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Abstract

Mindfulness interventions within adult populations are becoming increasingly popular. Research suggests that mindfulness can deliver lasting improvements in self-awareness and emotional stability to adults with severe and chronic conditions. As yet, research within child and adolescent populations is in its first stages, though mindfulness shows great clinical promise for young people. This paper aims to provide an overview of mindfulness to professionals who are working in child or adolescent settings. Initially, it will provide the reader with some orientation to and definitions from the field, before summarizing the current evidence for the utility of the approach. The paper recommends specific clinical modifications for mindfulness with children and adolescents, as well as reviewing how to monitor and enhance the development of this skill. Finally it highlights important differences between mindfulness, relaxation and other meditative techniques.

Keywords: Mindfulness, Adolescent, Child, Young.

Orientation

Within adult populations, mindfulness applications are popular and gaining an increasingly supportive evidence base (see Baer, 2003 for a recent review). Child and adolescent clinicians working in mental and physical health settings may also find mindfulness attractive and relevant. Mindfulness techniques can potentially teach greater self-awareness, increased impulse control, and decreased emotional reactivity to difficult events. Evidence from adults suggests that all of these effects can be achieved in the long term with the application of a relatively brief training package. Because of this, it may be particularly applicable to those with chronic conditions, or for children and adolescents who still have numerous developmental challenges ahead of them. In adult populations, mindfulness techniques are being taught in a wide range of clinical and non-clinical areas, including cancer, chronic pain, depression, obesity, and psychosis. However, the research literature on mindfulness in children and adolescents is minimal. Nonetheless, this paper aims to define mindfulness, highlight aspects of its evidence base, and then consider how it might be applied within a child or adolescent population.

Historical Context and Definition

Mindfulness can broadly be defined as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, pp.4). Ideally, mindful behaviour involves an individual being fully in contact with what is taking place in the present moment, both in the external world and in terms of their responses to it. Thus, if an individual were walking to school ‘mindfully’, they would be aware of their feet hitting the floor, the feeling of their bag on their shoulder and perhaps the mild tension associated

with approaching the school gates. Specifically, they would favour this awareness over being lost in worry about future exams, or trying to cheer themselves up with thoughts of an upcoming holiday. The hope is that when individuals deliberately stay in the present moment, they can respond to current events with a full awareness of their automatic tendencies, but can make choices that are not necessarily constrained by these. A greater non-judgemental awareness of one's own impulses and thought patterns should result in a decreased emotional reactivity and vulnerability.

Mindfulness techniques originate in Buddhist traditions (see Rosenberg, 1999 or Thera, 1962). However, the skills themselves are now taught without reference to their religious roots and the field is now regarded as a legitimate target of western scientific and clinical enquiry (Hayes & Wilson, 2003). Researchers have already attempted to specify the core processes underlying mindfulness. Bishop et al. (2004) proposed two key aspects: (1) present moment awareness and (2) the non-judgemental and dispassionate quality of this awareness. One core assumption behind mindfulness, shared with cognitive science and most psychological therapies, is that we are often relatively unaware of our ingrained behavioural habits and consequently move through our lives on something akin to partial automatic pilot (Kabat-Zinn, 1990, Chapter 1; McCracken, 2005, pp.77). Living in this 'mindless' way, we often behave automatically and remain unaware of the influences that are contributing to our actions. These automatic propensities can contribute substantially to suffering in general and to the maintenance of specific clinical problems. It is suggested that the ability to maintain a more mindful perspective on a day-to-day basis, even when under pressure, can result in more flexible, adaptive behaviour.

Evidence for the utility of mindfulness interventions

The vast majority of research that attests to the usefulness of mindfulness has been carried out in adult populations. Baer (2003) performed a meta-analysis on 21 adult mindfulness studies of adequate quality. Clinical conditions included chronic pain, anxiety and depression. The analysis indicated a large mean post treatment effect size (Cohen's d of 0.74, $SD=0.39$) and a medium effect size at follow-up (0.59, $SD=0.41$). It should be noted that the majority of these studies were prospective treatment evaluations, rather than randomised controlled trials (RCTs) and the findings need to be supplemented with more studies in general, and more RCTs in particular. However, Baer (2003) concludes that mindfulness-based interventions "may bring participants with mild to moderate psychological distress into or close to the normal range" (pp.137). Grossman, Niemann, Schmidt and Walach (2004) reviewed 64 studies but found that only 20 met criteria for methodological adequacy. Again, the studies were of both mental and physical health conditions, including coronary artery disease and psychiatric patients. Their meta-analysis found consistent improvement and relatively strong effect sizes across scales measuring aspects of mental health (e.g. depression, anxiety, coping style) and similar improvements on measures of physical well-being (e.g. medical symptoms, sensory pain, physical impairment, and functional quality-of-life estimates). Although again derived from a relatively small number of studies, the authors conclude that mindfulness may help a broad range of individuals to cope with both clinical and non-clinical problems.

Although the preliminary evidence for mindfulness in adult populations is relatively strong, the same cannot currently be said in respect of children and adolescents. Semple, Lee and Miller (2006) are among many who state that although "early indications are that mindfulness in children is acceptable and feasible" research in this area "has barely begun" (pp.164). In June 2006 we conducted an electronic search in the following

databases: BioMed Central, JSTOR, Ingenta Journals, PsychArticles, PsychInfo, PubMed, Science Direct, and Wiley Interscience. Records were searched for the occurrence of the keyword 'mindfulness' in conjunction with any of the following terms: children, adolescents, young-, young people. Any papers found were also inspected for further references.

Though the search produced numerous potential hits, a review of the titles and abstracts found only a tiny proportion of these to be relevant. In June 2006, some studies only provide supportive anecdotal data, while a few others describe limited but more rigorous individual or group case studies. Even in these instances, studies tend to be performed without recourse to formal or validated outcome measures (e.g. Ott, 2002; Wall, 2005). In the few cases where more formal measures were used, interventions often used non-clinical populations (e.g. Semple, Reid & Miller, 2005). The limited examples of research which employed stronger research methodologies (e.g. Semple, Lee & Miller, 2006) produced ambiguous results, which may be accounted for by low subject numbers. It is worth noting that although the adult literature contains a number of mindfulness measures, only the Child and Adolescent Mindfulness Measure (CAMM - Greco, Dew & Baer, 2005; adapted from the Kentucky Inventory of Mindfulness Skills, KIMS - Baer, Smith, & Allen, 2004) has been normed or adapted for use within child and adolescent populations.

This above should not be taken to indicate that mindfulness interventions have not been included in more rigorous child and adolescent research. However, when this has taken place mindfulness tends to be just one part of a wider treatment approach (e.g. Bootzin & Stevens, 2005; Miller, 2000). Accordingly, as other treatment strategies are used, it is very difficult to ascertain the relative contribution of mindfulness (Baer, 2003). Finally, other research has also taken place that has taught mindfulness to child mental health teams, and to parents of children with clinical problems, but not to the child itself (e.g. Singh, Wechsler, Curtis & Sabaawi, 2002; Singh et al, 2006).

Despite the current lack of research, there is considerable evidence that mindfulness is potentially teachable to child and adolescent populations. The Garrison Institute, a non-profit organisation located in New York, investigated mindfulness use within the K-12 range (Kinder garden to 12th grade; ages approximately 5 – 18; Schoeberlein & Koffler 2005). Collecting data from mainly within the USA, they found over 18 school and community based centres with established mindfulness programs, and many more which used elements of mindfulness as part of wider social and educational programmes. Though none of centres currently report empirical data, the report notes general outcomes including increased self awareness and self reflection, as well as increased emotional intelligence and social skills (Schoeberlein & Koffler 2005, p3). It is likely that many of these centres teach mindfulness in a way that takes the developmental stage of the child into account. Thus, we consider some developmental adaptations below.

Differences between adults and non-adult populations

Developmentally, it has long been argued that it is unhelpful to assume that children are “little adults”. Indeed Semple, Lee and Miller (2006) highlight a number of areas where differences may occur - for example in terms of attentional, cognitive and interpersonal functioning. Accordingly, it is clear that the teaching of mindfulness to children and adolescents needs to be developmentally appropriate (e.g. Jha, 2005; Ott, 2002). However, it is unclear exactly what stage needs to have been reached before mindfulness practice can begin. Those writers who refer to a Piagetian framework (e.g. Wagner, Rathus and Miller, 2006; Wall, 2005) suggest it may be necessary for participants to have attained the stage of “formal operations”, where abstract and hypothetical reasoning is

possible (i.e. from around the of 12). However, those who treat children using a CBT perspective (e.g. Verduyn, 2000) have found that clinically useful work is possible within what Piaget referred to as the “concrete operations” stage (approximately 7-12 years). CBT work in child populations require self-awareness, the modification of habitual behavioural tendencies, and often utilises metaphors which enable abstract ideas to be described and understood in concrete terms (Stallard, 2002). As mindfulness teaching requires and uses similar things, there is reason to believe that useful work maybe carried out within this younger age range. It is likely that researchers will have to establish the lower age limit for teaching mindfulness empirically. Before that has taken place, rather than imposing an unevidenced cut-off point, it maybe more practical to use standard adult practices as a template from which modifications and adaptations can be made as necessary. This said, it is worth noting the ages of subjects in research which has already been published: 7 and 8 (Semple, Reid & Miller, 2005), 7-9 (Linden, 1973), 9 (Ott, 2002), 9-12 (Semple, Lee and Miller, 2006), 11-13 (Wall, 2005), and 14-19 (Miller, 2000).

The modifications to practice recommended below come from either the existing limited child literature or from our clinical experience. Our work involves teaching mindfulness to adolescents as part of an intensive, residential group based treatment for chronic pain. Before discussing the modifications themselves, the article will first outline some of the more popular adult practices.

Varieties of practice

Mindfulness practices, in the adult arena, come in a variety of different forms. Most involve focusing non-judgemental attention on moment-to-moment private experiences, such as the breath, thoughts, physical sensations, or on other external aspects of the environment such as sounds. The purpose of these practices is not to singly focus on the target of the exercise to the exclusion of other stimuli. Instead, it is hoped that the individual will become more aware of both the object of the exercise and everything else that is going on in the present moment, responding to changes in both in as non-judgemental a way as possible. Precise details of these practices can be accessed elsewhere (e.g. Kabat-Zinn, 1990; Segal, Williams, & Teasdale, 2002) and only a brief overview of the most frequently used practices will be provided below. The following descriptions amount to only the briefest summary of the structure of practices, and should not be considered adequate description of the process as a whole.

Mindfulness of breath

In this practice, individuals are asked to sit still with their eyes shut and locate the physical sensation of breathing in their bodies. They select one location at which to follow this sensation, for example, the nostrils or stomach. The intent of the practice is to direct one's attention to noticing this sensation, purposefully, for a sustained period. It is anticipated that the individual's mind will wander; when this occurs, the instruction is to note the source of the distraction (e.g. external noise, thought), avoid becoming unnecessarily caught up in it and to redirect attention back to the breath without anger or judgement. Practitioners consistently find that this both trains attention and allows practice in dealing

with a range of different events (distracting thoughts, feelings, physical discomfort, urges to move).

Body scan

This practice emphasises awareness of current physical sensations. Attention is moved systematically through the body in a sequence similar to standard progressive muscular relaxation. However, the aim of the exercise is to direct non-judgemental attention to each part of the body rather than to deliberately promote relaxation.

Walking mindfulness

It has always been acknowledged that mindfulness must be generalised in order to have any benefit to a person's life. Thus, individuals are encouraged to go for a walk, with the intention of closely paying attention to all aspects of this process rather than just seeing walking as a means to arriving somewhere else. Individuals are invited to focus on the body (e.g. the physical sensations of a foot hitting the floor) whilst staying open to other events (e.g. changes in temperature, light, sights). Instructions are given to avoid 'chatting' to others, and it is also anticipated that events outside (e.g. other people being slow or impolite) will provide valuable practice in noticing and reacting mindfully to thoughts and feelings.

Case vignette: Jack's response to mindfulness training

Jack was a burly 15 year-old referred for treatment due to severe, intractable back pain which followed a fall. He tended to oscillate between being inactive and fearful of his pain, and being vigorous and attempting (over ambitiously) to 'push through it'. He and his family felt that Jack had become much more angry when in pain, and feared that he would lash out if someone said the wrong thing; this led to him avoiding some social situations.

Jack was introduced to the daily practice of mindfulness as part of an intensive residential pain management programme. He first learned to sit still whilst experiencing itching or muscles twitching in his back. He responded well to the metaphor of 'surfing' sensations like one would 'surf' a wave (rather than fighting it). With sustained practice, he discovered that the sensation that he labelled 'pain' was actually a bundle of sensations including fears, frustrations and urges to move or avoid. Insight into this enabled Jack to respond more wisely when the pain came up, and increased his emotional awareness and behavioural flexibility. Eventually he was able to see his angry thoughts about hitting people as 'just thoughts', and his newfound ability to 'surf' urges reassured him that he could be around others without doing anything impulsive. When asked about these situations at the end of the programme, he laughed and said, "I know I can bring the puppy back" [see 'Useful metaphors' below].

Modifying mindfulness for children and adolescent populations

Whilst all of the practices described above are valuable for a younger population, it is useful to consider modifications that may help increase both relevance and engagement.

Greater explanation and rationale

Mindfulness practices with adults emphasise experiential learning and often encourage people to start experimenting without much discussion. We find that groups of adolescents require more explanation and rationale if they are to engage fully. This is understandable as many people, both child and adult, struggle to see a connection between sitting in a room with their eyes shut and techniques that could be useful in their life more generally. However, simple rationales are easily given. Examples range from mundane events (e.g. getting to the end of a meal without having been aware of the food you have eaten) to

more challenging behavioural situations (e.g. suddenly being in the midst of an argument without knowing exactly how it started or why you are shouting back). Most young people have experienced the dawning of physical self-awareness after a period of distraction – for example, suddenly realising that you are exhausted, or need the toilet. These examples can be used to humorously draw out the unskilful consequences of ‘mindlessness’. Other metaphors serve to explain the connection between formal practice and pressured life situations. As a group, we discuss the fact that football players practice taking penalties. When this practice takes place, there is no game in progress, no crowd, no other team on the pitch, perhaps not even a goalie. The players are purposefully focusing on the penalty, in isolation, in order to perform better when they come to do it for real, under pressure. The discussion then extends the analogy to mindfulness practice.

Use of different practices

It is useful to emphasise the everyday generalisability of mindfulness from the beginning of treatment. To this end, standard practices are supplemented with theoretically consistent approaches to a range of activities, from eating to using a mobile phone. For example, a standard mindfulness practice (not described above) involves mindfulness of sounds. Whilst this is a useful practice itself, researchers working with children and adolescents have developed a ‘sounds’ practice specifically for this age group (e.g. Semple, Lee & Miller, 2006; Wagner et al, 2006). Here, they play extracts from different genres of music. This prompts different private experiences and as such provides a rich collection of material for individuals to get caught up in or to respond mindfully too. As well as using the modality of sound, some practices have used the sensation of touch (e.g. Semple, Lee & Miller, 2006).

Other practices intentionally take place outside of the classroom. As noted above, a walking practice can usefully bridge the gap between formal practice and applying mindfulness in everyday life (Kabat-Zinn, 1990, Chapter 7). Participants can also be encouraged to practice mindfulness during everyday activities like eating (Hayes & Smith, 2005), getting dressed, brushing teeth, and making the bed (Semple, Lee & Miller, 2006). Semple, Lee and Miller (2006) also set homework for their children, and encourage diary keeping (as does Wagner et al, 2006). Whether homework is set formally, or not, the integration of mindfulness skills into everyday life is something that is vital if it is to prove useful to the individual.

In our program, we sometimes use the idea of “mindful texting”. Here participants are encouraged to be mindful when they receive text messages on their mobile phones. The natural and automatic reaction when the phone sounds is to reach out and check the phone. At the same time, the mind is likely to be alive with thoughts such as “Who is it?”, “I wonder what they want?”, etc. Raising awareness that all this takes place automatically provides an opportunity for individuals to do something different. For example they can notice the thoughts and the physical urges to reach for the phone, and at the same time choose not to respond in such an automatic way: i.e. to check the phone eventually, but mindfully and in time. Most mobile phones can also be set to provide alarms that can be used as a ten-minute mindfulness ‘prompt’.

We also find that that the notion of “checking in” provides an important bridge between mindful practice and being more mindful in everyday life. Checking in refers to briefly, but deliberately noticing what is currently taking place in the present moment in terms of thoughts, feelings, body sensations and behaviour. The phrase can be introduced and

encouraged during mindfulness practices with additional instructions to actively try to 'check in' on as many occasions as possible during daily life.

Useful Metaphors

Other metaphors can be useful to help explain the mental posture required. For example, it is inevitable that the mind will wander from its intended point of focus during practices. To help explain a useful response to this, we present the 'puppy' metaphor (Kornfield, 2003; Chapter 5). This revolves around trying to teach a young puppy to sit still. Though it may sit for a few seconds, it will soon get distracted and run off. Groups tend to agree that this is to be expected and it would be unfair to be cross with the puppy. Instead, it makes sense to notice where the puppy has gone, gently bring it back, and try to get it to sit down again. Although the puppy is likely to run away, repeatedly, perhaps the most skilful response is just to notice this, bringing it back each time without anger and judgement as often as is needed. As expected, a similar response is encouraged when faced with wandering attention during mindfulness practices themselves.

Other researchers also use metaphors in their work. Greco, Blackledge, Coyne and Enreheich (2005) suggest that children try to view their private experiences within a continuous stream of bubbles. Thoughts, feelings and emotions are placed within a bubble and noticed floating away. They note that the bubbles will burst if individuals grab at, hold onto, or try to push them away. Another analogy used by Greco et al (2005) involves a scientist who is observing an amoeba under a microscope. As well as highlighting the careful level of observation that is taking place, they note that a healthy distance still remains between the scientist and the amoeba. Thus, despite the importance of the subject matter, observation can still take place with a detached curiosity.

Using variety and repetition

A balance needs to be struck between delivering practices of sufficient variety and repeating practices so that skills can be developed. Repetitions of the same postures from session to session provide the opportunity to repeatedly encounter similar private experiences and, hopefully, respond differently to them. Conversely, only ever doing one type of practice (e.g. breathing) can appear sterile and boring, creating problems with engagement. Increasing the variety of practice may also increase the likelihood that mindfulness skills can be generalised from the classroom to real world situations. Although balancing variety and repetition is an issue with all mindfulness treatment, we have found that greater variety consistently sustains interest and engagement in younger people.

Length of Practice

The time spent doing actual mindfulness practice varies within different adult approaches (Roemer & Orsillo, 2003), commonly ranging between 20 to 45 minutes. A cursory glance at the child literature indicates that much shorter practices are used. Semple, Lee and Miller (2006) use practices of around 3 and 5 minutes in length, while Wagner et al (2006) reports using practices of between 1 and 5 minutes. Though it is clear that modification may be warranted, it is unclear how long practices need to be for them to be effective. Longer practices allow young people to experiment with accepting discomfort, as well as developing a less impulsive relationship with urges to move and fidget. It is also often true that with the passage of time 'the mud settles' and individuals develop a more mindful state of concentration. In our experience, adolescents with chronic pain can certainly engage in practices of at least 10 minutes, after an initial training phase.

Parents

When teaching mindfulness to children or adolescents, we find it is important to engage parents or carers as well. We would suggest that, if possible, they should be involved in the practices themselves. In this way they can understand, at an experiential level, what mindfulness involves and how it might be useful. Wagner et al (2006) support this suggesting that parental participation can help ameliorate their own concerns and can ultimately allow them to help reinforce and model mindful behaviour. Our clinical experience suggests that mindfulness may be an invaluable aid to effective parenting; however this important topic is beyond the scope of this paper (see Kabat-Zinn & Kabat-Zinn, 1997).

Groups

Although mindfulness can be taught individually, it is more often taught in a group setting. Groups can make mindfulness teaching more potent. For example, the effectiveness of post-practice discussion (highlighted above) can be increased when fellow group members share different experiences and comments. Semple, Lee and Miller (2006) also note the helpful way in which group members can learn with, teach and support each other. Wagner et al (2006) also reports the useful way in which group camaraderie develops within child and adolescent mindfulness groups. Conversely, if the practices or rationale seem stilted, boring, or irrelevant, engagement can be lost and this can rapidly transmit through the group. Finally, it is important to note that the format of group work must be experiential and not didactic. Although this is different to a typical school or college environment, this focus is regarded as a key aspect of mindfulness treatment.

Assessing progress and aiding skill development

Encouraging candid discussion

A vital part of teaching mindfulness is the discussion following practice where individuals are asked for feedback on their experiences. This is the point at which clinicians can assess the client's progress and provide feedback that can shape more mindful responding. It is essential to shape and maintain appropriate expectations in this phase. Young people must be encouraged to report freely, and the notion that there is a 'right answer' should be undermined. For example, we actively encourage candid reporting of boredom or frustration if that is what has been taking place during practice. This may seem odd as such responses would probably be punished in a comparable school context. However, if participants can speak freely, automatic experiences can be normalised and mindful responses can be encouraged even in response to boredom or frustration. It is often in these discussions that the connections between mindfulness practice and being more mindful generally are raised.

Signs of progress

Clinicians naturally struggle to observe whether mindful behaviour is actually taking place during practice (although reactive, 'mindless' fidgeting is much easier to see). Because of this, we must make inferences from an individual's post-practice feedback.

During the early stages of practice, it is encouraging if young people report an increased awareness of events and responses to them. For example, we would hope to hear a young person progress from reporting "I was a bit fidgety" to saying "I was fidgety, I felt a bit anxious and I kept thinking about what was going to happen when I got home". This increase in self-report hopefully reflects the development of greater moment-to-moment self-awareness. Clinicians should actively encourage this broad and descriptive reporting.

For example, in a pain management setting we encourage individuals to report the emotions and thoughts that accompany changes in pain sensations; while clinicians working with depressed clients might emphasise becoming aware of any physical manifestations of depression.

A change in the manner and style of an individual's feedback is also indicative of more mindful behaviour. In general, young people initially report being 'caught up' with their experiences (e.g. "I got bored and couldn't do it,"). As progress takes place, an increasing sense of 'observing' rather than 'reacting' to what was going on is reported (e.g. "I noticed that I was getting bored and wanting to stop, but did my best to carry on"). As above, clinicians should encourage this observing stance, perhaps by referring to salient metaphors described earlier.

In general, any response that embodies preserved awareness and increased perspective can usefully be encouraged. As they gain skill, young people might report their experiences with greater lightness and humour, being wryly surprised by their own responses and urges. Hopefully, they will display an increased ability to 'sit alongside' difficult experiences without having to react to them, and an increased sense of ease in the presence of pressure and difficulty. In the early stages of teaching the clinician might not be sure whether their group is moving in the right direction, but any response that seems to capture these qualities should be encouraged. As practice progresses, feedback which confirms that more mindful behaviour is taking place should come not just from the practice sessions but, importantly, from real life situations.

Developing and maintaining the clinician's skills: the issue of personal practice

Experts in this field advise that individuals involved in the teaching of mindfulness should regularly assess their own level of training, supervision and continuing personal practice. Kabat-Zinn (2003) states that mindfulness "cannot be taught to others in an authentic way without the instructor practicing it in his or her own life" (pp.149). Although Dimidjian and Linehan (2003) contend that the question of exactly how people need to be trained is ultimately an empirical question, it seems likely that attempting to use mindfulness techniques in the absence of personal experience will lead to incompetent interventions.

In our view, some experience of mindfulness practice is essential, not because it confers some special quality to the instructor, but because of the non-verbal nature of the skill. To draw a parallel, it would be reasonable to have doubts about a swimming instructor who had read lots of books about swimming but could not actually swim. Clinicians who have personal experience of mindfulness seem more likely to be able to give clear advice and feedback, and to correct ineffective effort on the patient's part. On our unit, formal and informal mindfulness practices are taught by a number of clinicians, all with some personal experience of mindfulness, but most do not undertake formal mindfulness practices regularly. Most of our colleagues agree that exposure to mindfulness techniques has led to an enhancement of self-awareness that is highly relevant to the clinical situation (although this does not necessarily increase the clinician's sense of personal comfort).

Examples of training opportunities that exist in the UK include the Centre for Mindfulness Research and Practice at Bangor University

(<http://www.bangor.ac.uk/mindfulness/events.html>) and the Breathworks Project

(<http://www.breathworks-mindfulness.co.uk/training.asp>).

Similarities with Relaxation / Meditation / Cognitive Therapy

Having described various approaches to mindfulness with children and adolescents, some clinicians may feel that mindfulness is very similar to established approaches that they already use. However, it is important to separate mindfulness from other techniques, such as relaxation or transcendental meditation that may, on the surface, seem similar. Whilst these may be valid techniques in their own settings, it is necessary to be clear that they may proceed from different assumptions and use different methods. Below, we consider some useful contrasts.

Relaxation

Relaxation exercises come in a variety of formats such as progressive muscular relaxation (Bernstein & Borkovec, 1973; Jacobson, 1938; Ollendick & Cemy, 1981), guided imagery (Zahourek, 1988), and autogenic relaxation (McGrath, 2003). Despite their differences, the general purpose of a relaxation exercise is to induce a state of relaxation. This differs to mindfulness whose purpose is to cultivate non-judgemental awareness in the present moment, even if what is currently taking place is far from relaxing. Thus, one can be mindful of tension and agitation, and still observe it non-judgementally. It is not necessary to calm these states down, relax them away, or distract oneself from them. Indeed, there is an extensive literature on the counterproductive effects of trying to 'clear one's mind' and relax under pressure (e.g. Wenzlaff & Wegner, 2000).

Meditation

It is understandable that mindfulness techniques are sometimes referred to as 'meditation', as this terminology reflects its religious heritage. However, the word 'meditation' is non-

specific, and does not specify precise techniques any more than the word 'sport' indicates a particular pursuit. While meditation could be used describe an approach like mindfulness, it might also be used to describe practices such as transcendental meditation which aims to restrict awareness to a single stimulus such as a word, mantra or object (e.g. a candle; Rathus, 1997). In transcendental meditation an explicit attempt is made to exclude other distractions from attention. The individual becomes totally absorbed by the focus of the meditation and this absorption is said to induce a state of tranquillity or bliss. This differs to mindfulness where the promotion of greater awareness and acceptance of the moment-to-moment flow of private experiences is central, even if the events which take place seem 'off-task' or peripheral. Reviews of transcendental approaches are available (e.g.; Delmonte, 1985; Smith, 1975).

Cognitive Therapy

Although both cognitive therapy and mindfulness deal with thoughts, feelings, physical sensations and urges to act, they may approach them in different ways. The precise contrasts are beyond this discussion, and are well reviewed in Segal et al. (2002). Briefly however, the cognitive model assumes that "realistic evaluation and modification of thinking" is necessary to improve behaviour (Beck, 1995, pp.1). In this way, cognitive approaches tend to prioritise changing the content of private experiences like thoughts. Mindfulness approaches emphasise an awareness of thinking that is similar to that promoted in cognitive thought-record techniques. However, instead of changing problematic thoughts, it is thought to be sufficient to recognise them as transient mental events that can potentially be problematic, but do not have to be. Instead of requiring change, clear observation and the 'surfing' of impulses can render private experiences harmless, though they may still be just as unpleasant. Experienced clinicians agree that although this difference may seem subtle, it has a substantial impact on clinical practice.

Conclusion

Mindfulness approaches offer a potentially powerful set of interventions for clinicians working in a wide range of child and adolescent areas. It is hoped that this paper has helpfully outlined this burgeoning area. Clinicians entering this field can focus on gaining essential personal experience of the techniques and on clarifying the distinctions between mindfulness and the other apparently similar approaches described above. Future research is essential to clarify the efficacy of mindfulness with children and adolescents, answering ongoing questions about the requisite developmental stage for effective use.

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