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Mindfulness-Based Childbirth and Parenting (MBCP): Innovation in Birth Preparation to Support Healthy, Happy Families

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Decades of evidence shows that when mothers are anxious or depressed, suffering from chronic or acute stress, or experiencing relationship conflict, they are likely to face difficulty in parenting their children in an optimally sensitive and responsive way (Deater-Deckard, 2008). Further, experiences of maternal stress and anxiety in the prenatal period are likely to be detrimental to fetal development, as shown in animal studies (Van den Bergh et al., 2005) and suggested by human studies that show negative effects extending into childhood and adolescence (e.g., Betts et al., 2014, O'Connor et al., 2002). Critical epigenetic processes are begun in the intrauterine environment that may set the course for pathways of neural development (Fagiolini et al., 2009); thus children born to women with mood problems experience not only the disadvantage of a stressed mother who is less able to attune and care for them in the early days of their lives (Stein et al., 2012), but also face the potential lifelong impact of a disrupted prenatal context (Lupien et al., 2009). Additionally, postpartum depression among fathers is an issue that has long been under-recognized and undertreated (Paulson and Bazemore, 2010). Family well-being during pregnancy, or lack thereof, may be the key to understanding and optimizing both family and child developmental trajectories that have long-term implications for physical and mental health.

Childbirth education programmes are widely delivered throughout the industrialized world. In the USA approximately 3.9 million women give birth each year (Hamilton et al., 2013) and approximately half of them attend some form of childbirth preparation course (Declercq et al., 2013). There is unfortunately little evidence that childbirth education as currently structured is effective in producing beneficial impact on the birth experience (Gagnon and Sandall, 2007) and may instead cause the undesirable result of increasing women's fear of childbirth (Sorenson, 1990). Maternal stress in general is linked with preterm birth (National Research Council, 2007) and more focused examinations of fear of childbirth have demonstrated its links with adverse birth outcomes such as greater risk of emergency cesarean (Laursen et al., 2009). An innovative and efficacious approach to childbirth education is needed, which is the aim of our research on the Mindfulness-Based Childbirth and Parenting (MBCP) programme.

Secular mindfulness programmes are derived from over 2,500 years of Buddhist scholarship and meditation practice. Mindfulness-based interventions to reduce stress, anxiety, and

chronic pain (Mindfulness-Based Stress Reduction (MBSR); Kabat-Zinn, 1990, Kabat-Zinn et al., 1985) and to prevent relapse in major depressive disorder (Mindfulness-Based Cognitive Therapy (MBCT); Segal et al., 2002) have demonstrated mental and physical health benefits, including changes in brain function and structure (Davidson et al., 2003, Hölzel et al., 2011). A meta-analysis of mindfulness trials showed modest yet consistent reductions in anxiety and depression are maintained in follow-up (Goyal et al., 2014). A three-arm, randomized placebo controlled trial of MBCT yielded effects comparable to antidepressants in preventing relapse in recurrent depression (Segal et al., 2010), indicating mindfulness may be used in lieu of psychotropic medication.

Mindfulness interventions are also used to support family relationships, producing a range of benefits, including reduced parental anger and increased positive behavior exhibited towards youth (Coatsworth et al., 2010) and reductions in parenting stress and co-parenting disagreements (Bögels et al., 2008, Dawe and Harnett, 2007). A mindful parenting approach supports bringing open-hearted, present-centered attention and non-judgmental awareness to parenting--*in the moment* (Duncan et al., 2009, Kabat-Zinn and Kabat-Zinn, 1997). Mindfulness interventions for parents may improve parenting both through direct effects on parent-child interaction as well as improvements in parent psychological well-being and physiological regulation.

Theoretical Underpinnings of Mindfulness-Based Childbirth and Parenting

The MBCP approach is supported by revised Stress and Coping Theory (Folkman, 1997) and mindfulness theory (Brown et al., 2007, Kabat-Zinn, 2003, Wallace and Shapiro, 2006). Mindfulness allows for an appraisal process involving greater flexibility and accuracy of perception in the moment, as well as greater acceptance of and less mental reactivity to whatever is taking place on a somatic, cognitive, affective, or behavioral level. This capacity for being fully present when applied during childbirth supports the normal process of labor, both psychologically and physiologically (Bardacke, 2012). Mindfulness practice also increases positive affect (Bränström and Duncan, 2014) which serves as a restorative resource to support adaptive coping with stress (Folkman and Moskowitz, 2000). Mindfulness applied in the moment-to-moment process of parenting can support interpersonal present-centered nonjudgmental awareness and compassion (Duncan et al., 2009), thereby promoting healthy parent-child attachment.

History, Structure, and Content of Mindfulness-Based Childbirth and Parenting

MBCP is a fully manualized childbirth preparation programme adapted from MBSR in 1998 by Nancy Bardacke, CNM, MA. It contains the full content of MBSR tailored and enhanced to address the concerns of pregnancy and early parenting (Bardacke, 2012). Through MBCP participation, pregnant women and their partners learn mindfulness skills for coping with anxiety and stress in pregnancy, pain and fear during childbirth, and developing sensitive parenting.

The 9-week MBCP course includes a day of silent meditation between weeks 6 and 7 and an additional reunion gathering after all women have given birth. Participants begin MBCP in the late 2nd or early 3rd trimester and are asked to commit to home practice using guided meditation CDs for 30 minutes a day, 6 days a week throughout the course. Formal mindfulness meditation instruction is given in each class, including sitting meditation, body scan, mindful yoga, and lovingkindness meditation, all of which are tailored to include attention to mental and physical aspects of pregnancy (e.g., noting fetal movements during the body scan).

Instruction in a variety of mind-body pain coping practices, breastfeeding, postpartum adjustment and the social, emotional, and biological needs of the newborn are included, as well as instruction in developing mindfulness in daily life and the practice of lovingkindness meditation. All sessions prior to birth interweave suggestions for using both formal and informal mindfulness practices postpartum (e.g., using walking meditation to comfort a crying baby). These practices are reinforced in the reunion session post-birth.

Impact of Prenatal Mindfulness Training

In our first study of MBCP ($n = 27$) (Duncan and Bardacke, 2010), notable findings included significant decreases in pregnancy-related anxiety ($p < .0001$), depressive mood ($p = .016$), and intensity of negative affect ($p = .003$), and increases in the frequency ($p = .02$) and intensity ($p = .024$) of positive affect and mindfulness ($p < .0001$) from pre- to post-course. Additionally, 85% of participants reported using meditation to cope with a stressful aspect of pregnancy post-test. Qualitative data revealed a decrease in perceptions of anxiety and stress, high levels of reported use of mindfulness skills during childbirth, and “proof-of-concept” reports of engaging in mindfulness meditation or informal mindfulness as coping strategies for parenting stress postpartum.

In a subsequent RCT ($N = 30$) focused on pain and fear of childbirth, we gauged the feasibility of teaching MBCP skills to a socioeconomically and racially/ethnically diverse sample of pregnant women by randomizing them to either a mindfulness-based or a standard community- or hospital-based childbirth education course (Duncan et al., 2014a). Compared to standard childbirth education, we detected beneficial effects of brief MBCP skills training on childbirth self-efficacy and depression symptoms ($p < .05$). To date, maternal mental health benefits have been maintained into the second year post-birth ($p < .05$) (Duncan et al., 2014b). In another small study using an interpretive phenomenological approach ($N = 10$), thematic coding of in-depth qualitative interviews of MBCP mothers with children ages one to three revealed prevalent themes of parents using mindful attention and emotion regulation strategies to promote attunement with their children and remain calm during toddler tantrums (Shaddix et al., 2014).

Drawing from MBCP, an RCT of a mindfulness intervention for pregnant women in the 2nd and 3rd trimesters with a history of treated mood concerns ($N = 34$) showed decreased state anxiety and negative affect compared to a wait-list control (Vieten and Astin, 2008). More recently, another RCT of mindfulness for stress reduction in pregnancy showed a greater decrease in pregnancy-related anxiety/worry with mindfulness training ($n = 24$) compared to

a reading control ($n = 23$) (Guardino et al., 2014). Additional recent pilot studies further demonstrate the feasibility and potential benefits of mindfulness training offered in the perinatal period, including improvements in maternal-fetal attachment and postpartum maternal self-efficacy (Dunn et al., 2012, Perez-Blasco et al., 2013). Of these programmes, the MBCP intervention has undergone the longest period of clinical refinement (16 years) and appears to be the most comprehensive with its dual emphasis on childbirth preparation and mindful parenting skills.

Future Research Directions

Planned next steps for research on MBCP in the USA and UK (with the Oxford Mindfulness Centre) will include examination of intervention effects on a number of key parent and infant developmental outcomes, along with assessing an array of obstetrical processes and outcomes including labor pain, length of labor, and breastfeeding. Research is underway in the Netherlands and Hong Kong to test the applicability of MBCP in diverse cultures and languages. In all domains, large scale RCTs are needed to produce definitive evidence, but support is amassing for the overall benefit of mindfulness in key areas that are relevant to long-term maternal, child, and family well-being.

Conclusion

The Mindfulness-Based Childbirth and Parenting programme can be offered broadly as an innovative childbirth education program with the goal of promoting the mental health of both parents, supporting childbirth self-efficacy and easing labor, improving partner relationships and parenting sensitivity, and enhancing child well-being. “Scaled-up” dissemination can be achieved by partnering with the many now-established MBSR and MBCT providers and existing instructor training infrastructure (see Bardacke and Dymond, this issue). MBCP offers an appealing, non-stigmatizing approach to mental and physical health promotion in the perinatal period with the potential for widespread acceptance since it can be presented as childbirth education with an effective and sought after stress reduction component. Intervening in this sensitive period of developmental plasticity may produce important long-term physical and mental health benefits for children and families.

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Box.1 “Maternal psychological functioning in the prenatal and postnatal periods has a significant impact on the well-being of the child and the family as a whole.”

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Box 2: “Mindfulness is a theoretically- and empirically-supported strategy that holds promise for alleviating perinatal mood concerns as well as childbirth-related fear and pain.”

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Box 3: “MBCP is effective at reducing pregnancy-related anxiety and increasing positive emotion among pregnant women, and is beneficial for parenting.”

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Box 4: “MBCP skills training is feasible to deliver to diverse populations and reduces fear of childbirth and postpartum depression symptoms.”

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