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The Mindfulness-Based Interventions

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Abstract

The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC) is a tool for supporting good practice in mindfulness-based teaching, training supervision and research contexts. It has been taken up in practice in teacher training organizations worldwide. The MBI:TAC sits within the wider consideration within research contexts of building methodological rigor by developing robust systems for ensuring intervention integrity. Research on the tool is at an early stage and needs development. The process of implementation needs careful attention to ensure reliability and good practice. Future research is needed on the tool's reliability, validity and sensitivity to change, and on the relationships between mindfulness-based teaching, participant outcomes and key contextual factors, including the influence of participant population, culture and context.

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Highlights

1. The MBI:TAC is a useful tool for assessing the integrity of MBP delivery
2. Research has established the tool's reliability and some aspects of validity
3. Implementation needs careful attention to ensure reliability and good practice
4. Sensitivity is needed to ensure it is used to support teacher growth and learning
5. The MBI:TAC needs to evolve in line with findings from research and development

Abstract

The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC) is a tool for supporting good practice in mindfulness-based teaching, training supervision and research contexts. It has been taken up in practice in teacher training organizations worldwide. The MBI:TAC sits within the wider consideration within research contexts of building methodological rigor by developing robust systems for ensuring intervention integrity. Research on the tool is at an early stage and needs development. The process of implementation needs careful attention to ensure reliability and good practice. Future research is needed on the tool's reliability, validity and sensitivity to change, and on the relationships between mindfulness-based teaching, participant outcomes and key contextual factors, including the influence of participant population, culture and context.

Title page

The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC):
reflections on implementation and development

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Introduction

The teacher is key in Mindfulness-Based Programs (MBPs) in creating the conditions for learning and transformation [1–3]. The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC) was developed to articulate and assess the main elements of MBP integrity [4,5]

This paper takes stock of the MBI:TAC development to date, asking and answering a series of questions: Why do we need a tool to assess MBP teaching? What does the research on it teach us? What are the implementation and research challenges, and next steps? A linked paper in this series considers more broadly how the field can develop greater methodological rigor in relation to fidelity assessment in research (Crane, 2018).

We have previously reported developing the MBI:TAC through a series of iterative stages, including establishing its reliability and validity [5], making it freely available online [4], and supporting its widespread implementation. The MBI-TAC was the first tool developed for assessing Mindfulness-Based Stress Reduction (MBSR)/Mindfulness-Based Cognitive Therapy (MBCT) fidelity, which addresses both program adherence/differentiation, and teaching competence. It describes six domains of MBP teaching and five competence levels (see Figure 1). Either through participation in live teaching sessions, or review of audio-visual recordings, the assessor rates competence level within each domain, enabling a profile of teaching competence and both quantitative and qualitative feedback. The domains were developed through an iterative process to capture the main aspects of the teaching process. Each has 3-5 key features describing its elements. For example within Domain 2 Relational Skills, there are five key features with descriptors pointing to how these qualities are observable in mindfulness-based teaching: authenticity and potency, connection and acceptance, compassion and warmth, curiosity and respect, and mutuality. The competence levels describe the levels of skill within each domain. These are hypothesized to be developmental: that is to say learning, practice and feedback will develop skills, knowledge and attitudinal qualities over time.

Add figure 1 here

The MBI:TAC is being widely used internationally. In the context of rapid expansion of teaching, training, implementation and research, the tool meets concerns about potential

dilution of integrity. These relate both to practice contexts (the risk of dilution of fidelity as MBPs are rolled out into mainstream contexts), and research contexts (the importance of trials being methodologically sound via evidence of fidelity) [6]. The MBI:TAC is being used in training programs as a system for assessing students teaching skill, and as a formative reflective tool; in supervision as a framework to explore skill development; and in research trials to select trial teachers, assess fidelity to enable reporting of this in trial publications, and to evaluate process variables such as teaching competence on participant outcome.

Why do we need a tool to assess MBP teaching?

1. *A method for assessing MBP teaching enables us to quality assure teaching for practice and research contexts.*
2. *It enables research and innovation.* Research into mindfulness and mindfulness-based programs has grown exponentially in the last decade [7,8]. Much of this requires a measure of the fidelity of the MBP teaching. Research can also ask primary questions about teaching quality, such as: is it related to program outcomes and are different teacher training pathways more or less effective?
3. *Developing a shared language to describe the MBP teaching process:* It enables transparent, clear communication about the teaching to support reflective process, and to understand criteria on which assessments were based.
4. *A benchmark for competence:* Within University accredited teacher training the MBI:TAC enables benchmarking of graduation levels across programs. This builds credibility which in turn facilitates the process of implementation in schools, health service etc.
5. *Support ongoing evolutions in culture within the mindfulness-based field:* The MBI:TAC is part of a culture shift within the field. It normalized the language of competence, integrity and fidelity, and the practice of recording teaching to enable external scrutiny.

The research so far: the knowns, unknowns, known unknowns and unknown unknowns

A tool that purports to describe such a subtle and nuanced process as mindfulness-based teaching could be seen to be reductionist and mechanistic. There are limits to any tool, but a key intention in the development of the MBI:TAC was to find descriptors that pointed to what MBP teaching looked, sounded and felt like – to capture both the science and art of MBP teaching. The development included careful systematic research establishing its

reliability across raters and time, aspects of validity (face, discriminant) and sensitivity to change [5]. The psychometric properties of the MBI:TAC were initially researched in the context of Master's program delivery in three UK universities. Good internal consistency (Cronbach alpha mean .88, range across six domains .84-92), inter-rater reliability (intra-class correlation coefficient; r = .81, p < .01), and construct and concurrent validity against stage of training were observed. However, this research was preliminary and limited to relatively small numbers of MBP teachers and raters in just three university contexts [5]. The tool is being increasingly used routinely in research in which teaching fidelity needs to be established [e.g. 9–12]. However, research into basic questions of the relationship between teaching quality and outcomes is at an early stage. The only study to date on this issue embedded in a randomised trial of MBCT for depression, suggested no relationship between teaching quality (as assessed by the MBI:TAC) and outcome [10]. There is much more we don't, than do know about how teaching quality relates to participants' learning and outcomes. Research is underway – 'Predictors of Outcomes in MBSR Participants from Teacher Factors' led by Judson Brewer and Rick Hecht. Phase 1 of this project involved training a cohort of MBI:TAC assessors and evaluating reliability. Phase 2 involves linking assessments of teaching competence conducted both by the trained raters and by MBSR course participants, with outcomes of MBSR course participants.

Implementation challenges and next steps

1. *Does the MBI:TAC capture the art of teaching or does it need to continue to evolve?* The MBI-TAC was developed so as not to interfere with the teaching process, offering descriptors which emphasise process, and do not preference certain teaching styles over others. As the context and the use of this tool evolves, there is inevitably a risk of reification and uncritical acceptance around what are regarded as established norms. This would have an inadvertent and unfortunate effect of undermining the dynamic 'in-the-momentness' aspect of MBP teaching and of the unfolding nature of the science. This is an issue for the field to be awake to.

2. *Governance for assessment:* within the context of MBP teacher training programs in Higher Education, there are governance systems that surround assessment processes which offers protection to both student and assessor. The interest in embedding the MBI:TAC into training programmes is driven by a wish for rigor, and for verification of students'

graduation. However, careful thought is needed when using the tool in contexts where transparent governance systems are not available. It may be more appropriate to use the tool informally to support understanding of the domains and levels of competence, but stop short of using it as a formal assessment tool.

3. *Assessor training and ongoing support:* Experience tells us that it takes time and practice to learn to use the tool reliably. Assessors need careful training so they assess and frame feedback in ways that are supportive to learning, are anchored to the tool's key features and to specific time points within the teaching, and that are not biased towards particular styles of teaching favoured or not favoured by the assessor. Even if someone is a highly experienced teacher/trainer, their assessments will not align with others if they are not familiar with the tool's structure and process. Given the delicacy and personal impact of assessments, it is critically important that those using the tool for assessment, are highly experienced teachers/trainers, have training in the use of the tool, and have access to ongoing informed support and feedback on their assessments and approach to feedback. This work requires an attuned awareness, compassion and responsiveness as we interface with teachers' vulnerabilities and learning edges. We know and have seen how easy it is for assessors to switch into an evaluative and judgmental mode, and forget the very qualities that are at the heart of MBP teaching in the assessment process. It takes concerted effort to use the MBI-TAC reliably and mindfully.

4. *When and how to introduce the MBI:TAC in training contexts:* The MBI:TAC can easily induce a conceptual ideal for MBP teachers to strive towards, which runs counter to the important emphasis on teaching from a direct connection to immediacy. There are skilful ways to introduce the MBI:TAC to early stage trainees which minimise assessment anxiety, by presenting aspects of it. Sharing the domains and key features without the competence levels, enables trainees to get a meta-perspective of the territory of skills that they are in process with developing. The competence levels can be introduced later with an emphasis on the developmental process inherent within them, and an understanding that competence within one teacher will vary, so any assessment is simply a marker of a particular moment in time.

5. *Resources to support implementation:* Many MBP training organisations are now using the MBI:TAC in practice, and have expressed the need for practical support to enable them to implement the tool with integrity. For example it would be helpful for the international

community to have access to: resources that offer exemplars of good practice in giving feedback; collected ideas on creative uses of the MBI:TAC to support trainee and personal development; and a centralised library of benchmarked assessments through which assessors can ascertain how reliably they are using the tool. These resources need funding and a team to enable thoughtful development.

6. *Using it with other program models and contexts.* Currently the MBI:TAC is intended for use within the context of MBSR and MBCT (with the proviso that assessors themselves need to be familiar with the particular programme they are assessing). Given that it is a process orientated tool, it is possible to adapt it for use with other MBPs and other delivery contexts. An addendum has been developed to enable its implementation in the context of delivering MBPs in schools. An addendum for using it the context of delivering MBPs in workplaces is in progress.

Research challenges and next steps

1. *Innovation and research:* the MBI:TAC has been rolled out into practice at an early stage in its development. As research, good practice and understanding develops it needs to continue to evolve. Ongoing research on its psychometric properties is needed to inform these developments, and to ensure the tool remains reliable, valid and sensitive to change. A key validity test is whether competence and adherence as captured by the MBI:TAC links to participant outcome.

   This research needs conducting in a range of contexts and by those who did not not develop the tool. The embodiment domain is particularly ripe for investigation. It had the lowest level of inter-rater reliability in the first evaluation of the tool's psychometric properties, pointing perhaps to the challenge of developing observable descriptors of qualities such as authenticity, connectedness, and expression of the attidudinal qualities of mindfulness.

2. *Is the MBI:TAC suitable for multiple contexts?:* the tool was created within the particular context of University Master's programs. In these training programs competency levels tend to cluster lower on the scale (a ceiling effect). In contrast, when it has been used in efficacy research trials mindfulness teachers are, by design selected to be above the competency threshold (a floor effect) [e.g.11]). We do not yet know how the MBI-TAC will perform psychometrically in MBP teaching across the full full spectrum of competency.

Furthermore it remains an empirical question whether the MBI-TAC's promising psychometric properties are replicated when MBIs are taught in other contexts.

3. *Analysis of the critical ingredients of MBP teaching:* The MBI:TAC can enable examination of process variables such as competence in specific areas, and the differential influence of certain domains. For example, there is wide acceptance in the field that communication of mindfulness through embodied presence is key to enabling participants to embed mindfulness into their own way of being. This understanding influences how MBP teachers are trained, and the requirement to engage in intensive periods of mindfulness practice in residential retreat contexts. There are many research questions embedded in these issues which link particularly to the MBI:TAC domain of embodiment. Do certain forms of training and experience cultivate embodiment? Do scores on embodiment differentially relate to participant outcomes in comparison with other domains?
Embodiment is being examined from other angles by researchers in the field through analysis of interoception [e.g. 13]. Future research could combine observational assessment of how the teacher's capacity to bring mindful awareness to their own process translates into embodied teaching practice, with other ways of measuring levels of interoception.

4. *Cultural considerations*: the MBI:TAC was developed in the UK context. Our experience of training in other cultural contexts points towards the importance of sensitivity to culturally nuanced expressions of teaching practice. For example, embodiment is expressed differently through different cultures, ages, genders and implementation contexts. More development on the tool and linked research is needed to investigate how the tool can support developments in diverse contexts, and how it can be developed to embed multicultural sensitivity into it.

5. *Triangulation of first, second and third person analysis of teacher factors*: Combining the teacher's own reflective analysis of their inner experience and process during an episode of teaching (first person analysis), with observational assessments of the teaching using the MBI:TAC, and assessments of their teacher by MBP participants (second person analysis), with linkage to objective measures such as participant outcome (third person analysis), would have the potential to open new understanding on teaching factors.

6. *Examining implementation questions:* The process of MBP implementation is under researched [8]. The MBI:TAC can enable investigation of issues such as the effectiveness

of different approaches to teacher training; and whether teaching skills sustain in the transition into real world contexts.

7. *Linking to the wider literature on intervention integrity:* Finally, there is a substantive literature on competence and outcome in the psychotherapy field [e.g.13], and it would be instructive to draw from this to inform understanding of methodology, findings and research directions in the MBP context.

Competing Interests

- Rebecca Crane receives royalties for MBCT Distinctive Features, Routledge 2017. She is a trustee of the Mindfulness Network, a charity offering CPD services to mindfulness-based teachers. She directs the Centre for Mindfulness Research and Practice at Bangor University which delivers professional training for mindfulness-based teachers.

- Willem Kuyken is the Director of the Oxford Mindfulness Centre, a research, training and education centre that is a collaboration between the University of Oxford and the not-for-profit charity the Oxford Mindfulness Foundation. He donates all speaking or consultancy fees in full to the Oxford Mindfulness Foundation.

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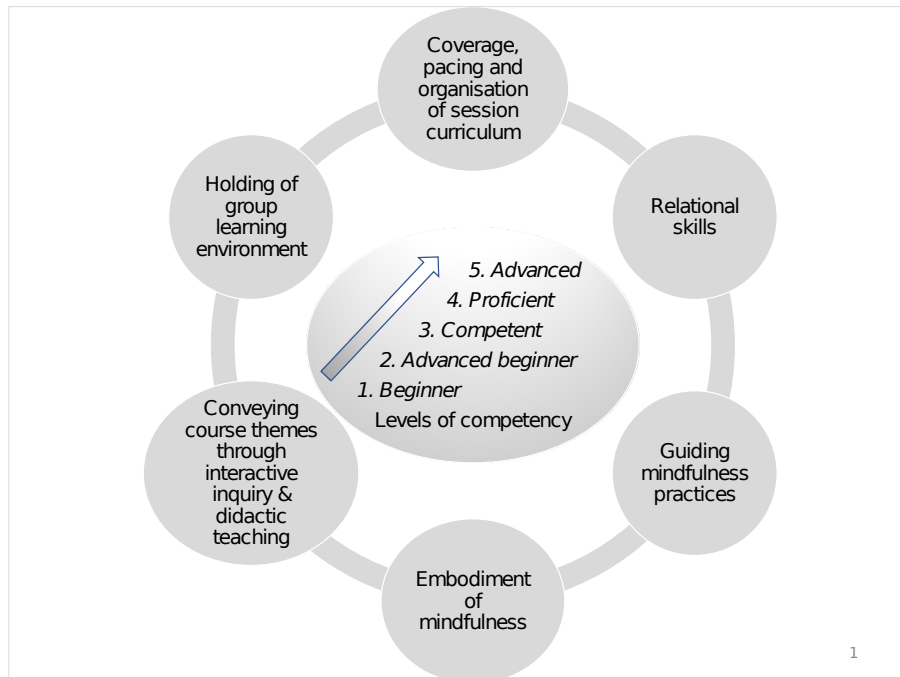
[3] The seminal research on the MBI:TAC's psychometric properties which provides a baseline for future studies.

[4] An analysis of the status of reporting of interventions integrity in research within the mindfulness-based program field, and recommendations of how reseachers can improve their approach to ensuring and reporting intervention integrity.

[5] A high level analysis of the status of the current MBSR and MBCT evidence, identifying that there is a plethora of studies at the early stages of the evidence building cycle, and fewer studies which are situated at later stages. It identifies a particular gap in studies on implementation and teacher effects.

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Figure 1: Domains and competence levels of the MBI-TAC

5. Advanced
4. Proficient
3. Competent
2. Advanced beginner
1. Beginner
Levels of competency

Coverage, pacing and organisation of session curriculum

Relational skills

Holding of group learning environment

Conveying course themes through interactive inquiry & didactic teaching

Guiding mindfulness practices

Embodiment of mindfulness

1

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