#### ARTICLE

# Mindfulness-based training in residential settings: rationale, advantages and obstacles<sup>†</sup>

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<sup>†</sup>For a complementary article on this topic see Witharana & Adshead (2013) Mindfulness-based interventions in secure settings: challenges and opportunities. *Advances in Psychiatric Treatment*, 19: 191–200. Fd.

#### **SUMMARY**

The past few decades have witnessed the synthesis of Buddhist mindfulness practice with the Western psychological paradigm, leading to the development of a variety of mindfulnessbased interventions. These are delivered to various populations to treat a wide range of physical and psychological disorders, and several protocols have been implemented and evaluated, mostly, if not exclusively, in open or out-patient treatment settings. Little attention has been given to the definition of criteria, guidelines and protocols for the use of mindfulness in residential settings such as in-patient psychiatric wards, secure and forensic services, prisons, nursing homes and hospices. In this article, we discuss the rationale, advantages and obstacles to delivering mindfulness-based interventions in residential treatment settings, with specific reference to forensic settings. We also discuss the problem of developing robust outcome data and recommendations for future research.

#### **LEARNING OBJECTIVES**

- Understand the advantages and challenges of introducing mindfulness-based interventions in in-patient settings.
- Understand how mindfulness-based interventions can be adapted to accommodate individual patient psychopathology.
- Understand how mindfulness-based interventions can be adapted to specialist clinical settings such as forensic units.

#### **DECLARATION OF INTEREST**

None

Mindfulness is the capacity of the human mind to be directly and simultaneously aware of both the content of experience (e.g. what one is seeing, thinking or feeling right now) and the form of that experience (i.e. directly apprehending all of one's moment-to-moment experience as a continual flux of either external sensory input or internal psychological events such as cognitions or emotions). Mindfulness is not a function of thought – it is a form of awareness that has the property of self-reflexivity, i.e. both the awareness of what is happening and the awareness of being aware. As a mental faculty, mindfulness has been valued within the Buddhist tradition for 2500 years and its systematic development through a variety of practices, including mindfulness meditation, remains a central feature of Buddhist practice.

Over the past 20 years, there has been a tremendous surge of interest in mindfulness from diverse groups within the scientific community, including neuroscientists, clinicians and empirical psychologists. Although there is currently no standard operational definition of mindfulness or how to measure it (Van Dam 2010), the research literature frequently defines it as moment-to-moment awareness of experience without judgement (Davis 2011).

Several therapeutic interventions integrating Buddhist mindfulness practice with the Western psychological paradigm have been developed for out-patient settings for various populations and disorders for patients who are not in the acute phase of their illness. For an introduction to the psychotherapeutic application of mindfulness, see Mace (2007). Mindfulness-based programmes include mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT). Other programmes which use mindfulness techniques to a greater or lesser extent include dialectical behaviour therapy (DBT) and acceptance and commitment therapy (ACT). For the purposes of this article, mindfulness-based training refers to any therapeutic intervention that employs mindfulness techniques.

# Mindfulness-based v. cognitive—behavioural approaches

There are a number of differences between mindfulness-based approaches and cognitive behavioural approaches. At their heart, the latter aim to alter the negative content of patients' thoughts and feelings. A cognitive—behavioural approach may therefore introduce for a patient a method of identifying negative automatic thoughts (e.g. a thoughts and feelings diary), with a method of working with those thoughts so as to modify them (e.g. identifying and then actively challenging the rational basis of any cognitive distortions). Challenging the content of negative automatic thoughts then leads to a reduction of negative affect states.

In contrast, mindfulness-based approaches aim to increase the patient's capacity to experience mental events that have a negative content (e.g. a negative thought such as 'I am a bad person' or an episode of somatic anxiety starting, reaching a peak and then fading away) without judgement or negative reaction. The largely automatic (i.e. unmindful) process whereby a patient reacts negatively to a mental event that has negative content (e.g. by becoming more distressed) can set up a reverberating circuit of increasing distress, with further negative mental states occurring as a result - the negative reaction to the mental event, not the mental event itself, becomes the problem. Helping the patient to experience a negative mental event as a transient mental phenomenon that they can simply accept and to which they do not have to react negatively leads to reduced distress and an increased sense of well-being and is at the heart of mindfulness-based approaches (Box 1).

It should be added that, although the therapeutic programmes so far developed from within the Western psychological paradigm are aimed at the remedial relief of problematic symptoms, Buddhist practice has as its aim the holistic development and transformation of the individual.

## Intervention for the acute phase of severe mental illness

The literature describing the delivery of mindfulness-based therapy in the acute phases

#### BOX 1 Case vignette: acceptance

A 42-year-old woman was admitted to an in-patient unit after self-harm in the context of an acute cannabis-induced psychotic episode. Her psychotic symptoms quickly resolved to reveal a personality structure characterised by impulsivity and dysthymia. While an in-patient, she successfully engaged in an open mindfulness group aimed at promoting basic mindfulness techniques. Following discharge, she continued her mindfulness practice by engaging in a more structured group at a day hospital. After several weeks, she reported a greater capacity to identify and contain distressing mental states without engaging in self-defeating behaviour. She reported experiencing negative mental states, but feeling less troubled by them.

of severe and enduring mental illness and in residential settings is developing rapidly (e.g. Segal 2002; Baer 2003; Cullen 2011). There is growing evidence that MBSR, MBCT, DBT and ACT programmes can be successfully applied in in-patient settings, forensic services and in dealing with challenging behaviour. They have been used to treat borderline personality disorder (Barley 1993; Bohus 2000), parasuicide in adolescents (Katz 2002) and psychosis (Bach 2002; Gaudiano 2006) and to enhance the performance of psychiatric treatment teams (Singh 2006).

Mindfulness-based intervention programmes are applicable to group therapy and therefore benefit from the therapeutic effects and cost efficiencies of group work. Mindfulness practice obtains good adherence and appears to be well tolerated even by patients with severe problems or in an acute phase of their illness (Mason 2001). Mindfulness interventions are therefore attractive candidates for inclusion in therapeutic programmes offered within psychiatric in-patient facilities. This is especially so in specialised units treating specific disorders, where interventions can be precisely targeted to common areas of psychopathology.

Nevertheless, in-patient settings present particular challenges not encountered with outpatients and to address these effectively, standard mindfulness-based protocols need to be adapted to the specific context and needs of patient groups (Didonna 2009a).

To illustrate this, we will discuss here some considerations when applying mindfulness-based interventions in residential settings.

Despite their potential, there are few statistically and methodologically robust outcome studies showing the effectiveness of mindfulness-based interventions in residential and forensic settings and this highlights a need for future research. The need for such studies is only heightened in the current economic climate, where budgetary constraints and swiftly changing models of service delivery mean that clinicians are increasingly under pressure to show that in-patient interventions not only are effective in producing lasting improvements in symptoms, but also increase productivity by reducing length of stay.

## Rationale and advantages of in-patient intervention

The importance of external environmental conditions in supporting the development of positive internal mental states is very well recognised in the Buddhist tradition, and for this reason, Buddhists pay careful attention to the conditions they set up on retreat. Typical retreat

conditions ensure that the physical necessities of life are met without individuals having to compete with others for limited resources, they relieve the individual of their day-to-day responsibilities and, by deliberately removing external distractions, they provide time and space for mindfulness practice – all within a supportive social context, i.e. alongside others who are similarly practising.

By analogy, various aspects of in-patient residential settings can be made similarly supportive.

For some in-patients, their admission primarily provides asylum, removing them from difficult aspects of their usual domestic environment (e.g. family conflict, high expressed emotion, loneliness, psychological or physical violence). However, once admitted, a positive therapeutic social environment can be used to generate an atmosphere of safety, acceptance and care. This supportive aspect of the environment is particularly helpful for patients showing more severe pathology.

The therapeutic benefits of mindfulness training are enhanced through regular and consistent practice. Twenty-four-hour staffed units are well suited to promoting routine, even daily, practice for in-patients because staff are always present to encourage, help and guide practice whenever it fits naturally into a patient's daily schedule. And because in-patients live full time in a therapeutic environment, they also have the opportunity to intensify their practice – perhaps practising for longer or more frequent periods – should this be appropriate.

Mindfulness-based practices can be solitary, but do lend themselves very well to group therapy programmes. The well-established benefits of delivering psychotherapeutic interventions in groups can therefore be available to enhance the effectiveness of basic instruction and practice. Moreover, their efficient use of therapists' time means that groups are inherently cost-effective.

Mindfulness practices rehearse psychological skills such as acceptance or decentring (Box 2, Box 3). These skills enhance patients' resilience and coping (Davis 2011), which can then be applied at times of crisis. Another advantage of delivering treatment to in-patients, therefore, is that staff will be available to help patients apply their newly learned skills in real time, while distressing emotional states are occurring.

Most in-patient units are staffed by multidisciplinary teams whose members often have quite different theoretical backgrounds. Although this diversity is useful when generating a broad perspective to understand patients' difficulties, therapeutic models that require interdisciplinary collaboration can be problematic without a common perspective. The mindfulness-based

## **BOX 2** Some therapeutic effects of mindfulness practice

Dechaining – the objective observation of psychological events so as to break the cycle of rumination and anxiety response

Decentring – the capacity to observe one's thoughts and feelings as temporary mental phenomena rather than true reflections of reality (Mace 2008)

Reduced emotional reactivity — the consequence of reducing automatic pathways through developing the skill of self-observation (Siegel 2007)

Acceptance – experiencing intrapsychic events without judgement or avoidance (Hayes 2003)

approach has developed over recent decades as a transtheoretical model. Since the approach is fundamentally phenomenological or experiential, i.e. no theoretical framework is used to explain or analyse intrapsychic phenomena, this means that professionals from different backgrounds (psychodynamic, cognitive—behavioural, biological, existential, humanistic, etc.) can apply mindfulness techniques on an equal footing.

Mindfulness-based training is also an efficient and effective self-management tool for healthcare professionals to reduce stress, to prevent burnout and to enhance the performance of treatment

## **BOX 3** Case vignette: dechaining and decentring

A 28-year-old man with a diagnosis of dissocial (antisocial) and borderline personality disorder with transient psychotic episodes was admitted to a secure hospital because he showed escalating violence. He responded well to initial stabilisation with antipsychotics, but continued to show intermittent but significant violence to others. He became a regular attendee at a mindfulness group and completed his homework assignments. At one session, he described a situation where he had been practising mindfulness in the ward day room and saw a member of staff smiling. He described feeling overwhelmed with anger because he thought she was laughing at him and he resisted an impulse to assault her. He then described how he was able to directly 'see' the links between the external stimulus (the member of staff smiling), his interpretation of this (that she was ridiculing him) and his response (to feel angry and assaultive). He described the assaultive impulse subsiding on this realisation. The session continued with a discussion about how his experience demonstrated the positive phenomena of dechaining and decentring and how his increased capacity to experience his mind with reduced emotional reactivity was due to his regular mindfulness practice.

#### **BOX 4** Benefits of in-patient mindfulnessbased interventions

#### For patients

- · Asylum of the in-patient setting
- · Supportive social environment
- · Ease of developing a daily routine
- . Time to intensify practice
- · Benefits of group work
- · Opportunity for real-time application of skills learned

#### For staff and organisations

- Transtheoretical perspective of mindfulness suits staff from different professional backgrounds
- Staff can use mindfulness to manage their own mental well-being
- Cost-efficiency of group therapy for organisations

teams in adult psychiatric hospitals (Singh 2006; Davis 2011).

The benefits of mindfulness training in inpatient units are summarised in Box 4.

#### **Challenges of in-patient intervention**

Delivering mindfulness-based interventions to inpatients requires a realistic understanding of the potential obstacles and challenges that are likely to be encountered in residential settings. These are summarised in Box 5 and discussed in more detail in the rest of this section.

## **BOX 5** Challenges with in-patient mindfulness-based interventions

- Patients present with greater morbidity and comorbidity
- Patients are often in relapse or acute crisis
- Patients are familiar with more traditional therapies such as cognitive—behavioural therapy
- Patients' cultural and religious resistance and prejudices
- · Side-effects of medication
- High turnover of patients
- · Mixed-ability groups
- Institutional resistance to mindfulness-based approaches
- Institutional resistance to group work
- Operational difficulties delivering group work
- · Staff training
- Staff commitment to personal mindfulness practice
- Mindfulness-based programmes need to be adapted for in-patient population

#### Patient-related factors

In-patients usually have more severe and chronic disorders, with more comorbid conditions, than do out-patients. Moreover, admission has usually been precipitated by some form of crisis or acute relapse. Any of these factors may be contraindications to starting mindfulness-based practice. We will return to exclusion criteria later.

Mindfulness-based practices are relatively new in many centres and although familiarity with mindfulness techniques is increasing in the general population and they are therefore increasingly acceptable for self-selected out-patients, in-patients are likely to expect more traditional (conventional) therapies. In-patients may therefore need more engagement and psychoeducational interventions to promote their understanding of the utility of mindfulness-based practices before becoming sufficiently motivated to participate.

Patients' medication regimes are often altered following admission, and in-patients are more likely to experience side-effects from medication than out-patients. In particular, drowsiness can become an almost insurmountable barrier to mindfulness practice, which, to be effective, requires alert awareness. Other unpleasant and distracting physical symptoms, such as akathisia, may also reduce patients' capacity to concentrate or participate in sessions.

Many acute in-patient units have a rapid turnover of patients, and the shorter the length of stay, the higher will be the attrition rate from closed groups. And if a group is open to newcomers, there will be a range of learning, understanding and experience among the participants. Meeting the needs of the more experienced participants may not be possible while also giving basic instruction to beginners. There may therefore be no alternative but to induct beginners separately to allow them to develop their skills to a sufficient level before graduating to group sessions (Didonna 2009a).

#### Institutional factors

Attempts to develop a mindfulness-based programme in an institution may meet with managerial and clinical resistance. For example, there may not exist a precedent or any opportunity for ward-based staff to deliver group interventions. And even where there are sufficiently experienced group facilitators, ward-based staff may have very little understanding of mindfulness-based interventions. Not only might this detract from the supportive milieu: in extreme cases it might even lead to the misinterpretation of a patient's behaviour. For example, if a patient were to go to his room and sit quietly to engage with mindfulness

practice, this might be misinterpreted as social withdrawal or even catatonia.

Even with managerial and clinical support, organisational factors may present operational difficulties commonly encountered with the delivery of any group programme in an in-patient setting. For example, rostering in-patient staff to be available at the same time each week for a number of weeks can be logistically difficult, especially in the current reality of organisational change and increasing financial pressure. Or competing demands, perhaps from unforeseen clinical crises, may make it impossible for ward-based staff to maintain their protected time to deliver group work.

Clearly, to realise the maximum benefits of delivering a mindfulness-based programme in a residential setting, there would need to be an extensive staff training programme, with regular supervision of the therapeutic team by a suitably experienced mindfulness therapist (Didonna 2009b). In the current climate, this may not be practicable.

Since mindfulness-based practices and the difficulties that patients encounter when practising are primarily experiential, to be effective, mindfulness facilitators need to have their own regular, personal practice. Otherwise, they will not be able to convey to patients the directly lived quality of the mindfulness experience. This clearly requires a level of commitment from practitioners beyond that of most other interventions.

Given the heterogeneity of in-patient settings, clearly there can be no standard and universally applicable model for mindfulness-based groups. Rather, when developing an in-patient mindfulness programme, it will be necessary to adapt the approach to the existing culture within the unit, the existing treatment programme, the availability of resources and the particular morbidity of the patient group.

# Problem formulation and mechanisms of change

Despite the increasingly large body of evidence demonstrating the effectiveness of mindfulness-based approaches for several disorders and clinical problems (Baer 2003; Didonna 2009a), mindfulness cannot be considered a panacea or a therapeutic approach that can be indiscriminately applied as a generic technique for all disorders. In all cases, there needs to be a clear formulation of how mindfulness training can address the factors activating and maintaining the patient's condition.

When developing a mindfulness-based problem formulation, it is important to help the patient to:

- clearly conceptualise the problem
- understand the mechanisms of change that can help modify the identified activating and maintaining factors
- understand the role of regular mindfulnessbased practice in effecting change (Teasdale 2003; Didonna 2009a; Kocovski 2009).

Although it may not be possible to characterise all of these elements fully (not least because there remains much debate about the mechanisms of change that underlie mindfulness-based interventions; Grabovac 2011), mindfulness training is probably most effective when this understanding has been optimally developed between patient and therapist.

A clear formulation will challenge any preconceived ideas that a patient has about mindfulness-based practice. And an understanding of the way in which the training can modify their problem, together with direct experience of its effectiveness, are likely to be strong motivating factors for a patient both to start and to continue to practise. This is particularly true in residential settings, where at the time of admission, most patients will not have any pre-existing motivation to start mindfulness-based practice.

Before starting a mindfulness-based training programme, problem formulations can be shared with patients in a variety of ways, for example in either individual or group sessions, through verbal descriptions and explanations, or by using prepared written material.

#### Accommodating parallel therapies

The potential for confusion in in-patients undergoing parallel treatments in different modalities, each with their own rationale and meaning, should not be overlooked. Although other modalities do complement mindfulness-based techniques, they employ very different approaches. For example, some use distraction as a means of coping with negative affect, whereas mindfulness-based interventions promote a non-judgemental awareness of negative affect. It is likely that a patient receiving parallel therapies will need help with their integration, so that they are clear how and when various techniques should be applied.

# Implementing a mindfulness-based intervention in a residential setting

#### Potential exclusion criteria

To implement and optimise the effectiveness of a mindfulness-based intervention, it is necessary to screen out those patients who are unlikely to benefit from the approach either because they might be unable to tolerate the practice or because they might disrupt the group process. For some patients, in particular those with severe or chronic disorders and especially at the beginning of their exposure, mindfulness-based interventions may be challenging and even lead to a temporary increase in negative affective states such as anxiety (Didonna 2009b). For example, body scan practices ask patients to place and maintain the focus of their awareness on particular body sensations such as the contact their feet make with the floor or sensations in the abdomen or pelvic area. Acutely anxious patients, especially those who have abnormal relationships with their bodies (perhaps they have a history of traumatic abuse or they engage in self-harming behaviour), may find the process of focusing internally anxiety provoking and this can be accompanied with cognitions of losing control (Didonna 2009a).

Although there are no validated exclusion criteria reported in the literature (Dobkin 2012), acutely unwell patients will clearly need to be carefully selected before starting mindfulness-based practices. Box 6 lists the exclusion criteria usually applied in practice. Patients initially not recommended for mindfulness-based approaches may well become suitable as their condition improves with other forms of treatment.

#### Tailoring group work

When planning the delivery of group work, it is necessary to find methods, strategies and forms of practice that best fit patients' particular psychopathology. For example, patients with chronic, stable hallucinations may only be able to tolerate

## **BOX 6** Mindfulness-based interventions – exclusion criteria

- Intoxication with substances and other acute confusional states
- · Severe cognitive deficit or impairment
- Active acute psychotic symptoms or an extensive and stable delusional state
- Gross psychomotor retardation or agitation
- Euphoria and overactivity in bipolar affective disorder
- Acute depressive episode with an inability to establish rapport with a therapist or group
- Severe or frequent dissociative crises
- Poor insight into need for treatment
- Poor motivation
- Excessively critical, hostile or other oppositional attitudes which would undermine capacity to collaborate with group process

## BOX 7 Techniques for experiencing mindfulness

- Formal practices (i.e. requiring periods of withdrawal from other activities)
- Sitting mindfulness meditation (e.g. attending to the sensation of breathing, internal bodily sensations using body scan, etc.)
- Movement meditation (e.g. walking meditation)
- Informal practices (i.e. can be undertaken throughout the day amid other activities)
- Mindful activity (e.g. mindful eating, mindful seeing)
- Mini-meditations (e.g. the 3-minute breathing space)

(Mace 2007)

short sessions. For patients with severe symptoms, techniques should be built up slowly; for example: shifting gradually from external sensory awareness exercises (e.g. walking meditation, mindful seeing) to inner mindfulness experiences (e.g. body scanning, sitting mindfulness meditation); from shorter to longer sessions; and from informal practice (e.g. mindful eating) to formal mindfulness meditation practices (e.g. loving kindness meditation) (Didonna 2009a). Basic mindfulness techniques are listed in Box 7.

#### Interventions in secure settings

Morbidity, comorbidity and the suicide risk in forensic populations are high, but Witharana & Adshead (2013) have drawn attention to the particular difficulties of applying cognitivebehavioural approaches with this patient group due to severe affect dysregulation and impulsivity. Patients cannot 'hang onto' cognitions or affects long enough to reflect on them. And because of limited self-awareness, patients may also have difficulty choosing alternative conscious responses to trigger stimuli (Wright 2009). However, mindfulness interventions, either as an adjunct to cognitivebehavioural approaches or as an alternative for patients not amenable to them, may disrupt these types of habitual processing pattern (Grabovac 2011). Further work in this area is needed to show that mindfulness-based approaches can indeed reduce morbidity in forensic populations.

Mindfulness-based interventions may also have a specific role in reducing risk. Howells *et al* (2010) have highlighted three areas relevant to the risk of reoffending that are potentially amenable to mindfulness-based approaches:

- negative affective states
- self-regulatory breakdown (impulsivity)
- · anger.

For mindfulness to have value in risk reduction, it would need to reduce either the frequency or the intensity with which dynamic risk factors motivate antisocial behaviour.

# Defining targets and goals in secure settings

These specific and focused targets notwithstanding, at its best, a mindfulness-based intervention is a systematic process of mental training and ethical conduct in which sustained self-observation leads to increased awareness, self-control and inner balance (Hart 1987). The central aim of mindfulness-based training is to systematically develop the skill of being present with both external experience (external sensory impressions, interactions with others, physical actions) and internal experience (body sensation, cognitions, mood) and the interplay between the two.

With this in mind, there are potentially a broad range of areas to which mindfulness-based interventions can be targeted in forensic settings (Box 8). As mentioned above, clearly identifying the rationale for interventions motivates patients to engage with regular practice, but it is also a means of evaluating their success.

# Practical issues of implementation in forensic settings

Institutions tend to generate strong cultures, and forensic institutions in particular may harbour attitudes that do not value some of the qualities associated with mindfulness practice – for example reflection, the equanimous acceptance of present-moment experience and interiority. Before

## **BOX 8** Examples of targets and goals in secure settings

- Decrease impulsivity (e.g. aggressive behaviours, selfharm, antisocial acts, rule-breaking)
- Increase capacity to introspect and develop selfawareness
- Learn new ways to relate to and deal with negative thoughts or emotions
- Reduce symptoms especially depression, suicidal ideation and self-harming behaviour
- Reduce substance misuse
- Reduce recidivism
- Cultivate feelings of friendliness and compassion, which are incompatible with aggressive and harmful behaviours
- Develop spiritual values
- Decrease stress in staff

implementing a mindfulness-based programme, it may be necessary to challenge elements of resistance in the wider culture.

The relational security available during practice sessions needs to be sufficient to contain patients' assessed levels of risk. A situation that does not feel safe cannot be conducive to the relaxed, open awareness that is the aim of mindfulness practice.

Forensic patients often have long histories of living in abusive and invalidating environments where their emotions, cognitions and needs have been suppressed and denied. As a consequence, they may experience their internal worlds as unreliable and dangerous. Learning to relate to and accept their emotional, cognitive and sensory experience can therefore be particularly challenging for this group, especially if practice intensifies the experience of dysthymic states, leading, for example, to increased levels of arousal, difficult memories or excessive rumination.

Although there is no published evidence to suggest that mindfulness practice precipitates violence or self-harm in this group, as well as having experience of delivering mindfulness-based interventions, therapists in forensic settings also need to have sufficient confidence to deal with any acute or intense reactions that may arise in a session, for example acute anxiety states, dissociative crises or physical withdrawal.

#### The problem of the outcome

Studies investigating the effects of specific therapeutic interventions in in-patient settings are difficult to conduct and often methodologically flawed. This is largely because of the problem of isolating the effect of one particular intervention from the effects of others (e.g. individual psychotherapy, group therapy, medication) and from non-specific factors (e.g. ward atmosphere, therapeutic relationships with staff, social relationships between patients).

A naturalistic approach to mitigate these difficulties in assessing a mindfulness-based module would be to evaluate the outcome of a therapeutic programme both before and after introduction of the module. Another possibility would be to allow patients voluntary access to the module in addition to a standard treatment programme that is mandatory for all and then compare outcomes in the standard programme group with the standard programme plus mindfulness group. Clearly this approach is also flawed, but isolating the standard programme and non-specific effects in this way would be of interest.

As well as measuring symptom reduction between treatment and non-treatment groups,

studies evaluating the effects of mindfulness-based interventions might also include other dimensions of mental health such as emotional well-being (e.g. using the Positive and Negative Affect Schedule; Watson 1988), or resilience and coping (e.g. using the General Self-Efficacy Scale; Schwarzer 1995). There are also a number of scales available to measure mindfulness. The Mindful Attention Awareness Scale (Brown 2003) has attracted the most psychometric validation.

#### **Outcome studies**

There is a paucity of methodologically robust and statistically validated outcome studies describing the effectiveness of mindfulness-based interventions in residential settings and the ones discussed below should therefore be interpreted with caution.

Preliminary results from research involving prison inmates in India indicate that vipassana meditation (a type of meditation related to mindfulness-based interventions) helps reduce recidivism and increases inmates' emotional control, resulting in reduced feelings of anger, tension, hostility, revenge and helplessness. It also increases positive behaviours such as cooperation with prison authorities and decreases drug addiction, neurotic symptoms and other psychopathology (Chandiramani 1995, 1998; Vora 1995). Inmates practising vipassana meditation have shown an increased willingness to work, participate in other treatment programmes, abide by prison rules and cooperate with prison authorities (Vora 1995).

A 2-year outcome study in which male and female inmates of a low secure rehabilitation facility in the USA completed vipassana meditation courses reported a 53% decrease in recidivism among the men and a 57% decrease among the women (Parks 2003).

Bowen *et al* (2006) evaluated the effectiveness of a vipassana meditation course on substance use and psychosocial outcomes in an incarcerated population. After release from jail, course participants showed significant reductions in alcohol, marijuana and crack cocaine use compared with those in the treatment-as-usual control group. Course participation also showed decreased alcohol-related problems and psychiatric symptoms and increased positive psychosocial outcomes.

Laithwaite *et al* (2009) evaluated the effectiveness of a recovery group intervention based on compassionate mind training (a mindfulness-based intervention) for individuals with psychosis in a maximum secure hospital. The findings show an improvement in depression, self-esteem and

rating of self compared with others and a reduction in shame and general psychopathology.

Although these results show some interesting findings and are encouraging, they all have methodological flaws – in particular, inadequate control groups and small sample sizes. And significantly, participation in the mindfulness programmes was voluntary, not randomly assigned, thus raising the possibility that improved outcomes in the self-selected treatment groups are attributable to greater motivation and commitment.

#### **Conclusions and future directions**

Demonstrating the effectiveness of therapeutic interventions in an in-patient setting is notoriously difficult, and research into the effectiveness of mindfulness-based interventions in residential settings is in its infancy. Preliminary data are certainly promising, but need to be critically evaluated before findings can be generalised. In particular, methodologically robust evaluations of established mindfulness-based programmes and techniques used as a component of other treatment packages need to be conducted in in-patient and secure services.

Which mindfulness-based interventions work, for whom, and which strategies work best for particular disorders, populations and settings also needs further clarification.

Another central issue to explore in relation to challenging problems in residential settings is exactly which mechanisms of poor function that are amenable to mindfulness training (e.g. affect dysregulation, poor impulse control, poor response flexibility) bring about improved clinical outcomes.

Nevertheless, the existing evidence and practical experience suggest that mindfulness-based interventions can be a useful adjunct to treatment programmes in a variety of residential and forensic settings.

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#### MCQs

Select the single best option for each question stem

- 1 Mindfulness-based interventions may be particularly suited to in-patient psychiatric settings because:
- a in-patients are often acutely unwell
- **b** in-patient units often have a high turnover of patients
- c mindfulness-based practices are trans-theoretical
- d staff do not need any special commitment to mindfulness-based practice
- **e** in-patient units cannot provide stable and supportive environments.
- 2 It is true to say that:
- a mindfulness is a clearly operationalised concept
- b it is necessary to have a robust theoretical understanding of the process to benefit from mindfulness-based practice

- **c** mindfulness-based practices should not be encouraged with CBT
- d mindfulness is a faculty of the human mind
- **e** to yield any appreciable benefit, mindfulness needs to be practised for many years.
- 3 One exclusion criterion for mindfulnessbased interventions is:
- a mild psychomotor agitation
- b acute depressive episode
- $\boldsymbol{c} \hspace{0.1cm} \text{poor motivation} \\$
- d mild to moderate cognitive impairment
- e psychosis.
- 4 In secure settings, mindfulness-based interventions should not be used to:
- a decrease impulsivity
- b reduce recidivism
- c reduce substance misuse
- d reduce introspection
- e reduce symptoms.

#### 5 Mindfulness-based interventions:

- a are unsuitable for people with strong religious
- **b** require therapists to have a solid grounding in theoretical psychology
- c require therapists to maintain their own personal practice
- **d** are contraindicated with other therapeutic approaches
- are only suitable for addressing psychopathology.