DOCTOR OF PHILOSOPHY

From research to practice : integrity and pragmatics in implementing mindfulness-based interventions

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Award date:
2015

Awarding institution:
Bangor University

Bangor University
Prifysgol Bangor

From research to practice: integrity and pragmatics in implementing mindfulness-based interventions

by
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A thesis submitted to the School of Psychology, Bangor University, in partial fulfilment of the requirements of the degree of Doctor of Philosophy

I beg you, to have patience with everything unresolved in your heart
and to try to love the questions themselves as if they were locked rooms
or books written in a very foreign language.

Rainer Maria Rilke

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Thesis Summary

Implementation of evidence into practice is a complex and multi-dimensional process. There has been rapid expansion in published theoretical and empirical literature on Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT). However, there has been little research or theoretical analysis of the processes involved in translating the new evidence into practice. Within the thesis aspects of the MBSR/MBCT implementation process are analysed and researched, with a particular focus on training practitioners, development and assessment of teaching competence, and the barriers and facilitators to implementation in health care settings.

The thesis includes six peer reviewed scientific journal papers – two theoretical papers on training and on competence; an empirical paper presenting the development of a system for assessing mindfulness-based teaching competence (the Mindfulness-Based Interventions: Teaching Assessment Criteria) and the initial validation of this tool; research using Conversation Analysis methods on interaction between teacher and participants in mindfulness-based courses; a survey based analysis of the implementation of MBCT within the UK health service; and finally a personal reflective process on the themes that are addressed within the thesis. The critical analysis which brings the papers together as a thesis includes an overall introduction to the context for the investigations; an introduction to and analysis of the original contribution of each paper; and a final concluding section which takes a meta-perspective on the issues and themes that are investigated within the thesis.

The overall key contributions which emerge from this body of work include an analysis of the implications of the theories underpinning mindfulness-based approaches for MBSR/MBCT teacher training programmes; the introduction into the field of a new way of articulating the distinctive features of mindfulness-based competence, based on a synthesis of theories on competence in related fields with those on mechanisms underpinning mindfulness; identification of the key features of MBSR and MBCT teaching competence and the translation of these into a validated tool for assessing mindfulness-based competence; and finally platform research on the barriers and facilitators to MBCT implementation within the UK health service.

Acknowledgements

First and foremost I thank Richard Hastings whose support and mentoring of my work has gone way beyond the content of this PhD, and has enabled me to discover bridges between the worlds of academia and applied practice. Thank you also to Gemma Griffiths who generously stepped in as internal supervisor at a late stage in the development of the work.

I am blessed with a network of colleagues who are deeply committed to the integrity of mindfulness developments. Collaborations with Willem Kuyken have been particularly significant in enabling this body of work. Mark Williams has been an inspiration, friend and mentor for many years. The passionate, engaged and wise input from teaching colleagues who have collaborated in the work within this thesis has been crucial – particular thanks to Trish Bartley, Cindy Cooper, Alison Evans, Melanie Fennell, Jody Mardula, Sarah Silverton, Judith Soulsby and Christina Surawy. I am grateful to Steven Stanley and Michael Rooney who joined me for an enlivening and inspiring collaboration on Conversation Analysis; and to Catrin Eames who offered a range of supports including crucial (and patient) hands on statistical analysis training. Jo Rycroft-Malone helped me contextualise this work within the wider field of implementation science.

I was funded by a Wellcome Trust research grant (GR067797) led by Mark Williams and Ian Russell during work on this thesis. Ian Russell offered important support and encouragement to do this work alongside the other demands of this research.

I have been blessed with many teachers and friends over the years who have nurtured and developed the personal practice which sustains my life and my work. These include Rajmal Jain, Mettanando Bhikkhu, Jon Kabat-Zinn, Saki Santorelli, Melissa Blacker, Pamela Erdmann, David Rynick, Christina Feldman, David Elias and Martin Aylward. Ferris Urbanowski was a particularly seminal teacher at a turning point in my life - she recognised and encouraged possibilities in me that I didn't know existed and has been a constant friend of the mindfulness centre in Bangor. The participants on CMRP's training programmes have also been my teachers. I am grateful for the possibilities that each of you is seeding in the world and for your contribution to our understanding of how to support fledgling teachers.

Bangor University has provided a supportive context for the Centre for Mindfulness Research and Practice as the work has grown and evolved. I would like

to express gratitude to all my colleagues at our centre and in particular to Sharon Hadley, Eluned Gold and David Shannon.

Last but not least profound thanks to my family: to Mark for your steady love and beautiful holding of family life – you have made all this possible and you have an unfaltering confidence in me which is warming to live with; and to my children - Joel, Ellie and Freya – for your presence and for regular reminders of what is most important. May there be ease in the world that your generation grows up in.

I am deeply aware of the depth and breadth of the interconnected web of influences on this work. Thank you to all that has gone before that has enabled me to be exploring these questions at this time in history. May this contribution play a part in supporting the on-going flourishing of this work.

Introduction: Overview of and background to the thesis

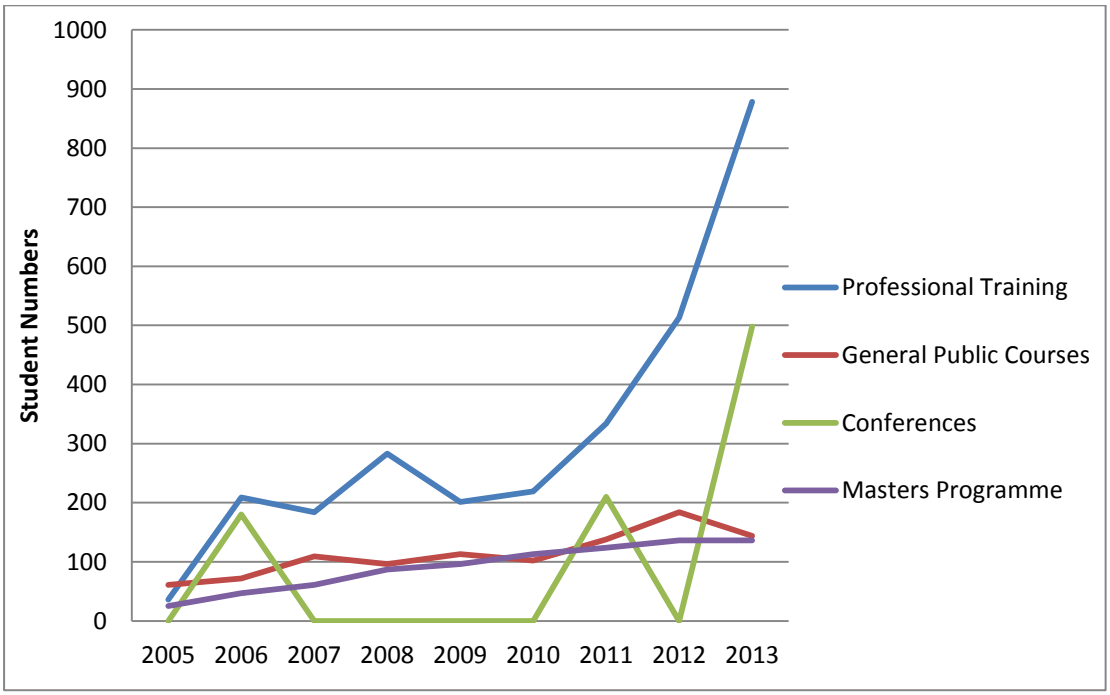
When the first paper in this thesis was published in 2010, ten years had passed since the publication of the seminal research on the efficacy of Mindfulness-Based Cognitive Therapy (MBCT) in reducing depressive relapse (Teasdale et al., 2000). This research, the MBCT manual which was published soon after (Segal et al., 2002), and the recommendation of MBCT for use within the UK health service (NICE, 2004), triggered an expansion of interest in mindfulness-based approaches. Whilst the focus for this early research and development was specifically on depression prevention the work captured wider interest. MBCT also brought the longer standing research and practice based work of Jon Kabat-Zinn and colleagues on Mindfulness-Based Stress Reduction (MBSR: Kabat-Zinn, 1990 & 2013), from which MBCT developed, to greater public awareness in the UK.

The development of MBCT also pioneered a new possibility – the integration of cognitive science with the MBSR course structure and process. By pioneering this integration, the MBCT developers offered a model that clinicians and researchers working with other populations could translate into their own context. A period of rapid expansion in the application of mindfulness-based interventions (MBIs[1]) has followed. They are being adapted, researched and applied across a range of patient groups including cancer, long term chronic health conditions, chronic pain, anxiety disorders, and health care professionals (e.g. see Fjorback et al., 2011 for review).

The expansion of outcome research on MBIs has also been associated with increased demand for MBSR/MBCT teacher training. This is illustrated in Figure 1 depicting the increase in numbers of participants in Bangor University's Centre for Mindfulness Research and Practice (CMRP) training programmes over the last eight years.

[1] In the context of this thesis the acronym 'MBI' is used as a shorthand for MBSR and MBCT.

Figure 1: Numbers of participants on CMRP training programmes 2005-13



The peer reviewed scientific journal papers which form this thesis arise directly out of questions that this increasing interest raises within the context of a mindfulness-based training centre. The CMRP was founded at Bangor University following the publication of the first MBCT research trial (Teasdale et al., 2000), as a direct result of developing demand for teacher training. Working with the processes that are inherently part of the transition from research to practice settings is at the heart of any professional teacher training organisation. In this context, these processes include developing understanding of the competencies that are necessary to teach MBSR/MBCT, and formulating and developing a programme of teacher training to develop and assess these competencies. Other issues include recognising and understanding the implementation challenges that trainees experience as they implement new skills in the complex context of front line of care. The tension underpinning all these issues is captured in the thesis title: 'from research to practice: integrity and pragmatics in implementing mindfulness-based interventions'. Pragmatism is important because a drive for unrealistic standards could become a barrier to accessibility; integrity is important because if there is dilution in standards, the aspects of the approach which enable the effectiveness of MBCT/MBSR could be lost. The challenge of implementing evidenced based practice is well recognised (e.g. Dopson et al., 2003), and includes the risk of a loss

of integrity in the transition from delivery of an intervention in a research context to delivery in a practice context.

I have been central to the development of training programmes for mindfulness-based teachers at Bangor University since the founding of CMRP in 2001. The questions examined in the thesis were thus presenting themselves as practice related issues which demanded responses in the everyday work of developing training programmes and supporting practitioners to implement mindfulness-based courses in their working context. The thesis presented an opportunity to systematically examine the implementation issues from practical, theoretical, and research perspectives, and to bring teams working in other training centres in the UK together to work collaboratively on them.

Questions examined within the thesis

Overarching thesis question

What processes need consideration and development to enable the evidence base on MBCT and MBSR to be translated effectively into practice?

Sub-questions

1. What are the distinctive features of competence in teaching mindfulness-based courses?
    - How can these be reliable and validly assessed?
    - What training methodologies effectively develop these competencies?

2. What factors influence the implementation of mindfulness-based interventions?
    a. What are the characteristics of successful and unsuccessful implementation of MBCT[2] services within the UK health service?
    b. What facilitating factors have enabled the successful implementation of MBCT in the UK health service?
    c. What barriers have prevented the successful implementation of MBCT in the UK health service?

[2] MBCT is referred to specifically here because it is recommended for use in the UK health service by a government advisory body (NICE). This has directly shaped the development of MBIs in the UK, and so the development of CMRP. CMRP has always however trained students in both MBCT and MBSR.

The next section aims to situate these research questions within the overall process of development and research on mindfulness-based interventions. The Medical Research Council (MRC) guidance on the development, evaluation and implementation of complex interventions is used as a framework to present the development of MBCT, and so to form the background context for these questions on implementation.

Evaluation of complex interventions

In 2000 the MRC published guidance which has since been updated (Craig et al., 2008) on ways of approaching the development, evaluation and implementation of complex interventions. The key point underpinning the guidance is that complex interventions that are designed to improve health present a range of challenges for evaluators and implementers.

What makes an intervention complex?

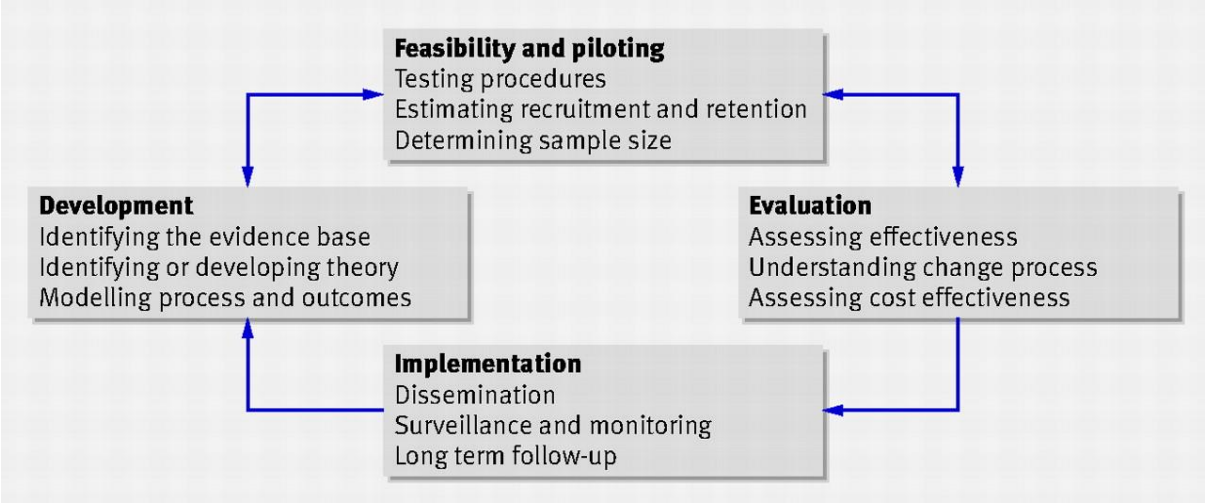
MBCT clearly maps onto the MRC criteria which define an intervention as complex (Craig et al., 2008). For example:

- it has a high number of different components that are likely to influence participant outcome (i.e. group delivery, range of teaching methods including didactic and experiential, participant and teacher meditation practice, home practice tasks);
- the complexity and subtlety of the behaviours required by those delivering the intervention are considerable. Key to this is the importance of embodying the qualities of mindfulness within the process of the teaching, and specific methods of conducting the interactional aspects of the curriculum;
- the range of contexts and populations that the intervention can be applied: MBCT was initially evaluated for a specific patient group but has since been extended to a diversity of populations and contexts;
- the number and variability of outcomes: MBCT influences a range of outcomes thus presenting researchers with complex choices during trial design;
- the degree and flexibility of tailoring of the intervention permitted: MBCT has been adapted for a range of populations and contexts which opens the question of what are the core aspects of the intervention which need to be in place to ensure fidelity and enable valid comparison of research results.

Steps to evaluating a complex intervention

Figure 2 diagrammatically shows the four steps involved in the MRC complex intervention framework. Importantly this shows how the process of evaluation involves continual movement through the steps as the questions that are being asked by evaluators change through the development of understanding during research. The MRC guidance emphasises how each step in the development, piloting, evaluation, reporting and implementation of a complex intervention are important: "too strong a focus on the main evaluation, to the neglect of adequate development and piloting work, or proper consideration of the practical issues of implementation, will result in weaker interventions, that are harder to evaluate, less likely to be implemented and less likely to be worth implementing" (Craig et al., 2008, p.4).

Figure 2: MRC steps in evaluating complex interventions (Craig et al., 2008)



The historical development of MBCT is presented below within this staged framework. This leads into an analysis of the contribution that the theoretical and research work presented in this thesis makes to the on-going development, evaluation and implementation of MBI's.

Stages in the evaluation of MBCT

The MBCT evaluation stages are summarised in table form first (Table 1) and then described in text below.

Table 1: Summary of MBCT development, evaluation and implementation process

Phase	***MRC stages***	***Work conducted***
1: Initial evaluation (2000)	Development	Theoretical groundwork conducted by Segal, Williams and Teasdale
	Feasibility and piloting	Piloting first iteration of MBCT
	Evaluation	First Randomised Controlled Trial (RCT) of MBCT
	Implementation	Publication of manual describing the approach
2: Replication of initial evaluation (2002-2004)	Development	Further theoretical exploration
	Evaluation	Replication RCT
	Implementation	MBCT cited by National Institute for Clinical Excellence
3: Further evaluations for people with three or more episodes of depression (2008 onwards)	Evaluation	Replications of original design testing the efficacy of the approach in different cultural contexts and with teachers who did not develop the approach
4: Evaluations of process (on-going since 2000)	Development and evaluation	Further development and testing of theoretical understanding through qualitative and quantitative research on mechanisms of action
5: Assessing cost-effectiveness (on-going since 2000)	Evaluation	Evaluations of cost-effectiveness embedded within RCTs

5: Evaluation of MBCT for different populations (on-going since 2006)	Development, feasibility and piloting, evaluation and implementation	Theoretical exploration to investigate the 'fit' of the intervention with new populations/contexts. These trials are often effectiveness trials conducted in pragmatic contexts
6: Evaluation of the implementation of MBCT (from 2010 onwards)	Development, feasibility and piloting, evaluation and implementation	Each of the four stages of the MRC evaluation framework are once again required to research the process of MBCT implementation

Phase 1: Initial evaluation

1. Development

The development process which led to the Teasdale et al. (2000) research trial is described by the three developers of MBCT in the manual of the approach (Segal et al., 2002 & 2012). Here the authors track the systematic steps they undertook once they had identified the problem (that people who have had depression repeatedly are highly vulnerable to future relapse), and had been awarded funding to develop an approach which targeted this problem. This work involved identifying the current evidence base related to depression recurrence; reviewing and developing theory on the nature of the particular vulnerabilities that people who experience recurrent depression carry (i.e. how does this vulnerability present and how is it triggered and maintained?); and analysing what approach/intervention might interface with this vulnerability.

2. Feasibility and piloting of intervention

The three developers of MBCT then tested their theoretical ideas out in practice though piloting a first iteration of an approach in the three study sites (Toronto in Canada, and Bangor and Cambridge in the UK). Various challenges and issues were raised by this work which led to significant adaptation to the programme followed by further testing of its feasibility by piloting. Key questions which were being examined

at this stage included: Do participants comply with the home practice requirement? What competencies are required by the teacher? Is it possible to recruit suitable participants to the group? Do participants stay for the full duration of the course? Are there indications that the programme successfully supports participants to develop skills that will help to prevent future depression episodes?

3. Evaluation

The efficacy of MBCT was then evaluated using an RCT design in the three sites. Participants were randomly allocated to receive MBCT or treatment as usual (TAU). The main research question at this stage in the development of the approach was whether the approach influenced depression recurrence. The primary outcome was therefore depression occurrence in the year following the intervention. The key results of this initial RCT were as follows:

- For participants who had suffered three or more episodes of depression, MBCT almost halved the rate of relapse over the following year as compared with the control group receiving TAU (66% relapse rate in the control group and 37% relapse rate in the MBCT group).
- For participants who had suffered only two previous episodes of depression, there was no significant difference in the rates of relapse between treated and non-treated participants.

This phase of evaluation included some process evaluation including investigation of the effects of MBCT training on autobiographical memory (Williams et al., 2000), a preliminary cost-effectiveness analysis reported in the main paper, and a qualitative analysis of the process of change (Mason & Hargreaves, 2001).

4. Implementation

"A complex intervention, however 'complicated', should strive to be reproducible. This means that you need a full description of the intervention, and an understanding of its components, so that it can be delivered faithfully during the evaluation, allowing for any planned variation and so that others can implement it outside your study." (Craig et al., 2008, p.14) The developers of MBCT addressed this phase of the process via publication of a comprehensive manual which described the whole process of theoretical development, piloting and evaluation, as

well as a comprehensive description of the approach week by week, with reproducible hand-outs (Segal et al., 2002).

Phase 2: Replication of initial evaluation of MBCT

The four stages of the MRC framework were undertaken again in the context of a replication of the initial evaluation (Ma & Teasdale, 2002).

1. Development

The key questions and uncertainties generated by the results of the first evaluation of MBCT were analyzed and the research questions which the next phase of research needed to address were identified:

- Could the positive results obtained in the Teasdale et al. (2000) trial for people with three or more episodes of depression be replicated?
- Would the results observed by Teasdale et al. (2000) for people with two or fewer episodes of depression (in which mindfulness did not reduce relapse) be replicated in a subsequent trial?
- Is MBCT specifically effective in reducing relapse in people who experience depression triggered by autonomous internal processes rather than relapse triggered by stressful life events?

(Ma & Teasdale, 2002)

2. Evaluation

The results of this replication efficacy trial demonstrated strikingly similar findings. MBCT more than halved the relapse rates for people with three or more episodes (36% relapse in MBCT group; 78% relapse in TAU group) Again in the group of people with two previous episodes of depression, the difference in relapse rates between the MBCT group and the TAU group was not significant. The findings indicated that the two groups of participants (those with three or more episodes and those with two or fewer episodes) tended to be different populations and therefore had different pathways to depression. The group with two episodes tended to have not had adverse childhood events, and their depression was preceded by difficult major life events; whilst the group with three or more episodes tended to have had

childhood trauma and earlier onset of depression. Research to date thus identified that those with more episodes of depression seem to benefit the most, but also indicated that the vulnerability that MBCT works most effectively on is related to the participant's pathway to depression rather than actual number of episodes. The uncertainties that remained in this area became a focus in following research phases.

3. Implementation

The results of these two initial trials strongly indicated that MBCT is efficacious in reducing the relapse rate of people who have experienced three or more episodes of depression. On the basis of these results MBCT was cited by the UK's National Institute for Health and Clinical Excellence (NICE) as a recommended treatment for people who are 'currently well but have experienced three or more previous episodes of depression, because this may significantly reduce the likelihood of future relapse' (NICE, 2004, p. 76). Getting an approach formally built into policy guidance in this way is an important step in supporting the translation of evidence into practice, but, as evidenced by a paper in this thesis (Crane & Kuyken, 2012), is not enough to ensure systematic uptake.

Phase 3: Further evaluations for people with three or more episodes of depression

The next phase of developing and evaluating MBCT involved evaluations of its efficacy when taught by teachers who had not developed the approach (the developers Zindel Segal, John Teasdale and Mark Williams had been the teachers in the first two trials), and when taught in different cultural contexts. Importantly, at this (still early) phase of evaluation the designs faithfully replicated the trial design described in Teasdale et al. (2000) and the intervention methods described in Segal et al. (2002 & 2012).

In 2011, Piet and Hougard brought the outcomes of these first three research phases together through a meta-analysis of the first six randomised controlled trials (*N*=593) of MBCT (Bondolfi et al., 2010; Godfrin & Heeringen, 2010; Kuyken et al.,2008; Ma & Teasdale, 2002; Segal et al., 2010; Teasdale et al., 2000). They concluded that "MBCT is an effective intervention for relapse prevention in patients with recurrent major depressive disorder in remission, at least in case of three or more previous Major Depressive Disorder episodes" (p. 1032).

The development picture from here on becomes significantly more complex as the research questions and directions diversify. The following is not intended as a complete review of MBCT research but is illustrative of research trends. The phases described below are concurrent and on-going.

Phase 4: Process evaluations

Having established evidence demonstrating the efficacy of MBCT it is important to test the proposed theory of change, and to further develop understanding of *how* the intervention works. The process of discovering what the active ingredients of an intervention are and how they are achieving their effects enables understanding of causal mechanisms. This can in turn inform fine tuning of the intervention. For example, Kuyken et al.'s (2010) research on mediators and moderators established that cultivation of both self-compassion and mindfulness plays an important role in protecting participants from future depression. Research by Williams et al. (2013) employed a dismantling design which compared MBCT to an 8-week course which included all the elements of MBCT except the participants' meditation practice. This demonstrated that the mindfulness meditation training component of MBCT provides significant protection against relapse for participants with increased vulnerability to depression due to history of childhood trauma, but did not reduce depression in those with no history of childhood trauma. This result built on earlier findings related to the differential effects for people with varying numbers of episodes of depression (Ma & Teasdale, 2004), and suggests more strongly that MBCT is most efficacious for those whose vulnerability to depression has been present since childhood.

Qualitative evaluations also play a key role in establishing mechanisms. Malpass et al. (2012) conducted a meta-ethnography of 14 qualitative studies evaluating how participants experience the MBSR/MBCT programme and identified three phases to the learning process: perceived safe certainty, uncertainty and grounded flexibility. The results map onto the developing theories on the mechanisms of action for mindfulness-based approaches as well as onto social theories of transformation in relation to chronic illness.

Phase 5: Assessing cost-effectiveness

Assessing cost effectiveness is an important part of ensuring that research results are useful to decision makers. A key initial premise for embarking on the MBCT research journey was that depression presents a huge economic as well as personal and social burden on society (Segal et al., 2002 & 2012). Analysis of cost-effectiveness has not been rigorously included in MBI research to date and further evaluations are needed (Edwards, Bryning & Crane, 2014). An exception to this is Kuyken's et al.'s research (2008) which indicated that MBCT is more expensive than maintenance antidepressants in first 12 months but that after this MBCT becomes more cost effective.

Phase 6: Evaluation of MBCT for different populations

The MBCT developers pioneered the potential of applying a cognitive scientific based problem formulation approach to the process of adapting mindfulness training to a specific disorder (Teasdale et al., 2003). Since this point many clinicians and researchers have developed and evaluated the effectiveness of new versions of MBCT through an analysis of the ways in which the MBCT training process interfaces with the critical variables underlying vulnerability for other populations. This work encompasses all four stages of the MRC framework because it involves theoretical analysis to inform programme development; piloting of the adaptation; and then the evaluation and implementation stages are often conducted simultaneously because these trials are frequently situated in pragmatic practice settings. There is not scope to list these all here but they include bi-polar (Williams et al., 2008), anxiety (Evans et al., 2008), cancer (Foley et al., 2010), chronic fatigue (Rimes & Wingrove, 2007) and insomnia (Heidenreich et al., 2006).

Phase 7: Evaluation of the implementation of MBCT

In an editorial analysing the current state of the MBCT evidence base and the remaining uncertainties, Kuyken, Crane & Dalgleish (2012) highlight a substantial gap between the efficacy research and the implementation of MBCT in routine practice settings. Following on from this they identify four priority research agendas. The fourth of these relates to implementation: "What are the facilitators and barriers to implementation of NICE's recommendations for MBCT in the UK's health services? Can this knowledge be used to develop an implementation plan for

introducing MBCT consistently into NHS service delivery?" (p. 3). Alongside on-going questions about the potential of the approach for different populations and contexts, and about mechanisms, the implementation challenge is increasingly becoming an important aspect of MBCT research. The questions examined in this thesis belong in this phase of the evaluation of mindfulness-based interventions. The next section summarises the contribution that the papers in this thesis make to the evaluation of the implementation of MBCT, including which of the four MRC stages is addressed.

The contribution to Phase 6 made by the papers within this thesis

- [3]The two first papers of this thesis (Crane et al., 2010 & 2012) fit within the development phase where the priority is to identify and develop theory. Paper 1 does this in relation to training for mindfulness-based teachers, whilst paper 2 analyses the distinctive features of competence in mindfulness-based teaching.
- Paper 3 (Crane et al., 2013) spans stages 1-4 of the MRC framework. It builds on paper 2 by describing the development of a tool to assess mindfulness-based teaching competence, and pilot research on its psychometric properties. The research includes implementation because the tool was being tested in the practice setting of three university-based Master's programmes.
- Paper 4 (Crane et al., 2014) examines the question of the particular features of competence in the context of mindfulness-based teaching using a new methodology to enable new perspectives to emerge. It presents a Conversation Analysis of a distinct aspect of mindfulness-based teaching – the inquiry process (the form of conversation which take place between teacher and participants during the sessions). The paper is an evaluation of the process of the intervention. It also meets some of the objectives of the development, feasibility and piloting phases as part of its aim was to theoretically and practically evaluate the relevance of CA methods to MBI pedagogy.
- Paper 5 (Crane & Kuyken, 2012a) fits within the development and feasibility/piloting stages of the MRC framework. It presents a preliminary theoretical analysis of MBCT implementation issues and a survey of

[3] NB. The six papers are not presented in the chronological order in which they were published. The order is informed by sequencing the progression of thesis themes.

stakeholders, which tested the feasibility of conducting a more rigorous scoping of implementation activity across the UK.

- Paper 6 (Crane, 2014) is a personal reflective exploration of my own process as I examined the questions within this thesis. This is an important element of the whole because it brings to the fore a key theme of this thesis - i.e. that in the context of MBIs, integrity needs to include conscious awareness of the influence of the practitioner's personal interior world on their behaviour and actions.

The six papers are brought together as a thesis through a critical analysis which includes this introduction, an introduction to and analysis of the distinct contribution each paper makes, and a final concluding section[4]. The overall key contributions which emerge from this body of work include an analysis of the implications of the theories underpinning mindfulness-based approaches for MBSR/MBCT teacher training programmes; the introduction into the field of a new way of articulating the distinctive features of mindfulness-based competence, based on a synthesis of theories on competence in related fields with those on mechanisms underpinning mindfulness; identification of the key features of MBSR and MBCT teaching competence and the translation of these into a validated tool for assessing mindfulness-based competence; examination of a method which could inform future competence work; and finally platform research on the barriers and facilitators to MBCT implementation within the UK health service.

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[4] NB The references for the critical analysis are given at the end of each section of the critical analysis.

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Introduction to Paper 1: Training teachers to deliver mindfulness-based interventions: learning from the UK experience

Crane, R.S., Kuyken, W., Hastings, R., Rothwell, N., Williams, J.M.G. (2010). Training teachers to deliver mindfulness-based interventions: learning from the UK experience. *Mindfulness,* 1, 74–86. doi: 10.1007/s12671-010-0010-9

This first paper considers an important aspect of successful implementation of a new approach – that of training practitioners in appropriate skills, attitudes and knowledge to equip them to deliver the programme with integrity. It sets the context for the thesis, orientating the reader to issues and themes that will be examined in following papers.

The paper critically analyses the distinctive features of training programmes which prepare practitioners to deliver mindfulness-based interventions, with an international perspective but drawing on UK experience. The current status of mindfulness-based training processes in the UK is presented; a key psychological theory underpinning the rationale for MBIs - that of doing and being mode of mind - is investigated in terms of the implications that it has for training programme design; the structures and methods employed within MBI teacher training are presented and the rationales for them investigated; and the remaining uncertainties, challenges and questions for the field in this area are outlined. A central aim of the paper was firstly to present a theoretically underpinned position statement on these questions, and secondly to highlight that research and discourse on these issues are needed because integrity relies on them.

The authorship of the paper was strategically selected to ensure representation from the main MBSR and MBCT training centres within the UK. The UK context was thus used as a ‘case study’ or a vehicle through which the issues, which are generalizable to the international context, could be examined.

When this paper was published in 2010 it broke new ground. Views and information on training were held on programme websites and leaflets across the world. However, although there was a plethora of papers published with ‘mindfulness’ in the title (see Crane et al.,2010, p.74), this was the first published article in the field to specifically address and analyse questions relating to training, competence and implementation. It was also the first to analyse how theories regarding psychological mechanisms of mindfulness map onto and inform training

programme design and methods. By approaching the issues from this recognised theoretical perspective, the paper offered a model and language for bridging the paradigm of mindfulness with that of the outcome literature on MBIs.

The paper identifies that within the body of literature on MBIs there is a lack of linkage between practitioner oriented accounts of the teaching process with literature reporting the outcome evidence base. This presents a risk to the field because the rapidly growing evidence base creates a pressure to expand the work. The work can only expand with integrity if there is clarity and consensus on issues related to standards, training methods and teaching competence, and if these are communicated and disseminated in ways that reach all the stakeholders in the implementation process. Further theoretical and empirical work on training, competence and implementation is therefore required. The paper thus offered a position statement on training methods, an analysis of the tensions that exist at this point in the developmental trajectory of MBIs, and communicated the importance of systematic exploration of the interface between research and practice.

Introduction to Paper 2: Competence in teaching mindfulness-based courses: concepts, development, and assessment

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, 76-84, DOI: 10.1007/s12671-011-0073-2

This paper builds on Paper 1 by narrowing the focus to a specific examination of mindfulness-based teaching competencies. It addresses the questions: What does competence mean in this context? What are the core elements of teaching integrity? How do these develop? How can they be assessed? The paper draws on the ways that competence is addressed in related fields and examines the factors that are generic and those that are unique to the MBI teaching competence context. The need for a workable tool to enable valid and reliable assessment of teaching integrity and competence is identified.

The paper brings together and analyses theoretical themes within literature from three sources - practitioner literature on the qualities of MBSR and MBCT teachers; literature on intervention integrity and competence in related fields; and the two existing empirical analyses of adherence, intervention integrity and competence in the mindfulness field (Chalwa et al., 2010; Segal et al., 2002).

The paper arose out of the UK context for MBI development. A particular factor influencing the discourse on the integrity of MBCT and MBSR here is that the developments have always been strongly situated in the mainstream – i.e. government funded bodes such as the health service and universities. This has created an impetus to address challenges in ways that are compatible with and recognisable by mainstream contexts. For example:

- worldwide there are only three university based Master's programmes which train practitioners to deliver MBSR/MBCT and these are all located in the UK. To validate and govern the programmes and assess students' progression through them, there need to be systems and processes in place that meet institutional requirements.
- MBCT is recommended for use within the UK health service by a government advisory body. This creates an impetus to formalise issues such as minimum training standards, competences, and good practice requirements.

So, although mindfulness colleagues in other countries were grappling with similar issues and questions relating to the development of understanding on competence, training and good practice, there was not the same drive to operationalise the outcomes from these explorations; nor has there been the same impetus to ensure that language used is appropriate for and compatible with formalised, structured and mainstream institutional contexts.

Prior to the publication of this paper the discourse in the field internationally tended towards highlighting what is unique, different and rarefied about the requirements of teachers of MBSR and MBCT. Much of this was fuelled by concern from within the field about the potential for dilution of integrity which may occur in the context of rising demand for teachers. By contrast, this paper set about to explore bridges and parallels that might be built between the field of MBIs and related fields. It thus paved the way for the challenges related to operationalizing competence to be explored within an established framework and body of knowledge – that of 'intervention integrity'. This has caught interest within the field. Shortly after the publication of the paper I was invited to offer a keynote presentation at the 10th international scientific conference led by the Center for Mindfulness in Massachusetts, USA on the theme of MBI teaching competence and how it can be operationalised[5]. A central message of the paper and the keynote was the importance of bridging the positions and perspectives of the various stakeholders in the implementation process. Typical positions and perspectives of MBI teachers and trainers include:

- holding a vision of moving towards expanding the accessibility of MBIs within mainstream institutions such as healthcare, education and workplaces;
- holding concerns about the risk of a dilution of integrity in the context of expanding demand.

Typical perspectives of managers and commissioners from healthcare, education and workplace institutional context include:

- an aspiration to implement an approach that holds promise of positive outcomes;

[5] Crane, R.S. (2012) Growing teachers in a time of growing interest in mindfulness: investigating the challenge of mindfulness-based teaching competence. Keynote presentation at 10th Annual International Scientific Conference on Mindfulness, University of Massachusetts Medical School, Boston, Massachusetts. April 2012

- a lack of understanding of the particular requirements to enable implementation;
- a desire to keep the cost of implementation to a minimum.

To enable conversations to commence across this potential divide MBI practitioners need to communicate in language that is understood in the institutional context. The paper was primarily targeted towards practitioners within the field and was proposing a shift in approach – i.e. that it serves the integrity of the field if ordinary language is used to communicate standards and competence, and if parallels (rather than differences) are drawn with the ways that intervention integrity is addressed by related approaches. The paper thus acted as an 'opener' paving the way for dialogue and conversation within the field, and for the development of the Mindfulness-Based Intervention: Teaching Assessment Criteria (MBI:TAC).

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Introduction to Paper 3: Development and validation of the Mindfulness-Based Intervention: Teaching Assessment Criteria (MBI:TAC)

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.* 20, 681-688, doi: 10.1177/1073191113490790

This paper continues the thread of exploration established in Paper 2 by presenting the development of a system for assessing mindfulness-based teaching integrity - the Mindfulness-Based Interventions-Teaching Assessment Criteria (MBI:TAC) (Crane et al., 2012) and preliminary research on its psychometric properties. The process tested the feasibility of developing a tool which can reliably assess all aspects of intervention integrity – adherence, differentiation and competence – in the context of both MBSR and MBCT teaching.

Bringing the two main MBIs together within the scope of the tool was significant. It underlined that the core teaching methods and processes are common between the approaches, with differences in curriculum being addressed within the assessment of adherence in Domain 1 (Coverage, pacing and organisation of session curriculum). This approach ran counter to some discourse within the field which tended towards highlighting the distinctions between MBCT and MBSR. A key impact of taking this line has been that MBCT and MBSR leaders (the two most prominent and influential interventions in the field), have now commenced conversations on collaboratively developing and disseminating the next phase of the MBI:TAC development.

A particular and unique contribution that the tool has made to the field is to propose that MBI intervention integrity can be operationalized by developing descriptors of teaching behaviour and levels of competence. This is an approach which has been adopted in related fields and indeed the MBI:TAC was modelled on the revised cognitive therapy scale (Blackburn et al., 2001; CTS-R). The key difference between the MBI:TAC and the CTS-R is the specificity towards the particular (largely process) skills required to deliver MBCT/MBSR.

As discussed in the introduction to paper 2, an important contribution that this work on competence makes is to employ language in the competence descriptors which (as far as is possible) is concrete, clear and objective. Anecdotal evidence

from MBCT practitioners who are implementing within the health service indicates that this work on competence alongside the UK MBI good practice guidelines (UK Network, 2011), has enabled fruitful negotiations and discussions with service managers and commissioners regarding integrity.

The tool developed out of the particular requirements to assess competence within the three mindfulness-based Master's programmes in the UK, but it quickly become clear that it has far greater applicability. The issue of assessing competence arises also for un-validated continuing professional development training programmes. As training processes become formalised, competence assessments are increasingly being integrated into training pathways to enable an award of 'certification of competence' rather than a simple certificate of attendance. Furthermore, many training programmes, supervisors and trainees are using the tool informally as a support to personal reflection on learning strengths and needs (e.g. Marx et al., 2013; Evans et al., 2014). The simple presence of the MBI:TAC alongside existing training processes has introduced a new dynamic. It communicates to trainers and trainees with a high degree of specificity the skills that are being cultivated during training, which supports greater clarity and intentionality.

There is often a strong pull to adapt evidence as it gets put into practice (Rycroft-Malone, 2012). In many ways this is a healthy dynamic which enables research findings to be successfully implemented by tailoring them to the pragmatics of the context. However, it is important that there is clarity about the original form of an approach and that any adaptations made to evidenced based interventions are formulated from a clear understanding of what the critical variables of the intervention are that create desired outcomes.

Understanding is still emerging regarding what factors within the pedagogical approach used in MBIs are most important. However, theory and evidence thus far supports the understanding that the process which facilitates change within course participants is a shift in perspective and relationship to experience. This can be conceptualised as a shift from 'driven doing' to 'being' mode of mind (Segal et al., 2012). One of the aims of the MBI:TAC was to give priority to the 'process' aspects of the teaching methods which are common to all MBIs (and which are thought to be key in supporting transformation), whilst enabling flexibility regarding particular forms of programme adaptation. The MBI:TAC also though honours the integrity of the

content and process of the MBI in question, whilst making room for the teacher to be aligned with their own process and the immediacy of the moment.

A number of reviews of MBI research have pointed to the importance of ensuring and measuring the fidelity of the approach and the quality of the teaching (e.g. Fjorback et al., 2011). Increasingly these variables are being more systematically reported on and accounted for within research trial design (e.g. Kuyken et al., 2010). Researchers are now accessing the MBI:TAC materials to investigate the potential for using it as a tool within future research. The MBI:TAC has also been used in a research trial in the Netherlands to examine the potential connections between competence (as assessed using the MBI:TAC) and participant outcome (Huijbers et al., in preparation).

In summary, there is considerable and developing interest in the MBI:TAC. The MBI:TAC authors have offered a number of workshops on its use and a podcast interview[6], and the CMRP is now responding to demand by routinely including master classes to train practitioners in the use of the MBI:TAC. The development of the tool and the research on its psychometric properties has evidenced that it is possible for experienced trainers to agree on descriptors of MBI teaching competence; and that experienced trainers who are trained in the use of the tool can use it reliably. This provides a platform for future development in this important area of exploration.

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[6] Crane, R.S. & Kuyken, W. (2013) Building Integrity The Mindfulness-Based Interventions: Teaching Assessment Criteria, Preconference day long institute at the Mindfulness in Society conference, Bangor University
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Podcast interview - http://presentmomentmindfulness.com/2014/10/episode-032-rebecca-crane-competence-in-teaching-mindfulness-based-courses-concepts-development-and-assessment/

Note: Appendix 1 includes: a more detailed version of the MBI:TAC's development process than is presented in the paper; standard operating procedure, participant consent forms and information sheets for the research; and the MBI:TAC itself.

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Introduction to Paper 4: Disciplined Improvisation: characteristics of inquiry in mindfulness-based teaching

Crane, R.S., Stanley, S., Rooney, M., Bartley, T., Cooper, C., Mardula, J. (2014). Disciplined Improvisation: characteristics of inquiry in mindfulness-based teaching, *Mindfulness,*

This paper reports research on the interactional practice within MBSR and MBCT classes known as 'inquiry' using an applied Conversation Analysis (CA) method. The method was chosen as a response to questions that emerged through developing and researching the MBI:TAC.

The MBI:TAC development process, and the results of the two research studies on its use (Crane et al., 2013; Huijbers et al., in preparation) generated intriguing questions and challenges. One question relates to the reliability of the tool. The inter-rater reliability of the tool was moderate in the original evaluation but was weaker when the tool was used in the Dutch context in Huijbers' research (see Table 1). Further research is needed to examine whether this was due to the tool not being easily transferable to (i) other trainers who had not been involved in developing it; or (ii) other cultural contexts where English is not the first language; or (iii) that raters need more training in the use of the tool to develop precision in applying the competence level and domain descriptors (the Dutch trainers had only half a day of training compared to many hours of engagement in the development process that the raters in the Crane's study had).

Table 1: Comparison of inter-rater agreements between two MBI:TAC studies

	Percentage agreement between raters in terms of percentage of absolute agreement		Percentage agreement between raters when adjacent scores were included	
	lowest	highest	lowest	highest
Crane et al	53	65	93	100
Huijbers et al	25	40	79	89

Another possible influence on the reliability of the tool is the level of accuracy and specificity of the descriptors. Experience of training others in the use of the tool has led us to recognise that the subjectivity of some descriptors leaves room for raters to apply their own interpretations which reduces reliability. This issue points to a key tension– i.e. that the descriptors are attempting to describe processes and 'ways of being' within the teaching that are difficult to objectively define. However, exploring the potential to further refine the descriptors in the interests of improving the reliability of a future version of the MBI:TAC was one of the motivations for conducting this CA study.

The current MBI:TAC domains, key features and competence descriptors were arrived at through a series of analyses of DVD recordings of MBSR/MBCT teaching by experienced mindfulness-based teacher trainers (see Crane et al., 2013 for summary version and Appendix 1 for more detailed version of the MBI:TAC development process). In order to ensure that validity was built into the tool, it was important that this early development process was led by experts who have a depth of experience in the approach. The brief that the MBI:TAC development team gave themselves was to develop language that described what could be seen, heard and sensed when participating in the teaching. However, mindfulness-based trainers are used to experiencing the teaching process 'from the inside', and have a heightened understanding of the teaching aims and intentions. It is likely therefore that they will be influenced by what they can infer from their observations of the teacher in action, as opposed to maintaining a discipline of only seeing/hearing what is there to be seen/heard. This phenomenon is likely to reduce inter-rater reliability, and also has the potential of reducing the level of objectivity and precision of the actual domain and competence descriptors that were created during the development process.

This CA research process was an experiment in viewing the teaching from a new perspective. Like the MBI:TAC development process, the research also involved detailed analysis of (in this instance audio) recordings of MBSR and MBCT teaching but with a different approach to the task. CA is a naturalistic observational science of social life, which has the potential to enable accurate descriptions of observed phenomenon. Psathas advised that researchers try to adopt a neutral stance to the data and examine it through `unmotivated looking': 'the investigator is open to discovering phenomena rather than searching for instances of already identified and described phenomena or for some theoretically pre-formulated conceptualisation of

what phenomena should look like' (Psathas, 1990, pp. 24-25). The method therefore encourages a discipline of approaching the data without pre-formulated ideas or fixed meanings in words or idioms. There are inevitable limits for all researchers in being aware of and then to letting go of biases that influence how data is seen and interpreted. A limitation of this study was that two of the three researchers were trained mindfulness-based teachers and a third had a personal mindfulness practice. Inevitably this background has the potential to bias the interpretation of the results. The pragmatics of this research context led to these choices, but it would indeed be interesting to see the results of a future CA analysis of MBI teaching conducted by a researcher with no prior experience of mindfulness practice or teaching.

The three researchers in this study followed the three steps that support 'unmotivated looking' and so maximise reduction in bias as laid out by Hutchby and Wooffitt (2009) - first identify possibly interesting phenomenon; second, describe one particular typical occurrence of this pattern; third, return to the wider data to see if other instances of the phenomena can be described in terms of this account. Specifically within this study, the researchers:

1. independently listened to recordings and reviewed first draft non-annotated transcripts of inquiry sections that made up the data for the project;
2. met to review recordings and transcripts together and through this identified sequences that appeared to contain repeating forms of talk;
3. selected a narrower range of exemplars of repeating forms of talk for much closer scrutiny;
4. listened repeatedly to each recorded exemplar section and collaboratively transcribed qualities such as tone, pace, overlapping speech etc.

The second author on the paper was an experienced CA researcher and a key aspect of the training that he gave was to be aware of the potential for movement into interpretation at each of these iterative steps, and to repeatedly step back as far as is possible into 'unmotivated looking'. However, much the researchers aim to reduce the potential for adding meaning during the observational research stage, it is clear that 'talk' itself produces meanings. The method encourages clarity of focus on how interactional exchanges shape these effects.

Another feature of this study was that the three classes from which the data were drawn were offered in different contexts and to different populations. Again the study pragmatically drew on classes that were naturally taking place during the

period within which the ethics permissions for the study were in place. A legitimate question that this leads to is 'how reliable and generalizable are the study conclusions?' CA does not however adopt a statistical approach to collecting data samples. Heritage says: `CA adopts the naturalist's strategy of building up large collections of data from as many natural sites as possible. Like a good collection of naturalist's specimens these databases contain many variations of particular types of interactional events whose features can be systematically compared' (Heritage, 1988, p. 70). In some ways it was a strength of the study that there was diversity within the sample, and despite this some common conversational patterns were found. It will however be important for future research in this area to consider the issue of the type of class – and indeed to investigate whether there are patterns that are specific to particular forms of teaching context. The analysis within this study was intentionally broad to enable a wide spectrum view of overall patterns of interaction. Future studies can take next research steps by investigating these more nuanced and contextual questions.

The broad aim of the research was to pilot the potential of CA for this context. Within this there was a specific and a wider aim. The specific aim was to explore whether CA methods have the potential to inform future versions of the MBI:TAC. The broader aim was to conduct the first study which directly examines the pedagogy of MBIs. The first two papers in this thesis (Crane et al., 2010 & 2012) identified an imbalance between the strong outcome literature on MBIs and the dearth of studies on the teaching process, and the risks to integrity that this imbalance creates. This study was an opportunity to test the feasibility of directly researching the pedagogical process, and then to disseminate the results and the potential for further studies in this area.

The interactional practice of inquiry was chosen as a focus for the study firstly because CA lends itself well to the study of interaction, and secondly because inquiry is an aspect of the teaching which is the most obscure and challenging to developing teachers (and so potential insights from research could have direct applicability to training).

During the inquiry process five of the six MBI:TAC domains are concurrently in action – the teacher is adhering to the session curriculum (domain 1), the relational process between teacher and participant is enacted (domain 2), the teacher is embodying the learning themes (domain 3), is conveying course themes

through interactive inquiry (domain 5) and is holding the group learning process (domain 6). There is not the scope here to analyse the detailed implications of the outcomes of the research to descriptors in each of these domains. However, there clearly are implications which are briefly summarised here.

The research findings reveal three interactive patterns ((i) turn taking talk that involves questioning and reformulations; (ii) the development of skills in a particular way of describing experience and (iii) talk that constructs inter-subjective connection and affiliation). These are not new insights – they map onto theoretical analyses and practitioner accounts of MBIs. However as presented in the paper and the online resource, CA methods 'unpack' in detail *how* these patterns are enacted. For example, the CA research revealed that the teachers proactively shaped the direction of the conversation through actively redirecting the focus, talking over participants and rephrasing and reformulating participant contributions. This style of interaction is not generally talked about in the practitioner literature on mindfulness which tends to emphasise the open, exploratory, participant focused aspect to the process. CA thus has the potential to side step ideas and interpretations about the teaching, and to reveal it as it actually takes place within the classroom. This is a new contribution which could inform future developments in two broad areas:

1. Refining the MBI:TAC descriptors

The MBI:TAC descriptors could be reviewed and refined by applying CA methods to the analysis process, and by including an expert in CA methods who is not a mindfulness-based teacher/trainer within the team to ensure that in-depth experience of the teaching process is combined with skills in objective observation of phenomenon. The research has revealed that it is possible to be more explicit about what happens in inquiry - the style of conversation in mindfulness-based classes is particular and follows consistent patterns and 'rules'. A future iteration of the MBI:TAC could make these patterns more explicit by refining the descriptors to ensure that they have greater specificity about the actuality of observed interactional competencies.

2. Integrating CA methods into teacher training

CA methods could be integrated into the training of MBI teachers. Training groups could view clips of their own and others teaching followed by trainer led dialogue to

invite recognition of the interactional patterns that are being displayed. This approach has the potential to 'demystify' a process that many trainees find challenging to develop competence in.

In conclusion, the CA method can provide useful perspectives because it encourages a particular focus on what is immediate and tangible within conversational practices. However, this also points to a caution. The MBI teaching process is extraordinarily complex, multi-faceted and multi-dimensional. The method's capacity to highlight the tangible is also a limitation because it has an exclusive focus on communication and does not have the capacity to capture the multiple dimensions to the mindfulness learning process. MBI teaching uses communication through language within the learning process because this is necessary. However, it also recognises that words are simply pointing towards dimensions of experience which are beyond language - and therefore by definition beyond the scope of CA to investigate. Future research on the pedagogy of MBIs needs to include a range of methods so that the multiple dimensions to the teaching process can be empirically revealed.

Note: Appendix 2 contains the NHS and School of Psychology participant information sheet and consent form for this study, and the online resource which accompanies the paper which includes further transcripts and their analysis using CA methods.

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Introduction to Paper 5: The implementation of mindfulness-based cognitive therapy in the UK Health Service

Crane, R.S & Kuyken, W. (2012). The implementation of mindfulness-based cognitive therapy in the UK Health Service. *Mindfulness*, doi: 10.1007/s12671-012-0121-6

This paper presents data from a survey of stakeholders across the UK who are involved in the delivery of MBCT[7] services in the UK health service. It includes a preliminary analysis of the status of MBCT implementation in the UK, and of the barriers and facilitators to its uptake. The rationale for engaging in this study is captured in the first sentence of the paper: "Even if a psychosocial intervention has compelling aims, has been shown to work, has a clear theory-driven mechanism of action, is cost-effective and is recommended by a government advisory body, its value is determined by how widely available it is in the health service." (Crane & Kuyken, 2012, p. 246). Through conversations with trainees on our programmes who were working to implement MBCT in locations across the UK I was getting an increasing awareness of the complexities and personal frustrations involved with getting new evidence into practice. Even when multiple factors are in place that are likely to facilitate successful implementation there are still a considerable number of systemic barriers to enabling accessibility. Quality training programmes, clarity about and systems for assessing competence, and setting up the UK network of training organisations were all important contributors to successful implementation. However these did not guarantee that newly skilled and competent trainees would be able to deliver in their organisations.

As a response to this, I decided to submit an abstract (see Appendix 3B) to Bangor University's 2011 mindfulness conference to deliver a workshop for MBCT teachers on the theme of implementation. I invited collaboration with Willem Kuyken who was hearing similar themes being expressed by trainees on Exeter University's MBCT master's programme. The aim was to facilitate a process which would enable practitioners to hear exemplars of good implementation practice, and to stimulate collective understanding of what factors operate as facilitators and barriers to uptake of MBCT in the health service. To enable wider dissemination and a more

[7] MBCT is the focus for this paper because the research was specifically investigating the uptake of the NICE recommendation of the approach for use within the health service.

systematic exploration of the issues, an online survey of workshop participants and later of other stakeholders across the UK was integrated into the process. The results of this survey form the substance of the paper.

The paper acts as a position statement highlighting implementation as an important research agenda going forward. A search conducted in December 2013 in Web of Knowledge, Science Direct and Google Scholar using the terms "Mindfulness-Based Cognitive Therapy," "MBCT," "mindfulness + implementation," "mindfulness + knowledge transfer" still only yields only two studies (the paper under discussion, and Patten & Meadows, 2009) demonstrating the paucity of research in this area. As outlined in the thesis introduction, the MRC explicitly highlights the importance of systematic attention and research on the implementation questions (Craig et al., 2008). In an editorial Kuyken, Crane & Dalgleish (2012) highlight four key questions that future research on MBCT should seek to investigate. One of these drew on the results of this paper to underline implementation as a priority research agenda in the next phase: "What are the facilitators and barriers to implementation of NICE's recommendations for MBCT in the UK's health services? Can this knowledge be used to develop an implementation plan for introducing MBCT consistently into NHS service delivery?" (p.3). This question subsequently became the basis for a successful grant submission to the National Institute for Health Research which is now underway (Rycroft-Malone et al, 2014; and see http://www.exeter.ac.uk/mooddisorders/aspire/).

An important contribution of this paper was to put the challenge of MBCT implementation into the public domain, and as mentioned this has already led to a comprehensive research programme in this area. It has also started the process of building connections between MBCT practitioners across the UK. This has been built on by a further day long institute attended by 50 practitioners[8]. These processes are enabling practitioners to perceive their own implementation practice in a wider context of understanding. It is tremendously supportive to recognise that there are predictable factors which influence implementation. Some of these are amenable to influence by individual practitioners, others are beyond their control. Some are specific to MBCT practice, but many are generalisable implementation challenges

[8] Crane, R.S. & Kuyken, W. (2013) Implementation of Mindfulness-Based Cognitive Therapy in the Health Service, 1 day post conference institute at Bangor University's Mindfulness in Society conference, http://www.cmrpconference.com/index.php/2013

faced by any new evidence as it translates into routine practice. It has become clear that the simple act of raising implementation as a focus for exploration has a positive influence on successful implementation. It empowers stakeholders with new perspectives that they can use in their local context to influence change.

The survey in paper 5 (Crane & Kuyken, 2012), and the evidence that is emerging from the current implementation study (Rycroft-Malone et al., 2014) shows strong grassroots appetite for implementing mindfulness, in part because it offers a counterbalance to the prevailing culture. It becomes clear when considering MBCT implementation that it is more than a discrete intervention for patients that is being implemented. The training that clinicians undertake to deliver MBCT involves considerable personal transformation (Reid, 2013), which will inevitably have an influence within the organisation on a wider level. This dynamic has considerable societal implications which deserve further research.

Successful implementation depends on a wide range of people who are stakeholders in the change process. In the context of MBIs, this includes the teachers, trainers and trainees; university and health care service managers involved in governance related to teacher training programmes and patient care; participants in MBCT and MBSR classes; policy makers; service commissioners; and academic researchers. Creating optimal conditions for implementation requires understanding of the perspectives and behaviours that need to change, barriers and facilitators to change, and the expertise to develop strategies to achieve change based on this understanding (Rycroft-Malone, 2012). This seminal paper on MBCT implementation opened explicit investigation of these issues.

Note: Appendix 3 contains the participant survey questionnaire, implementation workshop abstract, consent form and participant information sheet for this study. Work on the paper also involved the development of an ‘MBCT Implementation Tool Kit’ which has been made freely available online to support MBCT teachers working in the NHS to successfully implement the approach (Kuyken, Crane & Williams, 2012).

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Introduction to Paper 6: Personal Reflective Process

Crane, R.S. (2014) Some Reflections on Being Good, On Not Being Good and On Just Being, *Mindfulness*

The final paper of this thesis was initially intended as an unpublished part of the overall submission. However, I decided to submit it for publication because the themes that are explored in this piece are highly prevalent amongst trainee mindfulness teachers, and I took the view that it would be useful to have this in the public domain. It is also an important aspect of the overall thesis submission because the learning journey that I have engaged in while undertaking this thesis has taken place on a number of levels including the personal. Mindfulness practice reminds us, and enables us to consciously work with the continual influence of personal interior experience on our behaviour, actions and choices. This reflective piece offered an opportunity to bring to the fore some of this 'back story' that has influenced the production of academic outputs.

Discussion and Conclusions

The process of implementing new evidence is complex and multi-dimensional. It was necessary that the first phases of MBI research were largely focused on establishing efficacy and mechanisms. However, given the expanding demand that this evidence creates for implementation from policy makers, trainees, and the general public it is important that systematic attention is now given to the process of translating evidence into practice. The papers in this thesis offer first steps in the development of theoretical and empirical literature in this under examined area, and are now stimulating discourse and further research. Each paper makes a seminal, unique and original contribution to the body of knowledge on the processes involved in implementation of MBI's.

In summary, Paper 1 (Training teachers to deliver mindfulness-based interventions: learning from the UK experience) analyses the rationales underpinning teacher training methods and the training models these lead to. Paper 2 (Competence in teaching mindfulness-based courses: concepts, development, and assessment) analyses the distinctive features of competence in this context and identifies the need for a workable tool for assessing teaching integrity. Paper 3 (Development and validation of the Mindfulness-Based Interventions – Teaching Assessment Criteria (MBI:TAC) reports the process of developing a tool to assess teaching integrity and research on its psychometric properties. Paper 4 (Disciplined Improvisation: characteristics of inquiry in mindfulness-based teaching) returns to the theme of the particular characteristics of the MBI teaching process using a Conversation Analysis approach to investigating inquiry. Paper 5 (The implementation of mindfulness-based cognitive therapy in the UK Health Service) considers the aspiration that all this work is leading towards – that evidenced based MBIs are accessible to the general public – and the challenges that are integral to realising this. Paper 6 (Some Reflections on Being Good, On Not Being Good and On Just Being) is an interior view onto the themes that are under examination through the thesis. In this final section, the thesis is concluded by an outline of the wider context within which implementation is taking place, and a summary analysis of the main conclusions and implications for this body of work in three areas - methodological and theoretical issues, research on MBI implementation and teaching/training practice issues.

This body of work in the context of wider developments

There has been an unprecedented expansion in interest and activity in MBIs within the period of time that this thesis has been written. The papers have considered teacher factors and other implementation questions for two specific approaches – MBSR and MBCT. However, there has been a proliferation of other models of MBI delivery, and of the range of contexts and populations that MBIs are being implemented within. Inevitably this strongly influences the on-going development and responses to the questions which have been under examination here.

Commonly the primary challenge faced during the often difficult transition of research into practice is how to enable uptake of new research. However, in some areas, the implementation is MBIs is now happening faster than empirical testing of the approach. For example, many schools are now implementing mindfulness training within their curriculum and there is strong appetite for scaling up delivery – constrained largely by lack of trained teachers to deliver. Alongside this the empirical evidence for mindfulness training in schools is still at an early stage (e.g. Kuyken, 2013), though there are a number of studies underway. Within the UK health care context, evidence from phase 1 of Rycroft-Malone et al's MBCT implementation trial (2014) shows that the availability of MBCT in line with NICE guidance (NICE, 2009) has expanded considerably since the first survey conducted during 2011 (Crane & Kuyken, 2012) - though there are still numerous areas within the UK where it is not available. However, mindfulness is also now being delivered within the NHS via a wide range of other models, and to a wider range of clinical groups than are recommended by NICE. Some of this practice is supported by research. Some is not.

It is not entirely clear what is fuelling the expansion of interest. There are probably a number of factors. There is currently a wave of policy interest in the potential of the approach in a range of areas including the health service, the justice system, the workplace and education. Over the last two years more than 120 parliamentarians in Westminster and the Welsh Assembly have themselves taken a mindfulness course, and an All Party Parliamentary Group on mindfulness has recently published its interim report (The Mindfulness Initiative, 2014). Mindfulness practice has also become a part of public discourse through a number of media reports and through greater accessibility to mindfulness training via self-help books

and digital delivery. We live in a fast paced, quick fix culture and it may also be that mindfulness is being seized upon as a potential way to live within the challenges that this presents. Whatever is fuelling the interest, it is clear there is considerable pressure to expand. The challenge for researchers, trainers and teachers working within the mindfulness field is how to skilfully respond to the pressure. There are tensions between the urgency to respond to the demand for greater teaching capacity, and the importance of ensuring that developments are sustainable and have integrity.

Furthermore, during the last five years the evidence base in this new field has expanded which presents new understandings that influence directions for implementation and future research.

In the next sections, summary implications and conclusions relating both to these wider contextual issues and to the investigations within this thesis are outlined in three areas - methodological and theoretical issues, research on MBI implementation and teaching/training practice issues.

Methodological and theoretical issues and implications

An inherent aspect to researching and implementing MBIs is that the approach is based within a paradigm that is radical, and is, in many of its dimensions, distinctly culturally different from the predominant culture within mainstream health and educational contexts where research and implementation is happening. The partnership of ancient practices rooted in Buddhist teachings with more recent Western traditions has tremendous potential and inherent tensions (Fennel & Segal, 2011). This theme runs through all six papers in the thesis.

Conversely, a concurrent theme throughout the thesis is the potential ways in which the mindfulness field could usefully build theoretical bridges with related fields. Within the competency paper bridges were built into the language, theory and culture of competence and treatment integrity assessment, and this was further developed in the MBI:TAC paper. The implementation paper draws on theory and research in the implementation science field. In both these instances, this has enabled next development steps to be contextualised in the main stream. In the context of the MBI:TAC a funding bid is in process to the American government research funder the National Institutes of Health. In the context of research on MBCT implementation, a team has made a successful funding bid to the National Institute for Health

Research and has published its protocol in the journal Implementation Science (Rycroft-Malone, 2014).

These first steps into theoretical and empirical bridging with other fields need building on in ways that enable MBIs to both retain their essential integrity, and to integrate alongside other mainstream developments. For example, it could be particularly fruitful to conduct analysis of the MBI:TAC domain 'embodiment' which is considered to be a key distinctive feature of mindfulness-based teaching. The proposition within the mindfulness field is that the work of embodiment is enabled through the teacher's personal mindfulness practice. Currently this stance is based on practitioner accounts (e.g. Segal et al., 2012), and by a practical pedagogical stance that participants in classes need to learn their mindfulness skills from someone who has greater experience than they have. It is also worth noting that the evidence base to date has been gathered through testing the outcomes of classes in which the teachers do have a personal mindfulness practice. The hypothesis does however need empirical testing as this area has enormous implications for training and implementation.

Theoretical work could also be conducted in this area to investigate and draw parallels with other therapeutic ways of being with have overlaps with the expression of embodied mindfulness. Indeed, work on this has already taken place on the parallels between mindfulness and person centred individual therapy (e.g. Crane & Elias, 2006; Cigolla & Brown, 2011). There is a high degree of theoretical compatibility between these areas from both a philosophical and an attitudinal perspective (Elias, 2001). A key difference is that in the context of mindfulness there is a methodology which supports the development of these qualities, and an emphasis on 'in-the-moment' phenomenological inquiry into the nature of experience. Furthermore, mindfulness has inherited from the Buddhist context from which it arose a set of ethical and attitudinal underpinnings, which have been translated into secular language through Kabat-Zinn's seven attitudinal qualities (2013). These give language to the qualities that are being expressed through embodiment. Rather than being an ideal to strive toward, embodiment is a natural outcome of the teacher's intention to inhabit the space of awareness in his or her own life and in the MBI classroom, to whatever degree possible in any given moment. In that spirit, it is a non-doing, rather than a contrivance or an attempt to artificially fabricate a particular state or adopt a particular mask or appearance.

These issues point towards the challenge of assessing competence in the context of embodiment. It is not a set of skills which can be developed – it is an honest, natural, authentic expression of the person that one is moment-by-moment. Inevitably this will vary from person to person and from culture to culture. In this context developing accurate descriptors of observable behaviours for the embodiment domain is challenging - and indeed may not be entirely possible. It is not surprising that within the research on the MBI:TAC there was least inter-rater agreement on the embodiment domain. There is much to be discovered in future investigations in this area.

This emphasis on the teacher's practice becoming an orientation to life, rather than being a set of professional skills which are developed to enable the work of teaching is characteristic of the approach. Kabat-Zinn spoke of his work as an opportunity to engage in the Buddhist concept of 'right livelihood' – earning a living through engaging in work that is congruent with the values of the practice (2011). There are also other approaches which emphasise the alignment between personal value systems and the way one lives (e.g. Acceptance and Commitment Therapy; Hayes, Stosahl & Wilson, 2011), and work could be done to draw theoretical and practical parallels here.

Given the rapid expansion in outcome research on MB approaches it is, on the face of it, surprising that there are so few systematic investigations of the pedagogy of the teaching process itself. It is though tremendously challenging to research the pedagogy of mindfulness teaching in ways that are both rigorous and lead to meaningful insights which might explain this apparent imbalance. Again though, bridges which could be built into the theoretical and empirical literature on related approaches to pedagogy and education could be tremendously fruitful.

The confluence of science with contemplative approaches such as mindfulness has been a tremendously fruitful convergence in recent years and continues to have rich potential (Williams & Kabat-Zinn, 2011). As the science continues to move into investigating new aspects to the process, exciting challenges emerge regarding how these investigations can encompass examination of the subtleties of the approach. There are interesting methodological challenges to examining a process which aims to support exploration of dimensions of human experience which are essentially un-measureable, unquantifiable and to which language can only point. Many of these challenges would be familiar to researchers

examining the process aspects of psychotherapy and education, and some are unique to a mindfulness context. It is important that the future research agenda embraces this challenge by employing a diversity of methodologies which enable different aspects of the teaching process to be revealed.

The importance of honouring and respecting the teaching process as it is investigated was expressed by Kabat-Zinn: “it is critically important to treat mindfulness and the traditions that have articulated it much as a respectful anthropologist would treat an encounter with an indigenous culture or a different epistemology. This intimate sensitivity will be necessary to understand, evaluate, and preserve essential elements of the universal dharma dimension of mindfulness practice as it is analysed by and incorporated into Western science” (2003, p.146-7). The evidence from this thesis does suggest that it is possible to approach the task of researching and investigating the MBI teaching process with these levels of sensitivity and respect, whilst also generating meaningful results which have practical applications. Indeed it is also clear that if this work does not take place there is a risk that the essential elements of the approach will not be respected as it increasingly becomes mainstream and subject to the pressures of these contexts.

Methodological and theoretical issues

Summary conclusions, implications and recommendations

- MBI intervention integrity (competence, adherence and differentiation) can be operationalized using accessible language whilst also honouring the complexity of the approach.
- Further research on MBI pedagogy is needed to support the integrity of developments within the field, and to redress the balance between the high volume of outcome papers and low volume of papers investigating teaching process.
- A range of research methods are needed which enable new and different insights and perspectives to emerge. The MBI teaching process is subtle and there is a risk that some approaches to research could miss the aspects of the process that are most important. Researchers and the research methods need to honour and respect the object of study.
- Theoretical and empirical bridges into related fields need to be developed to enable rigorous examination of the work of MBIs.
- Methodologies are needed which enable investigation of the relationship between the teacher's personal practice and the teaching process/participant outcome.

Researching the implementation of mindfulness-based interventions

Research findings are ultimately only of value if they find their way into practice. The complexities involved in enabling the change processes that are inherent in implementing research evidence are well documented (e.g. Kitson et al., 1998). Implicit in the impetus to support this movement is the belief that the implementation of good quality research is likely to lead to improved outcomes and greater quality of health care for patients. It is based on the evidence-based practice movement that has its origins in the 1980's and early 1990's. This in turn was based on the recognition that health care provision will always be constrained by budget limits, and therefore choices of what interventions and treatments to include within provision should be guided by evidence (Rycroft-Malone, 2010).

The investigations within this thesis are just the beginning of theoretical and empirical examinations of implementation issues that will need to be continually

integrated into the research agenda going forward. This thesis includes analysis of training methods, MBI teaching competency, the barriers and facilitators to implementation within the context of the organisation/institution, and the development of a system for assessing MBI integrity. These are each critical influences on successful implementation.

The thesis papers are underpinned by the premise that the process of implementation and related behaviour change is assisted by distilling and disseminating knowledge, views and evidence to the range of stakeholders in the change process. A key impact of the papers in this thesis has been a shift in the nature of the discourse on competence and training/intervention integrity within the practitioner community.

The initial target readership for Papers 1 and 2 were primarily MBSR/MBCT practitioners who were involved in training others to teach. The premise underpinning the papers was that there was a need to move the discourse that was prevalent internally within the field to a new level to enable consensus building, and the development of forms of language for mindfulness themes that are accessible to those outside the profession. This has already begun to form a foundation from which the field can then reach out to engage with other key stakeholders who are not 'inside' the work of MBIs. Anecdotal evidence from MBSR and MBCT teachers supports that negotiations with service managers and commissioners within the health service and subsequent implementation, have been strongly facilitated by the clarity of a consensual view on standards within the UK (UK Network, 2011), by the MBI:TAC (Crane et al., 2012a and 2013), and by literature on training (Crane et al., 2010), on implementation (Crane & Kuyken 2012; Kuyken et al., 2012) and on competence (Crane et al., 2012b). There is increasing political interest in MBIs which again draws on published literature related to both efficacy and implementation (Ruane, 2013). It is well documented that to have a chance of getting your findings translated into routine practice or policy, one needs to disseminate them in ways that are accessible and convincing to decision-makers (e.g. Rycroft-Malone 2012).

As discussed earlier, the papers in this thesis are all anchored to the manualised teacher led programme forms - MBCT and MBSR. However, many other models of delivery are now being developed and implemented. Methods include guided self-help (e.g. Niles et al., 2013), use of resources such as books and

workbooks (e.g. Teasdale, Williams & Segal, 2014), and computer programmes and phone applications (e.g. Gluck & Maercker, 2011). There are also teacher led 'low-dose' mindfulness programmes which have less face to face contact time and mindfulness meditations are reduced in length (e.g. Klatt, Buckworth & Malarkey, 2009). There is preliminary evidence of the efficacy of these developments (Cavanagh et al., 2014). However, there is much that is not known. A key premise of the work within this thesis has been that the subtle inner qualities of the teacher are important in facilitating change. With other methods of delivery becoming available, there is scope now to test this empirically, and to also investigate nuanced questions about what method of delivery is most effective for which groups of participants. Research is urgently needed to inform the direction of these developments.

Another area that has developed during the period of this thesis has been the expansion in the evidence base for MBIs. In particular, new insights into the clinical implementation of MBCT for people who are vulnerable to depression are indicating that the approach may be more helpful to some groups of people than others. Right from the beginning of research on MBCT it was found that the approach reduced risk of recurrence in patients with three or more prior episodes, while for patients with two prior episodes there seemed to be an increase in depression recurrence following MBCT compared to the control group (Teasdale et al., 2000; Ma & Teasdale 2002). When more studies are combined by meta-analysis this increase becomes marginally significant ($p = 0.07$; Piet & Hougaard, 2011). The Ma & Teasdale trial conducted some analysis of the differences between these two groups which revealed that the number of episodes may not be the critical determinant of vulnerability. They discovered that those patients who experienced three of more episodes tended to have an earlier age of first onset of major depression, so that their total length of history of depression was considerably longer than those with only two prior episodes (20 years versus 5 years). They also showed that depression recurrences in the group of patients with two prior episodes was more likely to follow a major life event whereas in the three or more prior episode group recurrence was more likely to have no detectable precipitating life event.

Since these first two studies there have been some fascinating results which call on the field to pause and reflect on directions for future research and clinical practice. Some research has confirmed the initial findings. For example, Godfrin et al. (2010) working in Belgium, found a reduction from 68% to 30% recurrence over

twelve months following MBCT in patients with three or more episodes. Other trials have though produced anomalous results. For example, the Segal et al., (2010) study reported no overall improvement in recurrence rate for either continued antidepressant medication or MBCT for the less vulnerable patients in their study (even though this group had experienced three or more episodes of depression). However, for those with unstable remission, both MBCT and antidepressant medication dramatically reduced depression recurrence. Those whose pattern of remission was unstable had a considerably higher risk of recurrence (71%) than those who were stable in their remission from depression (50% recurrence risk). Thus for the more vulnerable group of patients, both MBCT and antidepressants had a significant preventative effect, reducing the rate of depression recurrence to 27% and 28% respectively.

Williams et al's (2014) study was the first MBCT research to use a group intervention comparison condition, matched to MBCT for exposure to a teacher and group support, and for the psychological education about depression and how to meet it that the classes involve. The raw relapse rates for the 255 participants with follow-up data were 46% in the MBCT group, 50% in the group who had taken the psycho-educational group and 53% in the treatment as usual group. These differences are not statistically significant. However, analysis of a subgroup of patients within this trial – the most vulnerable people with a history of childhood trauma – show that the pattern for MBCT versus treatment as usual replicates the initial Teasdale et al. (2000) trial results. MBCT is more effective in preventing relapse to major depression than both psycho-education and treatment as usual when severity of childhood trauma is taken into account. Furthermore, the same trial (Williams et al., 2014) showed that MBCT had a larger effect on reducing suicidal despair than the other two groups, and that even if participants become depressed they are less likely to feel suicidal and despairing.

The picture is emerging from these trials that MBCT is particularly helpful for those people who are at the greatest risk of relapse or recurrence – and conversely that other approaches may well be more effective for people whose depression is of later onset in their life, who have had fewer episodes, are stable in their remission and who do not have a history of adversity or trauma. It is becoming timely for the NICE 2009 guideline on MBCT for depression to be reviewed so that clinicians can

have access to more nuanced recommendations regarding the targeting of MBCT towards particular clinical groups.

Researching the implementation of mindfulness-based interventions

Summary conclusions, implications and recommendations

- Investigation of the implementation process needs to be included in the on-going MBI research agenda.
- The results of implementation research should be disseminated through a range of methods because this process facilitates successful implementation.
- Implementation research should include investigation of the influence of mindfulness on the wider culture of the institution.
- Continued analysis of effective methods and language for communicating to the range of stakeholders who influence MBCT implementation is needed.
- The integrity of developments will be served if an empirical literature on the MBI teaching process is developed.
- Applied CA is a method that has potential to inform future refinement of the MBI:TAC and to investigate the teaching process.
- Research on the effectiveness of training programmes in developing competencies is needed.
- RCT trial design should build in assessment of teaching integrity.
- Further research investigating the links between participant outcomes and teaching integrity is needed.
- A review of the 2009 NICE guidance on MBCT is required to enable clinicians to have access to updated guidance on the implementation of the approach for people who are vulnerable to depression.
- Different delivery models to the manualised MBSR/MBCT teacher led format need empirical testing prior and during implementation.

Implications for mindfulness-based teaching and training practice

Intervention integrity is an important construct to understand and assess given its likely association with the success of the intervention and of implementation (Rycroft-Malone, 2012). Ultimately each MBI teacher and trainer takes responsibility for the way in which their practice contributes to the overall integrity of the approach. However, it is important that rigorous attention is given to the range of processes that support teachers and trainers to maintain integrity within the organisations where implementation takes place, and within training settings. The work conducted within this thesis has contributed clarity of understanding on training and competence. These have culminated in the development of a practical system for assessing competence which is being applied now in many training and teaching settings.

The developmental trajectory of cognitive behavioural therapy (CBT) is about 20 years ahead of MBIs, so there may be some useful lessons to learn from this implementation and dissemination process. In this context also there have been concerns about the gap between on the one hand the promising evidence base, the government recommendation of CBT, and on the other the lack of availability on the ground, and that even when the approach is available it is often delivered sub-optimally. A key way that the CBT field has addressed this issue is to pay strong attention to research on therapist factors, on implementation and on developing clear and robust professional practice conditions for CBT practitioners (Shafran et al., 2009). This is work that now needs attention within the MBI field. In the context of rapid development in the field there is a risk that integrity could be weakened which in turn could lead to compromised public confidence. It is particularly important that appropriate governance is developed so that mindfulness teachers working with integrity are not undermined by those who are not.

The developments on competence, training and implementation conducted within this thesis, brought three UK university mindfulness training centres into closer collaboration and alignment. The clarity this created has been a strong influence on professional practice issues across the whole of the UK (UK Network, 2011). Its value would though be limited if these developments did not connect with and influence developments internationally. Part of the aspiration behind the publication of these papers was that they could start conversation and collaboration with practitioners in the field on these issues and questions. This is now happening.

Mindfulness centres in UK universities are commencing collaborations with university training centres in the international context. An example is a research collaboration on the use of the MBI:TAC with colleagues at Radboud University in the Netherlands (Huijbers et al., in preparation). Formal collaborations are also developing between the MBCT leaders in the UK, and the MBSR leaders in the USA which have the potential to lead to dissemination of an international position on MBI integrity and research on the influence of the teacher.

As presented within the CA paper there is currently minimal data on the teaching/training process. One other study analyses the teaching process (van Aalderen et al., 2012). Marx and colleagues present a qualitative evaluation of trainee experience on an MBCT apprenticeship training (Marx et al., 2013). There is however no data addressing which specific teacher factors influence participant outcome, or which training processes facilitate development of teacher skills in training programmes. Defining which teacher-related factors can be feasibly measured and shown to predict participant outcomes is important in selection of teachers for MBI research studies and clinical delivery of evidence-based MBIs, monitoring of the quality of intervention delivery during research studies, and for strengthening teacher training for research and clinical programs. This is work that needs development in this emerging field.

There are though ways in which existing research could usefully point towards areas that relate to teacher factors. Firstly, process evaluations of mediators and moderators of outcome are increasingly being conducted as part of larger trials. These have the potential to offer important information about teacher factors that are highly likely to influence participant outcome. Three large MBCT trials which are in process with reporting outcomes all include analysis of mediator variables in their design (Huijbers et al., 2012; Kuyken et al., 2010; & Williams et al., 2014). For example, within the Williams et al. (2014) trial a recent study conducted

by Crane et al., (2014) identified a significant association between mean daily duration of formal home meditation practice and outcome, and participants who engaged in formal home practice for three or more days a week during the treatment phase were half as likely to relapse into depression as those who reported fewer days of formal home practice. This gives important information for trainers and teachers about the level of priority to place on motivating participants to engage in home practice. It is likely that qualitative and quantitative studies of mechanisms of action will increase over the next years and that these will feed into the knowledge base about teaching mindfulness.

A second area within the current research base which could give useful information about teacher factors is trials which report differential outcomes of participants by site or teacher. For example, Williams et al. (2014) report that participants in the Oxford arm of the study had better outcomes than those in North Wales. However, the factors that led to this result are unclear. It is interesting to note that in the first trial of MBCT (Teasdale et al., 2000), the participants in Bangor also did not respond as well to MBCT as compared with those in Cambridge, UK and Toronto. The authors in the Williams et al. trial hypothesise that unmeasured sociocultural differences may be a factor here, and state that there was no difference in competence of the teachers at the different sites as measured by the MBI:TAC. It is important therefore in considering these issues to remember that there are multiple factors that have the potential to influence participant outcome. Although the influence of the teacher has been emphasised as a particularly key factor in this thesis (and in the wider practitioner literature), within the class the influence of the group, of adherence to home practice, and of the educational workbooks that participants receive are all likely to be influential. There are also

wider issues - such as the sociocultural context – which are at play. It is important that the range of factors that influence outcome are considered and investigated in future research.

Implications for mindfulness-based teaching and training practice

Summary conclusions, implications and recommendations

- In this young field continued work is needed to create a robust yet responsive professional context for MBI teaching and training practice.
- Dissemination of MBIs needs to include rigorous attention to the influence of the teacher and the programme on participant outcome. This needs active participation in research by the MBI teaching and training community.
- Systematic analysis of the existing evidence base is needed to draw out indicators of teacher and other factors which are likely to influence participant outcome.
- Direct investigation of the range of factors that have the potential to influence participant outcome is needed.
- Training processes are enhanced when there is clarity about the competencies that are being targeted.
- Initiatives to support the integrity of developments in the MBI field will be more effective when they are held at an international level, and when they encompass the range of mindfulness-based approaches.
- Leaders in the MBI field should collectively communicate clarity about the essential ingredients of an MBI.
- Collaborations across the international context for developments will enable development of understanding about what aspects of language and approach need to be adapted to ensure fit to local context, and which aspects can be 'held' internationally.
- Maximising the integrity of the intervention when it is put into practice is likely to maximise the impact it has.
- Recordings of exemplars of teaching practice could usefully be integrated into training, using the MBI:TAC and CA methods to support trainer/trainee dialogue and exploration.

Conclusions

The work on this thesis has taken place at a time of rapid expansion of interest in MBIs, which created a vacuum in which there has been much need for systematic attention on the issues raised by implementation. Continued work is needed to enable clear and supportive professional practice boundaries, standards and structures to be developed. The outcome evidence base for MBIs holds great promise. However, if this promise is to become a practical accessible reality on the ground for everyday people, considerable attention needs to be given to the process of transition from research into practice.

Integrity is key to ensuring that the MBI class that a participant walks into is of the standard that they deserve. Integrity needs to be embedded at every level – at the level of the individual practitioner, at the institutional level where the approach is being offered, and at the level of ensuring that the teaching is true to the evidence. Navigating through the terrain of bringing the possibility and potential of mindfulness into society requires deep integrity on multiple levels. This needs to be interwoven with pragmatism to ensure that ideals do not drive out positive developments.

Integrity:

the quality of being honest, whole, undivided or complete

Pragmatic:

dealing with things sensibly and realistically in a way that is based on practical rather than theoretical considerations

(Collins dictionary)

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