

Description

Mindfulness: an intervention to promote maternal and infant wellbeing

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Small pilot studies exploring pregnancy and mindfulness suggest this intervention is associated with lower levels of psychological distress, including less anxiety and depression (Duncan et al 2017). In non-pregnant populations there is a growing body of research demonstrating the positive effects of mindfulness on physiology, emotional wellness and mental cognition. Perinatal mood disorders during pregnancy increase the risk or labour complications and postnatal mood concerns and may interfere with attachment and child development (Muzik and Borovska 2011). Anxiety and stress during pregnancy have been linked with premature birth, low birth weight, and neonatal morbidity and mortality.

WHY MINDFULNESS MATTERS

Midwives play a crucial role in identifying women in need of mental health support. However, midwives are not mental health specialists. By encouraging parents to become more aware and present in their daily activities, we are taking a positive step towards physical and emotional wellbeing in pregnancy and parenting.

DEFINING MINDFULNESS

Although mindfulness has roots in Buddhism, it is a secular practice. The modern mindfulness movement was brought to a larger audience by Professor Jon Kabat-Zinn in the 1970s at the University of Massachusetts medical school. Kabat-Zinn defines mindfulness as ‘paying attention in a particular way: on purpose, in the present moment, and non-judgmentally’.

BRINGING MEDITATION DOWN FROM THE MOUNTAIN TOP

Portrayals of mindfulness in the media generally consist of cross-legged gurus sitting on a mountaintop in flowing robes in a state of blissed-out Zen (an unachievable ideal for most of the women in our care). Midwives are well positioned to dispel myths around mindfulness so this worthwhile practice is not an activity that parents believe is confined to mountain tops, but a way of being that can occur in even the most stressful circumstances. The practices of informal mindfulness (washing the dishes, eating mindfully, changing a nappy) are simple practices for parents who may not have access to formal instruction.

DIY BRAIN REMODELING

Neuroimaging studies demonstrate that intentional mental activity (mindfulness) physically changes brain structure in areas associated with positive mood, emotional resilience and executive functioning (the area responsible for decision making). Accelerated plasticity of the maternal brain due to the influence of hormones makes pregnancy a nine-month window of opportunity to improve brain health.

MATERNAL MENTAL HEALTH AND WELLBEING

Mindfulness may provide women with tools for 'stress-inoculation' in pregnancy. Research suggests that mindfulness may improve perceived stress not only in at-risk women, but also in healthy individuals (Beattie et al 2014). Vieten and Astin's (2008) research demonstrated a statistically significant decrease in anxiety and negative mood. The control group showed a significant increase in depressive symptoms. In Goodman et al's (2014) research, expectant mothers showed statistically and clinically significant improvements in anxiety, worry and depression, and significant increases in self-compassion and mindfulness.

- Mindfulness training in pregnancy may also provide women with a buffer to birth trauma.
- Mindfulness meditation reduces emotional reactivity to adverse events. In the US military, mindfulness training is used to reduce the impact of stress before and during deployment.
- Mindfulness is also associated with improved cardiac adaptation in pregnancy (Braeken et al 2016).

FEAR

It's clear in the research and anecdotal reports from midwives that fear of labour and birth is associated with increased obstetric interventions and poor emotional and psychological health for women (Toohill et al 2014).

Fear of childbirth continues to grow in the developed world due to the negative portrayal of birth in the media (Luce et al 2016). Of special interest to midwives is the effect of mindfulness on the reduction in activity in the amygdala (fear centre) (Taren et al 2013). Magnetic resonance imaging (MRI) scans demonstrate that that after an eight-week course of mindfulness practice, the brain's 'fight or flight' centre reduces in size. Pilot studies in pregnancy demonstrate a reduction in fear and stress being common with the practice of mindfulness (Duncan et al 2017; Byrne et al 2014).

INFANT HEALTH

Chronic maternal stress is known to be a contributor to preterm birth. A randomised controlled trial (RCT) from Thailand demonstrated a significant decrease in the onset of preterm labour in women who followed a hospital based meditation program (Sriboonpimsuay et al 2011).

PAIN

Mindfulness – an acceptance-based coping technique – differs from commonly taught techniques of pain avoidance or control in antenatal classes. A 2013 meta analysis on pain and mindfulness indicates that mindfulness may change pain perception, increase pain threshold and pain tolerance even more so than guided meditation (Reiner et al 2013). The reduction in pain experienced with mindfulness practice does not seem to be associated with an increase in endorphins but with the activation of specific parts of the brain (Zeidan et al 2016).

SELF-EFFICACY

According to Bandura (1994) self-efficacy is defined as the belief in one's ability to influence events that affect one's life, and control over the way these events are experienced. Low self-efficacy is associated with childbirth fear, increased

perception of pain in labour, and obstetric interventions.

Previous findings that low self-efficacy and high childbirth fear are linked to greater labour pain, stress and trauma suggest that the observed improvements in these variables have important implications for improving maternal mental health and associated child health outcomes (Byrne et al 2014). In Duncan et al's research (2017), participants showed greater childbirth self-efficacy and mindful body awareness, lower post-course depression symptoms that were maintained through postpartum follow-up, and a trend toward a lower rate of opioid analgesia use in labour.

Increased self-efficacy is also demonstrated in pilot studies focused on mindfulness and breastfeeding (Perez-Blasco et al 2013).

MINDFUL EATING IN PREGNANCY

Obesity is a growing concern for women and midwives. Obesity in pregnancy is associated with poorer maternal and perinatal outcomes and presents challenges in day-to-day clinical practice (Biro et al 2013). Postpartum retention of pregnancy weight gain is also a significant risk factor for later obesity in women (Rooney 2002).

In the USA, half of all first-time mothers are obese when entering pregnancy, putting these women at increased risk of gestational diabetes and hypertension, as well as potential birth complications. Mindful eating helps parents become more aware of hunger and satiety cues, understand how stress and emotions impact hunger, and learn to slow down and savour the taste and texture of food. Mindful eating programmes include developing a more positive relationship to food, stress awareness and weight management. Preliminary findings on the mother-infant pairs in the study suggest that those offspring born to the mothers who went through the Maternal Adiposity, Metabolism, and Stress Study (MAMAS) programme had healthier birth weights (Thomas et al 2014). Hutchinson et al (2017) suggest that improving mindfulness related to food consumption before and during pregnancy may provide a strategy to address excessive gestational weight gain.

LOOKING AHEAD

As midwives, we want to give families the healthiest start, physically and emotionally. Mindfulness is a skill that parents can use as a buffer to the common stresses of pregnancy and parenting while providing at-risk women with resources to cope with the additional challenges they may face.

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