The following words are from instructions given as part of a class for those learning to practice mindfulness meditation.

As you sit here, noticing the sensations of your breath moving in and out of your body.

Breath by breath, moment by moment.

If you find that your attention wanders, this is okay.

It is what minds do.

So when you find your mind has wandered away from the breath, to daydreaming or planning, remembering or worrying—wherever—simply noting where it went, and, without giving yourself a hard time, escorting the mind back to the breath; to the next in-breath, or out-breath.

What is mindfulness and what potential might it have for parents preparing for childbirth? This article focuses on three areas: managing pain during pregnancy and labour; reducing risk of perinatal depression; and increasing ‘availability’ of attention for the infant. The encouraging evidence to date suggests the possibility that mindfulness has an important contribution to make, both for reducing vulnerability in high-risk groups and as a universal intervention.

What is mindfulness?

Mindfulness is the awareness that emerges when we learn to pay deliberate and open-hearted attention to the moment-by-moment unfolding of the external and internal world (Williams et al, 2007). It is cultivated through a form of mind and body training using guided meditation and yoga practices. In eight or nine weekly classes, and by practising with CDs at home during the week, participants learn how to cultivate moment-by-moment, non-judgemental awareness of thoughts, feelings and body sensations as they come and go.

How has it been used?

Mindfulness-based approaches in health care began in the USA with Kabat-Zinn's pioneering research into mindfulness-based stress reduction (MBSR), an eight-session intervention in the form of a hospital-based course, which was shown to be enormously beneficial for patients with physical problems such as chronic pain, hypertension and heart disease, as well as for psychological problems such as anxiety and stress (Kabat-Zinn, 1990).

Using Kabat-Zinn's work as a starting point, a group of psychologists combined MBSR with cognitive therapy, creating mindfulness-based cognitive therapy (MBCT) and researched its effect on relapse rate of depression, with very positive results. MBCT is now being trialled in Oxford to treat conditions such as health anxiety, bipolar disorder and to prevent suicidal depression.

At the same time, author Nancy Bardacke used MBSR as a foundation to develop antenatal classes for both parents, with the aim of reversing the negative impact that high stress and fear have on maternal and neonatal outcomes, and produced mindfulness-based childbirth and parenting (MBCP) (Duncan and Bardacke, 2009a). A related approach focusing on the use of mindfulness for mothers only has confirmed the potential for mindfulness to have a generalized positive impact on wellbeing, decreasing anxiety, negative affect and stress (Vieten and Astin, 2008).

Given the increased interest in mindfulness it is timely to take stock and consider three areas where clinical and research effort may be focused: pain in pregnancy and labour; prevention of perinatal depression, and developing mindful parenting.

Abstract

Mindfulness meditation is increasingly being used as a way of managing pain, reducing stress and anxiety and, in the form of mindfulness-based cognitive therapy (MBCT), as a way of reducing the risk of recurrence in depression (NICE, 2004). This article considers its potential for parents preparing for childbirth focusing on three areas: managing pain during pregnancy and labour; reducing risk of perinatal depression; and increasing ‘availability’ of attention for the infant. The encouraging evidence to date suggests the possibility that mindfulness has an important contribution to make, both for reducing vulnerability in high-risk groups and as a universal intervention.
When your body hurts: a mindful approach to physical pain

The potential benefits of mindfulness for pain is suggested by the research showing that it is helpful for people suffering from chronic pain, many of whom had not found pain relief in medication (Kabat-Zinn et al, 1986). Pain associated with pregnancy and childbirth presents similar challenges.

Pain in pregnancy

In pregnancy, paracetamol is the only recommended pharmacological pain relief available to women, so the options are limited in the same way as they are for those with more chronic conditions. In their study of the experience of pain in women suffering from pelvic girdle pain, Wellock and Crichton (2007) found a diversity of practices but little hope. Some women took only paracetamol for the pain but found it generally ineffective. Other women were prescribed stronger medication but didn’t take it owing to concern for fetal wellbeing; and still others took the stronger medication but found it unequal to the task of relieving their pain. There is clearly a critical need for more research into non-pharmacological methods of pain management for such conditions that affect pregnant women.

A further noteworthy point about this study was the women’s feelings of not being able to cope, and of losing control. These are very similar to the reactions of those who suffer chronic pain in Kabat-Zinn’s studies (1986; 1990). By talking of pain relief, expectations may be set up which feed into chronic disappointment and a sense of increased helplessness.

Mindfulness takes a different approach. It does not aim to remove, reduce or ‘wall off’ pain. Rather it aims to change a person’s relationship to the pain sensations so that the experience of the pain is less all-absorbing and less likely to trigger a cascade of negative emotions that make things worse. Given the close links between physical and emotional pain (Vastag, 2003) this ‘uncoupling’ of the physical sensations from thoughts about them is a critical point of potential freedom. Pregnant women who undergo mindfulness training report that when they become aware of and learn to relate differently to the negative thoughts that surround their intense physical sensations, they cease to be overwhelmed by feeling unable to cope with the pain, and less fearful of losing control (Duncan and Bardacke, 2009b).

Labour pains

The potential benefits of mindfulness training extend to childbirth itself. Feelings of being overwhelmed by pain, fear of not being able to cope or of losing control are commonly reported in labour. Despite this, there are women who somehow seem to manage their pain even without the ‘pain relief’ that is offered. Such women seem to have more positive, empowering experiences of childbirth than those who resist labour pains, responses that have been extensively documented by Walsh and by Leap in their explorations of women’s and midwives’ perceptions of labour. These reports of physiological ‘normal’ childbirth tend to describe ‘going with the flow’, ‘emotionally transformative’, ‘being present’, being ‘in the zone’ (Walsh, 2007; Walsh, 2008; Walsh and Byrom, 2009), ‘working with pain’, ‘pain is your friend instead of your enemy’ (Leap, 2008). These observations confirm that there are important individual differences in reactions to labour that naturally occur.

Relating differently to pain

The observations of Walsh’s studies fuse extraordinarily well with the practice of mindfulness. Because these meditation practices help participants to cultivate a sense of being in direct touch with the present moment and to be non-judgmentally aware of bodily sensations without having to necessarily react or brace against them with tension and anxiety, it suggests that a training programme may have the potential to shift perspectives in fundamental ways. In particular, it might allow women to steer the middle path between being more willing to experience the intense sensations of childbirth but not feeling judgmental or a failure if they choose pain relief to help them with their experience.

But can these ways of dealing with pain be taught in advance? Surely, it might be objected, nothing can prepare for the intense sensations that accompany labour. If this were true then preparatory work might be of little help. However, it has been shown that coping strategies that women have made use of in the past tend to be the coping strategies they resort to during labour to deal with the intensity of the pain (Escott et al, 2004). This suggests that women can be trained in mindfulness during pregnancy to deal with ongoing pain and

**Case Study 1: A mindful approach to physical pain**

Elizabeth was a healthy 29-year-old having her first baby, who signed up in her third trimester for the Mindfulness-Based Childbirth and Parenting (MBCP) course because she was ‘very worried’ about her ability to cope with childbirth pain. Her pregnancy had been uneventful until 36 weeks when, after a day of lifting heavy boxes, Elizabeth experienced severe back pain.

‘The pain was so bad I could barely walk. I’ve never had trouble with back pain before so it was a total surprise. Luckily I had my mindfulness practice from participating in MBCP, so I focused intensively on the breath and used very slow meditative walking to be softer with the urge to tighten up and resist every step. I also watched how my mind was creating all sorts of fearful stories about the future—like “oh no, what if I have back labour or I can’t move during labour?” But I knew how to keep coming back to the breath and telling myself to just stay in the moment. It really helped.’

Elizabeth’s back pain resolved, however, she did indeed develop back labour. She reported using her mindfulness practice to manage the pain of that experience as well.

‘In a funny way, practising mindfulness with the back pain I had before labour was a gift. When the back labour happened I actually felt confident I could handle it. And I did! Just goes to show that you never know about the future and mindfulness really helps with accepting things as they are when they happen.’
discomfort in new ways, and that they would find themselves making use of these techniques for positive pain management in labour (Case Study 1). If this were the case, a cascade of interventions could be potentially avoided with the result being more positive empowering experiences for women and their partners, greater job satisfaction for midwives, and fewer expensive labour interventions for the budget-holders.

When your mind hurts: a mindful approach to mental pain

The available research suggests that depression is one of the most common complications of the perinatal period (US Department of Health and Human Services, 2005). A meta-analysis of 59 studies showed the prevalence rate of postpartum depression (PPD) is around 13% (O’Hara, 1996). Risk factors for PPD are both psychological and social: lack of social support (which doubles the prevalence rate (Cooper and Murray, 1998)); marital conflict; stressful life events; history of adversity and abuse (O’Hara, 1997). The motivation of finding an effective way to prevent perinatal depression is that there are important downstream consequences of such depression (Murray et al, 1996a; 1996b; Stein et al, 2001; 2008):

- Further marital problems and reduced social support
- Poor adherence to perinatal care
- Increased use of alcohol and substances
- Increased risk of preterm labour
- Low birth weight
- Poor biological and behavioral outcomes for offspring that persist throughout early childhood
- Interference with parenting.

There is also increased risk of future depression—after one instance of PPD women become twice as likely to experience new episodes in the next five years (Cooper, 1995).

What are the options?

The most common way to tackle depression when it occurs outside pregnancy is antidepressant medication (ADM). However, many women do not wish to take antidepressants because of the perceived risks, even for those medications that are recommended as ‘safe’. For example, the British National Formulary (BNF, 2009) states that sertraline (a common antidepressant of choice in pregnancy and while breastfeeding) is present in milk when used by a breastfeeding woman, ‘but not known to be harmful in short-term use’. For tricyclic antidepressants (e.g. amitriptyline, and including related drugs such as mianserin and trazodone) doses are ‘too small to be harmful but most manufacturers advise avoid; accumulation of doxepin metabolite may cause sedation and respiratory depression’.

Despite these misgivings, if antidepressants could actually be shown to prevent PPD in women who are known to be vulnerable but are not yet showing symptoms, this would suggest that the risks might be worth taking. In their Cochrane review, Howard et al (2005) found only two studies using ADMs as preventative interventions. Both examined the potential efficacy of starting ADMs for high-risk women immediately after birth but before any PPD symptoms. One study examined nortriptyline, and found no effect. The second examined sertraline; it found some effect but of 14 patients allocated to receive the medication, only 9 completed the trial. Of these 9, 2 became depressed as the drug tapered, 2 were withdrawn rapidly because of headache, and 1 was withdrawn because of hypomania. Furthermore, 50% experienced dizziness (vs 13% in placebo) and 100% experienced drowsiness (vs 50% placebo). Howard, et al’s conclusions are not hopeful:

‘the evidence does not allow us to make any recommendations about the role of antidepressants in preventing postpartum depression’ (Howard et al, 2005: 6).

Are psychological approaches more effective?

A recent review of nine studies (in total n=956) in which psychosocial approaches were used for treating depression once it had occurred concluded that they work well to reduce depression in the short term (Dennis and Hodnett, 2007). However, these studies are much more pessimistic about longer term outcomes: such treatment does not appear to have ‘downstream’ beneficial effects for the mother–child relationship and for child development outcomes.

There are similar reasons to be pessimistic about using such approaches to prevent later depression. Those studies that have offered psychosocial treatment to high-risk people showing some symptoms but not yet meeting criteria for a diagnosable disorder (O’Hara et al, 2000; Cooper et al, 2003) show that they improve maternal mood and anxiety, but the effect is no longer present at nine months postpartum (Cooper et al, 2003). Further, there is no reduced risk of depression in the subsequent five years (Cooper et al, 2003) and no effect on the child’s development in these five years (Murray et al, 2003). The conclusion has been that such targeted psycho-educational group interventions in heterogeneous ‘at risk’ populations are of little or no value (Austin, 2003). Psychosocial and psychological interventions compared with usual care provided antenatally do not reduce the risk of postpartum depression (Dennis and Creedy, 2004).

Could the mindfulness approach help?

Previous studies have used interventions that are limited because they are modifications of existing treatments for acute depression. An approach is required that is specifically designed to meet the needs of those who are at risk but not showing symptoms. Mindfulness-based cognitive therapy offers just such an approach: it is based on a clear model of ongoing risk, and teaches skills that explicitly address that risk (Segal et al, 2002).

Mindfulness training halves the risk of future relapse for people who are known to be vulnerable (because they have had three or more previous episodes of depression in the past) but are not currently showing symptoms. Mindfulness-based cognitive therapy offers just such an approach: it is based on a clear model of ongoing risk, and teaches skills that explicitly address that risk (Segal et al, 2002).

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Case Study 2: A mindful approach to mental pain

Charlotte, a 26-year-old single woman living with her partner and unexpectedly pregnant, enrolled in mindfulness-based cognitive therapy (MBCT) because she was concerned that depression, which she had experienced since her teen years, would return with pregnancy or afterwards. She had previously been treated with antidepressants and had no experience with meditation. She eagerly attended all of the classes although she struggled with the home practices, experiencing sleepiness while listening to the guided meditations, sometimes finding it difficult to take time for the practices, and dealing with some scepticism from her family. In the mid-intervention assessment, she said that she was beginning to pay attention to how her behaviour and thoughts and emotions were interconnected. She had begun to recognize that she had a choice as to how to respond to stressors. In the seventh session, she identified some warning signs for her depression: a tendency to withdraw, to question her abilities and worthiness, and to have trouble sleeping. By the final session, she had developed a relapse prevention strategy that included reaching out for support even if she felt like withdrawing, getting out of the house with her baby or having some contact with another adult each day, maintaining physical activity, and sleeping when the baby slept in order to reduce potential fatigue. At the one month postpartum assessment, she reported having used the MBCT practices to cope with stressors ranging from worries that the baby was not getting enough milk with breastfeeding, difficulties that arose when her in-laws visited after the baby was born, and self-esteem challenges related to the pregnancy weight gain. She said that the practices allowed her to be attentive and responsive to her baby. This motivated her to continue her meditation practices.

Case Study 3: A mindful approach to parenting

Maxine, a 34-year-old pregnant with her second child, signed up for the mindfulness-based childbirth and parenting course (MBCP) because of fears about having a second baby:

‘I had a pretty easy delivery the first time so I’m not so scared about childbirth but I’m really worried about how I can be a mother of two. I feel that I am already stretched to my limit taking care of Christopher, my toddler. I get so frustrated and angry when he is upset and I don’t know what he needs. I come from a family with lots of anger and I worry that I’m making a family just like that.’

During the MBCP course, Maxine would often report to the class how she had used the mindfulness skills to help parenting Christopher, such as coming to the breath and just feeling the feelings of frustration when he resisted a nappy change or a bath:

‘Sometimes Christopher just needs me to slow down and be with him before we move on to a new activity. For the first time in my life I think I understand what patience feels like.’

When Maxine returned to the MBCP class reunion with her seven-week-old daughter Anna, she reported:

‘The mindfulness practice has been such a help. I’m much more calm and relaxed with having two children than I ever imagined I could be. It’s not always easy, but I give each one my full attention, one at a time, as best I can. And I think they feel that. I’m much less distracted with Anna than I ever was with Christopher when he was a baby. Breastfeeding is one of my main mindfulness practices now.’

When your mind is on auto-pilot: a mindful approach to parenting

There is an aspect of mindfulness training that might prove to be even more important than its effects on reducing pain and depression: its reduction of preoccupation. Many of us find ourselves beset by the pressures that preoccupy us much of the time, making us run on autopilot and getting stressed in a way that can lead to a chronic sense of dissatisfaction with the way things are going in our lives. Mindfulness gives more choices for how to see more clearly and deal more skilfully with these pressures.

Following mindfulness training, anecdotally people feel more able to concentrate, more engaged with life and less preoccupied with current concerns. They simply notice more

tined antidepressant medication to prevent recurrence of major depression in people who have had three or more prior episodes of depression (Kuyken et al, 2008).

Does it have similar preventative effects for women who are at risk? In the USA authors Sona Dimidjian (SD) and Sherryl Goodman (SG) are adapting MBCT for the prevention of perinatal depressive relapse and recurrence, based on the research on prevention of depression by Teasdale et al (2000) and benefiting from Duncan and Bardacke’s (2009) work. Funded by the National Institute of Mental Health they will soon be in a position to see whether the approach is effective. It is already clear that the approach is feasible to deliver and that many women describe it as helpful (Case Study 2).

The possibility that mindfulness classes might be available to both parents (as happens in Bardacke’s programme: www.mindfulbirthing.org) offers the chance for fathers to be protected from postpartum depression also, which is shown to be a problem and to affect later development of the child, independently of the mother’s depression (Ramshandani et al, 2008).
of the beauties and pleasures of moment to moment living. Such ‘re-engagement’ with life, moving ‘out of the head’ is potentially powerful because of the known importance of parent–child interaction which depends on the adult’s awareness of their child’s behaviour. Many studies have suggested that the early interaction between parents and their babies lays an important foundation for the child’s later social, emotional, and cognitive abilities (Murray, 1993; Stanley et al. 2004). The subtleties of such moment-by-moment interaction are critically affected by preoccupation in adult carers. Simply put, if the mother or father is wrapped up in their own concerns, they are not able to notice the momentary signals that their babies are pre-programmed to make, and that would have formed the basis of secure attachment and later cognitive development (Murray, 1993; Murray and Cooper, 2003).

Whether mindfulness training can help in this process is one of the big unanswered questions. Anecdotal evidence from case studies of people who have been through the mindfulness programme in California (Case Study 3) suggest that the parents spontaneously notice large differences in their ability to attend to their infant (Duncan and Bardacke, 2009a). There have been similar reports from women participating in the perinatal depressive relapse prevention programme of authors SD and SG in Colorado and Georgia, despite this not being the specific focus of the programme. It follows naturally from the day by day mindfulness practices in which participants have been engaging, out of which emerges a greater sense of being present for whatever comes up moment by moment. Planned empirical tests in the Dimidjian and Goodman labs in Colorado and Georgia, USA will indicate whether these suggestive findings hold up.

Conclusion

The aim of this article has been to highlight a potentially important development in the field of physical and mental health: the use of mindfulness-based approaches. Because mindfulness practices help participants to see more clearly the patterns of the mind, it helps both to halt the escalation of negative thinking that might compound pain or depressed mood, and deals with the tendency to be ‘on autopilot’. For parents this provides a great opportunity to dissolve the habitual tendency to be preoccupied with concerns that might deny the infant the attention he or she needs to thrive. Importantly for pregnant and breastfeeding women, mindfulness practices do not rely on medication. Given that the approach has been recommended by NICE for treatment of recurrent depression, it is suggested that the time is right to explore the wider potential of this approach in further studies that specifically address the needs of those who look to midwives and health visitors as their source of help and support.


Ramchandani PG, Stein A, O’Connor TG, Heron J, Murray L, Evans J (2008) Depression in men in the postnatal period and later child psycho-
Key Points

- Mindfulness meditation is effective for dealing with pain and for many stress-related problems.
- Mindfulness meditation is effective for the prevention of depression (NICE, 2004).
- Training in mindfulness has been developed into a programme for pregnant women and their partners.
- Research is showing its potential for dealing with labour pain, fear of childbirth and for enhancing attachment between parents and infants.
- Mindfulness may be a useful approach for helping vulnerable groups or as a universal public health measure.

Vastag B (2003) Scientists find connection in the brain between physical and emotional pain Journal of the American Medical Association 290: 2389–90