interventions is offered at foundational through to advanced teacher training level over a range of residential formats (4-7 days) or through Master classes and training days. These have been taken up by approximately 1310 professionals (~10% international) since 2008. Since 2009, the clinical doctorate programme at Bangor has also worked with the Centre to provide trainees with teaching in the principles of MBCT [5.3-5.5].

To support implementation of mindfulness by professional and practitioner audiences, several books have been authored by Centre staff, on topics such as Mindfulness principles and practice (Crane, 2009, 2012, sales: 11000+); MBCT adapted specifically for those affected by cancer (Bartley, 2012, sales: more than 1200); and applying Mindfulness training in work place contexts (Chaskalson, 2011, sales: more than 2000).

Implementation of MBCT in the UK National Health Service [5.3-5.7]
In line with MRC guidance on the development, evaluation and implementation of complex interventions to improve health, implementation remains a key challenge in developing MBCT. Crane has led this on a UK wide level, in collaborations with Kuyken (Exeter) and Williams (Oxford). A survey of MBCT stakeholders (e.g. health, education and social work practitioners) found that MBCT implementation is rarely strategic and that large inequities exist across the UK. In response, we developed a freely available online toolkit for stakeholders involved in MBCT implementation. Over 200 individuals in 73 NHS geographical areas working within the UK services have been supported in their MBCT implementation through training, supervision, consultation and mentoring provided by Centre staff. A National Institute for Health Research study led by Bangor (2013) will scope existing provision of MBCT across UK, examine the benefits/costs of embedding MBCT in mental health services, investigate facilitators and barriers to delivering MBCT, and identify the critical success factors for the routine use of MBCT as recommended by NICE.

Creating a professional context for mindfulness-based teachers across the UK
Senior staff from the Centre for Mindfulness Research and Practice led the development of the UK Network for Mindfulness-Based Teaching Organisations. The Network has representation from all the main training organisations in the UK, and has developed consensus on good practice standards for mindfulness-based teachers and trainers. These have had a considerable impact on service delivery in the UK by providing structure and guidance to NHS managers, commissioners and clinicians as they set up MBCT services [5.3-5.5].

Benefits to the economy
MBCT is a cost effective intervention for the NHS. When delivered in a group context, the 'per

participant' rate is reduced in comparison to individual therapies or treatments. For every episode of depression prevented there is a saving of £30 per depression free day for total costs and £14 per day for health service costs.

More locally, the Centre for Mindfulness Research and Practice has grown from employing 0.5FTE staff in 2001 to now employing 7+ staff on contracts within the University. A further 26 teachers/trainers work freelance for the Centre and are based across the UK. Several graduates from Centre training programmes have gone on to set up successful social enterprises delivering Mindfulness-based teaching and training. These include LivingMindfully, who work with Jobcentreplus among others, and Mindfulness-Works, who work in organisational settings including with KPMG, the Home Office, the Cabinet Office, and the Prudential.

5. Sources to corroborate the impact (indicative maximum of 10 references)

5.1 Founder of the Center for Mindfulness in Medicine, Health Care, and Society, University of Massachusetts Medical School, USA

5.2 Professor of Psychology, Department of Psychiatry, Cambridge University can provide general commentary on the non-academic impact that CMRP has on the roll out of mindfulness-based approaches in Britain

5.3, 5.4, 5.5 Clinical leads in NHS trusts within the UK. CMRP has supported the implementation of MBCT within health services across the UK.

5.6 Chief Executive of the Mental Health Foundation (MHF). The MHF published a report entitled 'Mindfulness' [14] as a platform for campaigning for the implementation of the NICE guidance (2009) on MBCT as 'key priority' within the NHS in primary care. CMRP staff members were consulted during the preparation of the report, inputted to its media launch and CMRP is cited as an example of good practice. (http://www.mentalhealth.org.uk/publications/be-mindful-report/). A copy of this report is available on request.

5.7 National Institute for Health and Clinical Excellence (NICE). In 2004 MBCT was recommended by the UK's best practice advisory board for the NHS - NICE (National Institute for Health and Clinical Excellence, 2004 Clinical Guideline No. 23) as a treatment of choice for preventing depressive relapse in those individuals who have experienced three or more episodes. This NICE guideline was updated in 2009: Depression: the treatment and management of depression in adults (update). Clinical Guideline 90. Retrieved from http://guidance.nice.org.uk/CG90

5.8 Chris Ruane (MP Clwyd West) cited Bangor University's Centre acknowledging it as the best in the UK and outlining the benefits of mindfulness training etc. Ruane. C. (2013) Hansard contributions, Retrieved from:
http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm121204/debtext/121204-0004.htm#12120467002692