Article

Development and Validation of the Mindfulness-Based Interventions – Teaching Assessment Criteria (MBI:TAC)

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Abstract

Background. The assessment of intervention integrity is essential in psychotherapeutic intervention outcome research and psychotherapist training. There has been little attention given to it in mindfulness-based interventions research, training programs, and practice. *Aims.* To address this, the Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC) was developed. This article describes the MBI:TAC and its development and presents initial data on reliability and validity. *Method.* Sixteen assessors from three centers evaluated teaching integrity of 43 teachers using the MBI:TAC. *Results.* Internal consistency (α = .94) and interrater reliability (overall intraclass correlation coefficient = .81; range = .60-.81) were high. Face and content validity were established through the MBI:TAC development process. Data on construct validity were acceptable. *Conclusions.* Initial data indicate that the MBI:TAC is a reliable and valid tool. It can be used in Mindfulness-Based Stress Reduction/Mindfulness-Based Cognitive Therapy outcome evaluation research, training and pragmatic practice settings, and in research to assess the impact of teaching integrity on participant outcome.

Keywords

mindfulness-based interventions, competence, adherence, intervention integrity, assessment, reliability, validity

Introduction

Ensuring intervention integrity in the context of the rapidly expanding interest in mindfulness-based interventions (MBIs) is challenging. The two most popular forms of MBIs are Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990) and Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2012). These interventions are closely related and evidence-based, delivered in weekly sessions over 8 weeks, with distinctive curricula and teaching processes.

An important part of the establishing the efficacy of MBIs is a check on intervention integrity. Reliable and valid assessment of intervention integrity gives information about the level of adherence to the original program model, the degree to which the intervention is delivered as intended, and the degree of therapist competence in delivering the intervention. Understanding intervention integrity is an essential precondition for the analysis of the effectiveness of psychotherapeutic interventions (Weck, Weigel, Richtberg, & Stangier, 2011), for assessing the therapeutic skills of trainees within training programs and evaluating the effectiveness of training processes (McManus, Westbrook, Vazquez-Montes, Fennell, & Kennerley, 2010), for ensuring successful practical implementation of empirically supported approaches (Crane & Kuyken, 2012; Shafran et al., 2009), and for establishing the role of treatment integrity in real-world treatment settings (Barber, Sharpless, Klostermann, & McCarthy, 2007).

Broadly, there are three dimensions to the concept of intervention integrity: adherence, differentiation, and competence (Weck et al., 2011). Adherence and differentiation may be considered the quantitative aspects of integrity: how frequently the teacher/therapist delivers prescribed intervention procedures and omits proscribed elements, and to what degree these procedures are employed to ensure intervention "purity." Competence is the skill level of the therapist/teacher in delivering the intervention. While adherence, differentiation, and competence are

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closely related, they do not presuppose each other. In particular, delivering an intervention with adherence and differentiation does not necessarily mean the intervention has been delivered competently.

Although concern has been expressed from within the MBI field that the expansion in interest in mindfulness may lead to dilution in integrity (Grossman, 2010; Kabat-Zinn, 2011), there has been little systematic attention in this area, and models of best practice are at an early stage and underreported. Related work includes descriptions of the pedagogy of mindfulness-based teaching (Kabat-Zinn, 1990; McCown, Reibel, & Micozzi, 2010; Segal, Teasdale, Williams, & Gemar, 2002), publication of standards of good practice for mindfulness-based teachers (Santorelli, Goddard, Kabat-Zinn, Kesper-Grossman, & Reibel, 2011; UK Network for Mindfulness-Based Teacher Trainers, 2011), publication of principles underpinning training processes (Crane, Kuyken, Hastings, Rothwell, & Williams, 2010), a conceptual analysis of the distinctive issues that need to be taken into account when addressing competence in the context of mindfulness-based teaching (Crane, Kuyken, et al., 2012), and the MBCT adherence scale (Segal et al., 2002). However, we know of no existing tool for assessing intervention integrity in MBCT and MBSR.

Overview of Current Research

The first research aim was to develop a tool with content and face validity, which can be used to effectively assess and quantify the process skills involved in the three aspects of intervention integrity (adherence, differentiation, and competence) in MBSR and MBCT. The second research aim was to evaluate this tool in terms of its reliability (we assessed internal consistency and interrater reliability) and its validity (we assessed construct and concurrent validity).

Method

Developing a Tool to Assess Mindfulness-Based Intervention Integrity

Given the imperative for clear methodologies for assessing mindfulness-based intervention integrity in educational, research, and pragmatic intervention delivery settings, three U.K. universities, who each offer postgraduate training in MBSR and/or MBCT and who all included assessment of integrity in their training programs, worked together to develop a system for assessing mindfulness-based teaching integrity—the Bangor, Exeter and Oxford Mindfulness-Based Interventions: Teaching Assessment Criteria Scale (MBI:TAC; Crane, Soulsby, Kuyken, Williams, & Eames, 2012). The MBI:TAC has been developed to respond to the range of contexts in which the integrity of the mindfulness-based teaching is a central question. This includes training programs and supervision during which the criteria are used as a developmental tool to offer clear feedback to trainees and to identify foci for development, and in research programs and training assessments (e.g., in university-based training programs, selection and evaluation of teachers in research trials) in which reliable and valid assessments of teaching integrity are required.

Background to the Development Process. Thus far research has largely evaluated the outcomes of participants in MBI programs. There has been much less research on how these outcomes might be achieved—specifically, the mindfulness-based teaching process. MBI teaching aims to develop participants' access to "being mode of mind" (Williams, 2008)—their intrinsic but often obscured capacity to reside in a "nondoing," nonstriving, present moment, accepting and compassionate mode of being. This is hypothesized to rely on the MBI teacher's embodiment of being mode, which in itself relies on their moment-to-moment mindful engagement with internal and external experience during the teaching. Although the internal work of engaging with experience in a particular way cannot be witnessed, how this manifests through the behavior of the teacher can. The MBI:TAC, therefore, operationalizes intervention integrity through a focus on the assessors'[1] observations *and* direct experience of the teaching process. Observation and experience is focused on what assessors see (behavior, nonverbal communication), what they feel (visceral), what they hear (language), and how these "data" combine to define the overall experience of the teaching.

MBI:TAC Development. The MBI:TAC development involved a close analysis of the MBSR/MBCT teaching process by a group of teacher trainers from three university training centers and a series of developmental stages in which the face and content validity of the tool were tested by practical application in training and research contexts.

Development Phase 1. The structure of the MBI:TAC draws on the revised Cognitive Therapy Scale (Blackburn et al., 2001), which divides competence into domains that are then described by a number of key features. The MBI:TAC competence levels are based on the Dreyfus and Dreyfus (1986) model of skill acquisition, which offers a developmental approach to competence development, and draws on the reinterpretation of this work by Sharpless and Barber (2009).

Several factors led to reduced interrater reliability during pilot testing of the first iteration of the MBI:TAC. First, assessors were employing a range of processes to arrive at assessments. Second, the competence level descriptors did not enable clear discriminations. Third, there was overlap between the 15 domains.

A second working version of the MBI:TAC was developed that aimed to address these issues. Guidance was developed on how to engage with the assessment process to ensure consistency of approach. Explicit examples of the observable aspects of the teaching were inserted at each competence level in each domain. The number of domains was reduced to 10 by bringing together areas of clear overlap.

Development Phase 2. Two areas requiring adjustment were identified following further pilot testing. First, to increase specificity, refinements to the descriptors of domains and competence levels were made. Second, while recognizing that the teaching process is complex and multifaceted, there was consensus that the 10 domains were unwieldy and overlapping and so they were reduced to six. The current working version of the MBI:TAC was developed that addressed these issues.

MBI:TAC Description (Crane, Soulsby, et al., 2012). The scale can be freely accessed online. It has six competence levels and six domains. Each domain has a page outlining the interaction between the key features of the domain and the competence levels and is followed by guidance notes for assessors relating to each key feature.

The assessors rate each of the six domains using a 6-point continuous adjectival scale of competence levels. A total score is calculated by averaging the six domain scores. Guidance is given on how to engage with the assessment process to ensure consistency of approach. Assessments are made by viewing/participating in the teaching, making a global competence assessment anchored to global competence descriptors, making individual domain assessments anchored to key feature descriptors and competence level descriptors, reviewing global and detailed scores alongside each other, and checking out discrepancies by reviewing video recordings of teaching sessions. Final scores are recorded on a summary score sheet. Assessors are encouraged to deliberately engage both their "being mode of mind" (their intuitive experience of the teaching) and their "doing mode of mind" (their capacity to categorize, judge, and discriminate) at different times in the assessment process.

The three aspects of intervention integrity (adherence, differentiation, and competence) are addressed by the MBI:TAC. Domain 1 assesses the presence or absence of curriculum elements that fit or do not fit with the MBSR/MBCT model (adherence and differentiation). Curriculum content is not listed as this has been done elsewhere (for MBSR in Blacker, Meleo-Meyer, Kabat-Zinn, & Santorelli, 2009; and for MBCT in Crane, 2009; Segal et al., 2012). The third aspect of intervention integrity—competence—is integral to the entire teaching process and is therefore included in each domain.

In line with recommendations made by Weck et al. (2011) on the implementation, measurement, and evaluation of intervention integrity, competence assessors using the MBI:TAC need to be experienced in delivering MBIs (because understanding of the nature of competence in a particular intervention is best developed through training and experience in delivering the approach), the assessors require training in the use of the scale to ensure that their assessments are reliable, and as many MBSR or MBCT teaching sessions as possible should be sampled to ensure assessment is representative. The literature on treatment integrity generally indicates that adherence and differentiation assessment do not require experience in the delivery of the approach because it requires a relatively simple checking of the presence and absence of intervention components. However, the MBI:TAC integrates adherence, differentiation, and competence into one assessment tool so assessors who are experienced MBCT/MBSR teachers are required for the entire process.

Researching the Reliability and Validity of the MBI:TAC

Participants. There were two groups of participants in the research:

1. *Integrity Assessors*: Sixteen trainers (12 female, 4 male) from three university mindfulness teaching and training centers consented to their assessments of mindfulness-based teaching competence and adherence being available for this study. They had a mean age of 55.38 years (range = 33-67), a mean of 17.25 years of continuous mindfulness practice (range = 6-40), and on average 8.94 years since teaching their first MBCT/MBSR class (range = 2-15). All had had their mindfulness-based teaching integrity assessed by other senior teachers.
2. *MBCT and MBSR teacher trainees and teachers*: Forty-three teachers (34 female, 9 male) in training on postgraduate mindfulness-based training programs or teachers on an MBCT research trial (Kuyken et al., 2010) participated in the study. Only 33 teachers provided further demographic data. For these 33 teachers, the mean age was 50.27 years (range = 33-62 years), they had engaged in an average of 9.5 years of continuous meditation practice (range = 1-26 years), and had taught an average of 10.8 MBSR/MBCT classes (range = 0-50). The total number assessed for teaching integrity across the three participating centers in this academic year using the MBI:TAC was 67. Of these, 34 were single assessed so their data could not be used to evaluate interrater reliability, and 19 did not give consent for their data to be used for research purposes. The data from 43 master's program students/trial teachers were included in the research. Of these, 20 were in Year 1 of teacher training, and 23 were either in Year 2 or beyond.

Table 1. MBI:TAC Domain and Total Competence Means, Standard Deviations, and Corrected Item–Total Correlations.

Domain	*M* (*SD*)	Item total *r*
Coverage, pacing, and organization of session	4.15 (0.78)	.88
Relational skills	4.32 (0.84)	.88
Embodiment of mindfulness	4.21 (0.82)	85
Guiding mindfulness practices	4.10 (0.82)	.84
Conveying course themes through interactive inquiry and didactic teaching	3.89 (0.78)	.91
Holding the group learning environment	4.19 (0.72)	.92
All domains	4.12 (0.73)	.88

Measure

The Bangor, Exeter and Oxford Mindfulness-Based Interventions: Teaching Assessment Criteria Scale (Crane, Soulsby, et al., 2012). Trainers at three university mindfulness centers were trained in the use of the MBI:TAC. Trainers used it to assess teaching integrity as part of routine practice within mindfulness-based master's programs and to comply with MBCT research trial governance.

Procedure. MBCT/MBSR teachers from each research site submitted recordings of teaching sessions or participated in live observations as part of their postgraduate training program or research trial teaching. As part of routine practice in master's program assessment, a proportion was independently assessed by two assessors and could be examined for interrater reliability. The data included in the study were gathered over one academic year (2010-2011) at the end of Year 1 and Year 2+ training, was randomly chosen to be independently assessed by two assessors, and consent from both assessor and MBCT/MBSR teacher was given for the use of the data for research purposes. Assessors were not blind to whether the teaching they were assessing was from Year 1 or Year 2+. Demographic information on participants was collected. Prior to commencement of the research, the study was reviewed and approved by Bangor University's School of Psychology research ethics and governance committee.

Approach to Data Analysis. Two dimensions of reliability were investigated. First, Cronbach's alpha coefficient was computed to determine the internal consistency of the MBI:TAC total assessment score. This was derived by using the first completed assessment for each teacher. Second, interrater agreement was calculated both for individual competence domains and for the overall competence score averaged across the six domains. Intraclass correlations between assessors were obtained and percentage agreement was calculated on absolute agreement between assessors and (given that the tool is based on a 6-point continuous adjectival scale) also on close agreement (i.e., assessors selected the same or adjacent points on the judged level of competence). The concurrent validity of the tool was tested by comparing mean competence scores across groups in different years of teacher training (i.e., Year 1 and Year 2+).

Results

Analysis of the overall pattern of assessment results revealed that (in line with expected competence level for stage of training) the group of participants were relatively homogenous (i.e., the spread of competence scores was narrow), with the majority (39 out of 43) of participants clustered between Competence Levels 3 (advanced beginner) and 5 (proficient; see Table 1).

Reliability

Cronbach's α was .94 when all 6 domains were included in creating a total competence score, indicating high internal consistency. Corrected item (domain)–total correlations were also high for each of the domains (mean .88, range = .84-.92; see Table 1).

In terms of interrater reliability, the intraclass correlation coefficient (ICC) for the overall assessment score indicated a good level of agreement ($r = .81$, $p < .01$), which was also strong for each individual domain (ICCs ranging from .60 to .81). Moderate agreement was obtained on the percentage exact agreement scores ranging from 53% to 65%. When adjacent scores were included as agreement, interrater agreement was considerably higher, ranging from 93% to 100%, suggesting good interrater reliability on all domains of the tool and a high standard of agreement overall (see Table 2).

Validity

Establishing face and content validity was integral to the process of developing the MBI:TAC. As described above, this process involved explicitly articulating the range of skills involved in teaching MBSR and MBCT and creating a workable tool for use in everyday practice. Highly experienced MBI teacher trainers from three training centers built up consensus about domains and competence levels over an 18-month period, to evidence face and content validity. Although there were high levels of consensus in some competence domains early in the development process (e.g.,

Table 2. Interrater Agreement by MBI:TAC Domain and Overall.

Domain	*n*	ICC	% Agreement (including exact agreement and agreement within one domain)	% Agreement (exact)
Coverage, pacing, and organization of session	31[a]	.72	96.8	61.3
Relational skills	43	.72	97.7	60.5
Embodiment of mindfulness	43	.60	93.0	53.5
Guiding mindfulness practices	43	.80	100	65.1
Conveying course themes through interactive inquiry and didactic teaching	43	.67	97.7	58.1
Holding the group learning environment	31[a]	.66	96.8	61.3
Total MBI:TAC competence score (all domains)		.81	97	60

Note. MBI:TAC = Mindfulness-Based Interventions: Teaching Assessment Criteria; ICC = intraclass correlation coefficient.
a. *N* differs in Domains 1 and 6 because Year 1 trainees are not assessed in these areas at one of the centers.

Table 3. Mean MBI:TAC Domain Scores for Two Stages of Teacher Training/Development and Between Group Comparisons.

Domain	Year 1 mean domain score (*SD*)	Year 2 and beyond mean domain score (*SD*)	*t*	*d*	% Achieving threshold competency level (3. Advanced Beginner), Year 1 (*N* = 20)	% Achieving threshold competency level (4. Competent), Year 2 (*N* = 23)
Coverage, pacing, and organization of session	3.25 (0.53)	4.47 (0.58)	5.24***	2.18	100 (*n* = 8)[a]	91
Relational skills	3.90 (0.77)	4.69 (0.74)	3.42**	1.05	95	96
Embodiment of mindfulness	3.91 (0.73)	4.46 (0.83)	2.32*	0.71	100	78
Guiding mindfulness practices	3.78 (0.79)	4.37 (0.76)	2.51*	0.76	95	83
Conveying course themes through interactive inquiry and didactic teaching	3.58 (0.81)	4.16 (0.64)	2.63*	0.79	95	78
Holding the group learning environment	3.56 (0.56)	4.40 (0.64)	3.30**	1.40	100 (*n* = 8)[a]	87
Total	3.77 (0.68)	4.43 (0.64)	3.29**	1.00	95	70

Note. MBI:TAC = Mindfulness-Based Interventions: Teaching Assessment Criteria.
a. *N* is different in Domains 1 and 6 because students in Year 1 of training at one of the centers are not assessed in these areas.
*$p < .05$. **$p < .01$. ***$p < .001$.

guiding mindfulness practices), there was greater divergence in other domains (e.g., leading inquiry with participants following meditation practices). Discussion over several months involved teasing out areas of convergence/divergence and creating workable descriptors that were integrated within agreed on domains of competence.

The MBI:TAC was conceived as a set of related domains of teaching integrity that nonetheless assessed relatively independent dimensions of the process of teaching MBIs. Therefore, we hypothesized that each domain should correlate with other domains within the MBI:TAC but that correlations should not be so high as to suggest redundancy. Pearson's correlation coefficients between the MBI:TAC domains ranged from .60 to .84, with all domains significantly correlated with each other at the $p < .01$ level. This suggests a set of related domains that nonetheless each capture a degree of unique variance. The only correlation that was >.8 was conveying course themes and holding of the group learning environment (.84), both of which assess more general dimensions of teaching competency (see MBI:TAC manual; Crane, Soulsby, et al., 2012).

We hypothesized that the MBI:TAC would be able to distinguish early stage teachers (Year 1) from more advanced teachers (Year 2+) by evidencing higher scores of competence in the latter group. We expect Year 1 teachers to demonstrate teaching integrity at "advanced beginner" and Year 2 and beyond at competent/proficient/expert levels. Concurrent validity was thus tested by comparing two groups based on the stage of training of the teachers being rated: Year 1 ($N = 20$) of their formal training versus year 2+ ($N = 23$). Independent samples *t* tests were conducted on baseline demographics and prior mindfulness practice scores between the two groups. These tests indicated that the groups did not differ significantly on age, $t(31) = .14$, $p = .89$, or years of mindfulness practice, $t(31) = .1.53$, $p = .14$. Significant differences in competence between the groups were observed across all domains with large effect sizes (see Table 3).

Finally, the Year 1 and Year 2+ groups were analyzed to assess how many had achieved the expected level of teaching integrity or above at the end of their first year of training (Level 3: advanced beginner) and at Year 2+ (Level 4: competent; see Table 3). This suggests the MBI:TAC is reliably able to discriminate those students at the key progressions points in training, at rates >78% in any one domain and typically closer to 80% to 100% accuracy.

Discussion

Initial data indicate that the MBI:TAC has good interrater reliability, internal consistency, construct validity, and concurrent validity. This is an encouraging finding given that the constructs of competence and of mindfulness-based teaching are highly complex and multifaceted and that observational measures can be difficult to standardize. A strength of this study was that it was conducted across three centers, thus bringing U.K. coherence on integrity benchmarks in mindfulness-based teaching closer together. The data were derived from, and are therefore directly relevant to, routine practice in training and research settings.

Evidence of validity was further supported by the fact that the competence levels of trainee cohorts were higher for those in the second year or later of their training than those in their first year of training. The majority achieved the expected level at each stage of training, though the proportion of students achieving the expected level in the "Year 2+" group was less, with lowest proportions in the domains of "embodiment of mindfulness" and "conveying course themes through interactive inquiry and didactic teaching." This gives useful information for training centers on which skill areas to give particular priority. The high internal consistency provides evidence that the elements within the construct are interrelated and gives an exploratory indication that an underlying (shared) construct is being assessed.

Although overall interrater reliability was good, there was variation between the reliability of individual domains from moderate to high. The domain "embodiment" had the lowest level of interrater agreement, consistent perhaps with it being the most open to interpretation. This construct is assessing the extent to which the internal "work" of mindfulness practice becomes visible through the teacher's nonverbal and verbal communication and behavior. In the development of the MBI:TAC, this was the domain that was most challenging to articulate, and assessor feedback indicated it was harder to rate from DVDs than from live observation.

As recommended by Waltz, Addis, Koerner, and Jacobson (1993), we described teaching integrity relative to the specific intervention approach of MBSR and MBCT teaching (with the differences between the two approaches being addressed in Domain 1 via reference to curricula and manuals for each approach), and instructed assessors to take context, such as the stage of the course, into account when making assessments. For example, there are clearly differences in teaching practice when guiding a body scan in Week 1 to a new group, as compared with Week 8, when participants are familiar with the process and practice. However, experienced mindfulness-based teachers will vary in their views regarding which specific teaching strategy represents the best option in the moment. There are no data in this, or related fields, to suggest which moment-to-moment intervention is associated with participant outcome (Barber et al., 2007). The MBI:TAC does, however, aim to allow for a range of teaching styles because there is no empirical evidence to favor one style over another.

Limitations and Future Research

Despite promising findings, our study has limitations. The tool is new, so comparison of these results with other studies on the scale is not possible. The small numbers in both groups of participants (teachers and assessors) reduce the generalilizability of the findings. More research is needed on the psychometric properties of the MBI:TAC including independent replication with a larger sample size of mindfulness teachers and methods to assess concurrent validity and test–retest reliability.

The analysis of interrater reliability was conducted on pairs of assessors and would have been strengthened by employing more than two assessors. The assessments were conducted within routine practice and therefore the assessors all had prior knowledge of the teachers they were assessing creating the potential for bias. Nonetheless, our data are promising initial evidence of assessors being able to reliably discriminate teachers at different stages of development and the obvious next step is using blind assessors across teachers categorized a priori from each level novice to advanced.

Although the comparison of Year 1 and Year 2+ cohorts of trainees offers preliminary evidence of concurrent validity, this might be a cohort effect, although we were able to demonstrate that the cohorts were not reliably different on age or years of mindfulness practice. Future research needs to assess how the trajectory of competence changes longitudinally during training.

The sample was unusual in the international context for MBI teacher training as all participants were engaged or had been engaged in a teacher training program lasting 2 or more years that included assessment of teaching practice. As expected therefore, the full range of competence levels in the MBI:TAC was not used by assessors in this study. A more common model in the international context for training in MBIs is for trainees to attend a series of stand-alone continuing professional development training events. In this context, there is likely to be considerable variation in levels of adherence to good practice standards and it is rare for programs to include formal assessment of teaching integrity. Given the specialized nature of our sample, it was not possible to test the generalizability of the MBI:TAC to the range of contexts in, and methodologies by which, MBI teachers are trained. How well will this scale, developed on a sample like this, will extend to the broader community is as yet undetermined. Future research is needed to assess the utility of the tool in these other contexts and the effectiveness of the range of training models used in practice.

Research is also needed on the factors associated with competence such as trainee background, experience, professional and post qualification training, and good practice adherence. Such research is in progress as part of a large MBCT trial in the Netherlands (Huijbers et al., 2012).

Although a strength of this study is that assessors were drawn from three sites, interrater evaluations were conducted using pairs of assessors at the same sites. An important next research step is to investigate interrater reliability between sites, which may also offer the potential for assessment blind to the training background of the teacher being observed.

For this initial research, a standardized approach to training of assessors in the use of the MBI:TAC was not adopted since the majority of assessors had already participated in the development stages of the tool. In future research and in practice, a standardized approach to assessor training is needed. We hypothesize that thorough training in the use of the MBI:TAC increases the extent to which assessors anchor their assessments to the specifics of the key features within each domain, and to the specifics of the descriptors of competence levels within each domain, potentially increasing interrater reliability. However, research is required to test this. Although the MBI:TAC is now freely available (Crane, Soulsby, et al., 2012), we strongly recommend that users train with the developers of the criteria prior to using them to assess teaching integrity.

There is a high level of effort and cost associated with the assessment of intervention integrity, relying as it does on the availability of experienced practitioners who are also trained in the use of the tool and on considerable availability of time (Waltz et al., 1993). A question for future investigations is how much MBSR/MBCT teaching needs to be reviewed to get reliable and valid assessments of competence (Consbruch, Clark, & Stangier, 2012).

Conclusions

Our study indicates that the MBI:TAC is indeed a reliable and valid instrument for assessing MBSR/MBCT teaching integrity. Now that a working version of an assessment tool of MBI teaching integrity has been developed, the platform is open for exploration of a range of research questions on the relationship between processes and outcomes in the MBI field. Moreover, research trials and training programs have a tool they can use to assess MBI teaching integrity.

Studies are needed to clarify the reliability and validity of the MBI:TAC. Further psychometric evaluation of the tool is already in process in trials in Europe (e.g., Huijbers et al., 2012).

The MBI:TAC bases integrity assessment on observation of the teacher. Future development and research could investigate systems for broadening the approach that might include the perceptions of MBI participants and/or teachers self-ratings.

Central questions for future investigation are the links between teaching integrity and participant outcome, experience, and satisfaction. MBI teaching integrity is a variable that is likely to have a strong influence on participant experience and outcome (Webb, DeRubeis, & Barber, 2010). Connecting assessments of teaching integrity with participant outcome data has the potential to move the field further toward empirically based criteria for teaching integrity levels. Setting a standard for acceptable levels of integrity will also contribute to bridging the gap between results achieved in research trials and in routine practice.

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Rebecca Susan Crane and Cartin Eames are joint first authors.

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Note

1. The term *assessor* rather than *rater* is generally used because this is the term most commonly employed in the contexts where the MBI:TAC are being used. The term *interrater agreement* is, however, used in the context of the research on the MBI:TAC so that the results can be placed in the context of related literature.

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