

A Critical Reflection of Mindfulness in Mental Health

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Received date: February 02,2017 ;Accepted date : February 13,2017; Published date: February 28,2018.

Citation for this Article: Denise Radcliffe, A Critical Reflection of Mindfulness in Mental Health , J Psychology and Mental Health Care .

Doi: 10.31579/2637-8892/001

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Abstract

Mindfulness derives from Buddhist practice and is fundamentally concerned with the development of present moment awareness. It is arguably one of the fastest growing areas of mental health research with the last decade witnessing a tenfold increase in the number of published scientific papers concerning the applications of mindfulness in mental health contexts. Given the demonstrable growth of interest into the clinical utility of mindfulness, this paper provides a: (i)timely and evidence-based appraisal of current trends and issues in psychopathology-related mindfulness research, and (ii) discussion of whether the empirical evidence for mindfulness-based interventions actually merits their growing popularity and utilization amongst mental health stakeholders. It is concluded that mindfulness-based interventions have the potential to play an important role in psychiatric treatment settings as well as in applied psychological settings more generally. However, due to the rapidity at which mindfulness has been taken out of its traditional Buddhist setting, and what is possibly evidence of media and/or scientific hype concerning the effectiveness of mindfulness, it is recommended that future research seeks to: (i) consolidate and replicate research findings, (ii) assess the maintenance of outcomes over longer time periods, (iii) investigate potential adverse effects, and (iv) fully control for potential performance bias in mindfulness-based intervention studies. It is further recommended that future research seeks to investigate the Buddhist position that sustainable improvements to mental and spiritual health typically require consistent daily mindfulness practice over a period of many years (i.e., they do not arise after attending eight two-hour classes with some self-practice in between).

Keywords

Mindfulness; Mindfulness-Based Interventions; Meditation; Mental Health; Buddhism; Psychopathology

Introduction

Mindfulness derives from Buddhist practice and is concerned with regulating concentration such that it remains focused on present moment sensory and psychological experiences. It is arguably one of the fastest growing areas of mental health research with the last decade witnessing a tenfold increase in the number of published scientific papers concerning the applications of mindfulness in mental health and applied psychological settings [1]. A growing appreciation of the potential benefits of mindfulness to mental health and psychological wellbeing is not only developing amongst mental health clinicians and researchers, but also amongst health professionals and service users more generally. For example, one study reported that over 70% of general practitioners in the United Kingdom now believe that patients can derive health benefits by becoming more mindful of the present moment – a view shared by more than 80% of British adults in the same study [2].

Given the significant growth of interest into the clinical utility of mindfulness, this paper provides a:(i) timely and evidence-based appraisal of current trends and issues in psychopathology-related mindfulness research, and (ii) discussion of whether the empirical evidence for mindfulness-based interventions (MBIs)actually merits their growing popularity and utilization amongst mental health stakeholders.

The Debate Surrounding the Definition and Attributes of Mindfulness

Scientific papers concerning mindfulness invariably include a statement to the effect that: *there is currently a lack of consensus in Western medicine as to exactly what defines the mindfulness construct* [3-5].

However, this alleged lack of consensus amongst mindfulness experts may overshadow the fact that there are a number of key areas of accord amongst researchers, clinicians, and Buddhist scholars regarding the attributes of mindfulness. For example, it is generally accepted in both the contemporary mental health literature and traditional Buddhist literature that mindfulness involves:(i) focusing attention on the present moment in order to regulate ruminative and maladaptive thought patterns,(ii) mind-body synchronization (i.e., engaging a full task and situational awareness as opposed to engaging in activities without being fully conscious of so doing), (iii) observing both sensory and cognitive-affective processes, (iv) increasing perceptual distance from psychological, physiological, and environmental stimuli such that these phenomena are observed and experienced ‘as they are’ without conceptually adding to or subtracting from them,(v) ongoing practice throughout daily activities and not just when formally seated in meditation, (vi) the use of an attentional referent such as observing the breath, (vii) avoiding any forced breathing or other attempts to modify (i.e., rather than accept) the present moment, and (viii) the deliberate engendering of an attention-set that supersedes any dispositional mindfulness capacity [3,5].

Arguably the most popular delineation of mindfulness used in the mental health literature is the one introduced by Kabat-Zinn who defines mindfulness as “*paying attention in a particular way: on purpose, in the present moment, and non-judgmentally*” [6]. According to Kabat Zinn, this definition was formulated as a working definition of mindfulness (i.e., rather than a final definition *per se*) and it is not intended to be “*completely amenable to a totally cognitive response*” [7]. It is perhaps unsurprising therefore that some authors consider aspects of Kabat-Zinn’s definition to be ambiguous [3].



For example, despite Kabat-Zinn's claim to the contrary [7], it has been argued that the term *non-judgmentally* does not, according to its literal meaning, encompass the discerning faculty of mindfulness that prevents the mindfulness practitioner from becoming ethically and morally in different to situations around them [3,5].

According to the traditional Buddhist interpretation, a fundamental aspect of mindfulness involves making (but not necessarily being attached to) judgments concerning: (i) what is unfolding in the present moment, and (ii) how to respond to situations in an adaptive and ethically wholesome manner [8]. One of the reasons Buddhism advocates that judgment-making faculties should remain active and intact during mindfulness is to avoid the scenario where the mindfulness practitioner's (and/or another individual's) wellbeing is at risk, yet due to being non-judgmental, they choose not to take preventative action [8].

A related area of debate concerning the attributes of mindfulness is the extent to which mindfulness integrates meditative modes that are more concentrative in aspect, as opposed to modes specifically intended to foster meditative and spiritual insight (e.g., insight into Buddhist principles such as *impermanence* and *emptiness* that overlap with emerging evidence from quantum mechanics research concerning the absolute nature of reality) [3]. According to traditional Buddhist teachings, mindfulness is principally a means of regulating meditative concentration in order to ensure that concentration remains at the optimum level for the extraction of meditative insight [9]. Thus, based on the Buddhist model, mindfulness is neither concentrative meditation nor is it insight meditation – it is the attentional faculty that moderates extraneous thinking such that meditative concentration and/or insight can be cultivated [9]. This represents a fundamental departure from interpretations of mindfulness in contemporary interventional approaches where mindfulness is often presented as a form of meditation in and of itself (i.e., rather than a faculty that regulates concentration during meditation).

A further key issue in the debate concerning an appropriate definition of mindfulness is whether it is a psychological or spiritual faculty [5]. At present, differing academic stances exist because in the traditional Buddhist setting, mindfulness is practiced within the context of spiritual development where enlightenment (i.e., a state in which all forms of ignorance and suffering are permanently transmuted) is the ultimate goal [3]. This is obviously different to clinical models of mindfulness where the primary focus is on relief from psychiatric and/or somatic illness. Accordingly, as part of efforts to reduce some of the disconnect between MBIs and traditional Buddhist approaches to mindfulness, the last few years have witnessed the formulation and empirical evaluation of what have been termed *second-generation MBIs*.

Unlike *first-generation MBIs* such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT), second generation MBIs – such as the eight week secular intervention Meditation Awareness Training (MAT) – are overtly spiritual in aspect and teach mindfulness within a practice infrastructure that integrates what are traditionally deemed to be prerequisites for effective meditative development [8]. For example, MAT utilizes phases of concentrative meditation in order to calm and focus the mind, immediately followed by insight meditation techniques such as guiding participants to search for the existence of an intrinsically existing 'self' or 'I' entity [10]. In conjunction with mindfulness techniques, MAT also employs meditative techniques intended to engender (for example) self-control, perceptive and decision-making clarity, citizenship, patience, generosity (e.g., of one's time and energy), loving-kindness, and compassion [10]. In a number of separately conducted quantitative (including some randomized and non-randomized controlled trials) and qualitative studies (including case studies), MAT has been shown to be an effective treatment for individuals with anxiety and depression [11,12], workaholicism [13], co-occurring schizophrenia and pathological gambling [14], and work-related stress [15].

The intervention has also been shown to improve job performance and job satisfaction [10,15].

A recently proposed second-generation MBI definition of mindfulness is: "*Mindfulness is the process of engaging a full, direct, and active awareness of experienced phenomena that is: (i) spiritual in aspect, and (ii) maintained from one moment to the next*" [10]. In above definition the, rather than a passive or non-judgmental awareness, an active and discriminative form of awareness is advocated. This is to emphasize that in addition to observing and accepting the present-moment, mindfulness involves actively participating in it. The purpose of the 'participating observer' notion is to help mindfulness practitioners appreciate that it is possible (and indeed essential) to observe and remain unattached to present moment experiences, whilst simultaneously discerning how to respond in an adaptive and ethically wholesome manner [8].

One of the reasons that second-generation MBIs openly adopt a spiritual model of mindfulness is to help prevent service-users (and mindfulness stakeholders more generally) becoming confused (or being inadvertently misled) as to the nature of the intervention they are receiving [8]. FG-MBIs have been criticized for being ambiguous in this respect because whilst some of the founders of such approaches (e.g., Kabat-Zinn) have asserted that FG-MBIs wholly embody the Buddhist Dharma (Dharma is a Sanskrit word that, in the context employed here, means 'Buddhist teachings'), they have seemingly rejected the idea that such approaches are spiritual in nature [7]. This position is likely to be difficult for some Buddhist teachers and psychologists to accept because it is illogical (and arguably nonsensical) to assert that an interventional approach that embodies the Buddhist (and therefore spiritual) teachings is not spiritual in nature.

Thus, the term *spiritual in aspect* is included in the above outlined and newly-introduced definition of mindfulness in order to clarify for potential participants of second-generation MBIs that rather than an attention-based psychological technique designed to improve concentration, cognitive functioning, and/or levels of psychosomatic wellbeing, they are receiving an intervention that deems spiritual development (for oneself and others) to be the primary objective of mindfulness. The term *spiritual in aspect* effectively refers to the transpersonal aspect of mindfulness and it implies that the effective cultivation of mindfulness stems from the mindfulness practitioner's understanding that self, birth, death, and ignorance are all concepts that can be transcended [16]. Shonin and Van Gordon have commented on the issue of avoiding acknowledging the spiritual nature of mindfulness as follows:

"If researchers and scientists veer away from describing mindfulness and other types of evidence-based meditation practice as spiritual, then spiritual will remain a 'taboo' word. ... Spiritual is a part of who and what we are. Whether we like it or not, and whether we know it or not, everything that we do is a spiritual act. Our thoughts, words, and actions influence the long-term happiness of every other sentient being and all phenomena in the universe. They influence who we are now, and who we will be in the future. When we observe ourselves living and participating in the present moment, and when we are mindful of how we interact with the world, these are spiritual acts. The mindful warrior knows this and is not afraid to call themselves a spiritual person, or to call mindfulness a spiritual practice." [16].

Practitioner Competency in Administering Mindfulness-Based Interventions

There is growing awareness in the mental health literature of the need for mindfulness clinicians and instructors to have in-depth personal experience of practicing mindfulness [3]. This is consistent with the traditional Buddhist model of mindfulness teaching where emphasis is placed more on the extent to which the teacher embodies mindfulness in their words and actions rather than their competency at providing instruction via conventional learning formats (e.g., manual-based teaching/lecturing, dialogue and psycho-education during clinician-patient sessions, etc.) [3]. Findings from second-generation MBI qualitative studies attest to this principle and demonstrate that participants assign importance to the mindfulness instructor's ability to impart an experientially-informed and authentic transmission of MBI learning outcomes [10,12].

Although initiatives are underway with the intention of disseminating best-practice and assessment guidelines for MBI clinicians (see, for example, the *Mindfulness-Based Interventions – Teaching Assessment Criteria* [MBI:TAC]) [17,18], such initiatives have been devised with a limited number of MBIs in mind (e.g., MBCT, MBSR). Furthermore, such initiatives are not necessarily sympathetic of the many subtle ties that are traditionally deemed to underlie effective mindfulness practice and teaching. For example, according to recently published recommendations [19], effective mindfulness teaching requires (amongst other things) the mindfulness teacher to avoid: (i) the tendency to be too mindful, (ii) allowing their ego (and attachment to the idea that they inherently exist) to interfere with or influence their teaching, and (iii) teaching without experiential knowledge of meditative concepts such as impermanence, emptiness, and interconnectedness (for further information on the subtle factors that underlie effective mindfulness teaching, see the *Practical Recommendations for Teaching Mindfulness Effectively*) [19]. Thus, there is clearly work to be done in order to ensure that mindfulness instructors working in clinical settings employ practice-informed pedagogic techniques and conform to minimum standards and competency levels [20].

Are There Risks Associated with Mindfulness?

In the peer-reviewed mental health literature, reports of adverse effects following mindfulness practice are scarce. However, research specifically investigating whether there are health risks associated with participation in MBIs is significantly underdeveloped [1,21,22]. Furthermore, there are a small number of instances where mindfulness-encompassing (but not exclusively mindfulness-based) meditation modalities have precipitated non-salutary health outcomes. For example, a case study reported that three individuals previously diagnosed with schizophrenia experienced acute psychotic episodes whilst attending meditation retreats [23], and another case study reported that two individuals with a history of schizotypal personality disorder experienced acute psychosis after practicing meditation [24]. Three more individuals with a psychiatric history were also reported to have experienced psychotic symptoms following meditation practice [25], and in another case study a female experienced delusional episodes accompanied by violent outbursts and inappropriate laughter following meditation [26]. Other examples of psychosis-related effects include two individuals without a history of psychiatric illness that experienced psychotic symptoms following meditation practice [27], and a male in which an acute and transient psychotic episode was induced by meditation [28].

In addition to psychotic episodes, other adverse effects of meditation reported in the empirical literature include painful kinesthetic sensations, addiction to meditation, anti-social behavior, impaired reality testing, dissociation, despair, and exhaustion [1,29]. However, once again, the extent to which these findings have implications for MBIs is questionable because the design of these studies makes it difficult to apportion any negative outcomes to mindfulness as opposed to other meditative modes (e.g., Transcendental Meditation, QiGong, etc.) [21]. Similarly, factors completely unrelated to meditation may also have exerted a confounding effect (e.g., environmental stressors such as lack of food or social contact during meditation retreats) [21].

Thus, the very small participant numbers involved in most of the aforementioned studies significantly limits the generalizability of these findings, as does the fact that some of the participants had a history of mental illness (including psychotic episodes). However, although the reliability of evidence indicating possible risks of mindfulness is highly questionable, the matter certainly warrants further investigation because the traditional Buddhist scriptures and commentaries specifically caution against the incorrect teaching and practice of meditation and/or mindfulness [1,3]. Such recommendations may not have been subject to rigorous empirical evaluation, but they have been subject to more than 2,500 years of testing and positive experience by Buddhist adepts and practitioners [1,5,21].

Examples of some of the risks traditionally associated with incorrect meditation/mindfulness teaching and practice include: (i) asociality and nihilistic outlook, (ii) developing an excessively-pious personality affectation (where mindfulness practitioners or teachers go to great lengths in order to appear to be mindful [e.g., constant/inappropriate smiling, talking/moving excessively slowly in the presence of others, etc.] without actually having any presence of mind), (iii) addiction to the tranquil states associated with meditative concentration, (iv) compassion burnout, and (v) psychological and/or somatic discomfort due to forced/incorrect meditative breathing [1,5,19].

Does the Evidence Match the Momentum?

Empirical and clinical evidence supporting the application of MBIs in the treatment of psychopathology has markedly increased in the last decade. The most convincing evidence – based on meta-analytic studies – exists for the utilization of mindfulness in the treatment of mood and anxiety disorders [30-32]. As a consequence of these findings, both the American Psychiatric Association (US) and the National Institute for Health and Care Excellence (UK) advocate the use of MBCT in the treatment of recurrent depression in adults [3]. There is also preliminary evidence that supports the use of MBIs in the treatment of a broad range of mental health issues including (but not limited to) schizophrenia-spectrum disorders, addiction disorders (both chemical and behavioral), bipolar disorder, post-traumatic stress disorder, eating disorders, and anger dysregulation [33-35].

Furthermore, neuropsychological functional and structural imaging studies demonstrate that mindfulness can improve self-regulatory efficacy via neuroplastic changes in (for example) the anterior cingulate cortex, fronto-limbic network, and default mode network structures [36]. There also appears to be a role for mindfulness in (for example): (i) forensic psychology as a tool for reducing reoffending, modulating impulsivity, and regulating anger [37], (ii) occupational psychology for improving work-related wellbeing, work productivity, and job performance [38], and (iii) educational psychology for improving academic performance, knowledge acquisition, quality of learning environment, and cognitive functioning [39,40].

However, despite these promising findings, when taken collectively, the evidence-base for MBIs is limited by various factors including (but not limited to): (i) a paucity of long-term follow-up studies, (ii) an over-reliance on self-report measures, and (iii) poorly-designed control interventions that do not account for confounding factors such as therapeutic alliance, non-mindfulness-based relaxation techniques, and group interaction [3,11,20]. Furthermore, it is difficult for MBI (and other non-pharmacological) intervention studies to implement blinding protocols to the same extent that might be employed in pharmacological efficacy trials. This is a particularly important methodological consideration for mindfulness interventions because the current popularity of mindfulness amongst the general public may introduce a form of intervention or performance bias that inflates therapeutic outcomes over short periods of time. In other words – and in addition to the methodological limitations outlined above – the media and scientific hype that has built up around mindfulness means that drawing reliable inferences on mental health outcomes from mindfulness-based interventions is problematic.

An example of such hype is arguably claims in the mindfulness clinical literature concerning the levels of meditative development being made by some MBI participants. For instance, it has recently been suggested that participants of eight-week group MBI interventions can demonstrate levels of insight and meditative development equivalent to that experienced by advanced Buddhist meditation practitioners [41]. Such claims are surprising because although in Buddhism's 2,500-year history there are instances of spiritually gifted individuals undergoing rapid meditative development, such individuals are incredibly rare and are normally regarded as saintly beings [3]. Indeed, even Buddhist practitioners that choose to dedicate their entire life to meditation (e.g., certain Buddhist monastics and yogis) typically have to train for decades (and under the direction of an accomplished meditation teacher) in order to arrive at what might be regarded as an advanced level of meditative development [20].



Thus, in conjunction with the growing popularity of mindfulness amongst the general public, unsubstantiated claims suggesting that mindfulness can induce advanced meditative experiences (i.e., without requiring prolonged periods of practice) may create an atmosphere of anticipation among participants and thus contribute to the intervention effect referred to above.

Consistent with the emerging empirical evidence [30-40] as well as the general consensus of clinicians, researchers, and the general public, it is concluded that MBIs have the potential to play an important role in psychiatric treatment settings as well as in applied psychological settings more generally. However, due to the rapidity at which mindfulness has been taken out of its traditional Buddhist setting, and what is possibly evidence of media and/or scientific hype concerning the potency of mindfulness [5], it is recommended that future research seeks to (i) consolidate and replicate research findings, (ii) assess the maintenance of outcomes over longer time periods, (iii) investigate potential adverse effects, (iv) fully control for potential performance bias in MBI intervention studies, (v) formulate comprehensive training and supervision curricula – that are informed by the traditional meditation literature – for secular MBI instructors, and (vi) investigate the Buddhist position that sustainable improvements to mental (and spiritual) health typically require consistent daily mindfulness practice over a period of many years (i.e., they do not arise after attending eight two-hour classes with some self-practice in between).

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