

Effects of Mindfulness-Based Strategies during Pregnancy

Aaron J. Warchal¹, B.A.

La Salle University

Abstract

Objective: This paper depicts pregnancy as a challenging transformative time for expecting mothers and the developing child. Without proper coping mechanisms, expecting mothers who experience distress during this period are at greater risk of negatively affecting the health and well-being of themselves and their developing child. This article explains mindfulness and introduces mindfulness-based strategies as an effective practice to reduce stress and anxiety throughout pregnancy. **Background:** Research is provided to suggest that mothers who learn to cope with stress during pregnancy can reduce health risks for both themselves and their developing child. Mindfulness-Based Stress Reduction (MBSR) courses are presented as the outlet where individuals learn techniques that promote greater self awareness to reduce stress and anxiety. **Results:** As a direct product of the success of MBSR, Mindfulness-Based Childbirth and Parenting (MBCP) is introduced as the specialty that helps expecting mothers cope with difficulties during pregnancy. **Conclusions:** The paper is designed to propose that practicing mindfulness-based strategies during pregnancy decreases maternal stress and cultivates greater well-being for mother and the developing child.

¹ Corresponding author; email address: ajwarchal@gmail.com

Introduction

From a developmental perspective, pregnancy is the most natural process a woman can experience. For most women, the extraordinarily intricate biological ballet of reproduction is a normal and healthy process. Yet, this phenomenon does not occur without its many inherent challenges threatening the mental and physical well-being of both mother and developing child. Pregnancy can be a time of turmoil, where rapid physical change tests the very will of expecting mothers. During this sensitive developmental period, women experience physical challenges and often face overwhelming fears, hopes, doubts, and wishes about labor, parenting, finances, appearance, and health of the developing child (Alderdice & Lynn, 2009). Unless women successfully navigate the trials associated with pregnancy, the stress and anxiety often related to childbirth may have deleterious effects on both the physical and emotional well-being of the expecting mother (Duncan & Bardacke, 2009). Though most women who experience stress during pregnancy manage to deliver healthy babies, learning to cope with this stress can significantly reduce the health risks for mother and child (Alderdice & Lynn, 2009).

Background

Research shows that if expecting parents experience long durations of distress during pregnancy, the effects could be deleterious to the health and well-being of the mother and child. Ruiz and Avant (2005) suggest that the psychological state of the mother produces a biological response in the developing child and affects the child's emotional health. Increased levels of stress during pregnancy are linked to harmful maternal and infant results including: low birth weight; reduced duration of gestation and preterm birth; bacterial vaginosis during pregnancy; increased risk for chromosomally normal spontaneous abortion; lower Apgar scores; smaller head circumference; and neuroendocrine dysregulation (Vieten & Astin, 2008). Vieten and Astin (2008) also write that stress remains a significant indicator of substance abuse during pregnancy, more complicated labor and delivery, and postpartum depression. In addition, Ruiz and Avant (2005) presented arguments possibly linking prenatal stress in the mother to the underdevelopment and functioning of the child's immune system. Bergman, Sarkar, O'Connor, Modi, and Glover (2007) also offered findings indicating that maternal stress during pregnancy may result in poorer mental abilities in children.

Alderdice and Lynn (2009) reported that younger women (women in their twenties) are at increased risk to experience stress related to pregnancy than women in their thirties. Socio-economic status is also found to be a key element contributing to stress. Women of lower socio-economic status report more stress and often lack coping strategies due to limited finances and resources (Alderdice & Lynn, 2009). Findings also link a low education level to more stress during pregnancy (Alderdice & Lynn, 2009). Yet, there are options for pregnant women to explore when trying to reduce stress.

A growing number of women are beginning to rely on an ancient discipline to alleviate symptoms (Duncan & Bardacke, 2009). Increasing interest in Eastern philosophies and practices has women seeking alternatives to traditional medicinal and technological solutions in health care to provide comfort during pregnancy. In particular, women are turning their focus to the discipline of mindfulness to cope with the stress of pregnancy. Stemming from the early discipline of Buddhism, mindfulness is proving to be a respected and efficient practice to alleviate pain and suffering throughout pregnancy. Therefore, women who use mindfulness-based strategies during pregnancy decrease maternal stress and foster greater well-being for mother and the developing child.

According to Kabat-Zinn (2003, 144-156), mindfulness involves purposefully focusing one's awareness and attention to the experiences in the present moment without passing judgment. It means directing one's consciousness to what is actually happening in the external environment and simultaneously paying attention to internal experiences as events unfold moment by moment (Brown & Ryan, 2003). To help clarify mindfulness, certain aspects within the definitions can be individually defined. Brown and Ryan (2003) refer to awareness as the overall realm of internal and external experience. One can be aware of an occurrence without it being the focus of attention. Consciously centering on stimuli or simply taking notice of events in the realm of awareness is considered attention (Brown, Ryan, & Creswell 2007, 211-237). Awareness and attention work together so one may intentionally focus on internal and external experiences during the unfolding of events moment by moment.

Another key aspect of mindfulness worth examining is the idea of viewing events without passing judgment. Mindfulness means being open and receptive to the internal and external experiences as they unfold. Experiences should be viewed impartially, free from prior conditioning, convictions, labels, concepts, beliefs, and opinions (Brown et al., 2007, 211-237). When using mindfulness to be present, facts are merely observed rather than saturated by routine, uncompromising, or discriminative thought (Brown et al., 2007, 211-237). Non-judgmental observation allows people to experience phenomena with a novel openness that invites more objective emotional and behavioral reactions (Brown et al., 2007, 211-237).

Although the basic premise of mindfulness is becoming aware of and paying attention to the experiences in the present, it is not an easy discipline to master. Everyone has the capacity to develop mindfulness, but not everyone can truly experience this heightened attention to present occurrences (Brown, Ryan, & Creswell, 2007, 272-281). Brown and Ryan (2003) concluded that some may not have the desire to practice and learn techniques that cultivate mindfulness, while others may lack the cognitive capacity to learn mindfulness. In order for the benefits of mindfulness to be realized, the strategies and concepts must first be learned from expert teachers. Teaching mindfulness is

now common in the U.S. and has spread throughout the world because of the work of Jon Kabat-Zinn and his Mindfulness-Based Stress Reduction Program (MBSR).

Kabat-Zinn successfully introduced Buddhist meditative practices to the West in order to help people cultivate mindfulness to relieve suffering and improve emotional and physical health through MBSR (Kabat-Zinn, 2003, 73-83). Expert MBSR instructors are trained to provide insight and clarity into the meaning of mindfulness and deliver proper techniques and practices aimed at refining mindfulness through meditation (Kabat-Zinn, 2003, 144-156). It is a highly structured 8 week program in which meditative practices are coupled with the formal practice of yoga (Kabat-Zinn et. al., 1992). Participants attend a 2-hour class every week and a 7.5-hour concentrated and mostly silent meditation retreat session in the sixth week (Kabat-Zinn et. al., 1992). They are given homework assignments to increase their power of awareness, attention, and non-judgmental attitudes about the unfolding of events in the present moment (Praisman, 2008). Essentially, all the elements that comprise the essence of mindfulness are translated to participants so they may practice the discipline and gain valuable insight into the healing nature of mindfulness.

Results

Studying and realizing the potential health benefits of mindfulness, Nancy Bardacke, an avid practitioner of meditation and professional nurse-midwife, pioneered an approach to utilize Kabat-Zinn's MBSR program as an avenue to create a course designed for expecting parents (Duncan & Bardacke, 2009). In 1998, she developed the ten-session Mindfulness-Based Childbirth and Parenting program (MBCP) to help expecting parents use mindfulness-based stress reduction strategies to cope with the challenges of pregnancy, childbirth, and early parenting (Duncan & Bardacke, 2009). The eventual goal of the course is to promote overall family health and well-being (Duncan & Bardacke, 2009).

Bardacke's MBCP program aims to help expecting parents avoid these risks associated with the stress sometimes affiliated with pregnancy. The MBCP program holds one three hour session a week for nine weeks (Duncan & Bardacke, 2009). There is also a seven hour silent retreat day on the weekend during the final third of the program. A reunion class is offered four to twelve weeks after the participants have given birth (Duncan & Bardacke, 2009). Like the MBSR program, the MBCP course offers formal instruction of mindfulness-based strategies to foster greater attention and awareness to the present moment. Homework is given in the form of meditation using a guided meditation CD with the expectation that practice will occur thirty minutes a day for six days of the week during the course (Duncan & Bardacke, 2009). Unlike the MBSR program, the MBCP program fuses mindfulness with the current information of the psychobiological process of pregnancy, labor, birth, breastfeeding, postpartum adjustment, and the psychobiological needs of the

infant (Duncan & Bardacke, 2009). The program offers strategies for managing the pain of childbirth and the stress of daily living, and participants are also provided the book, *Full Catastrophe Living*, by Jon Kabat-Zinn to enhance their experience.

Each week, the classes present different topics. During the first week, mindfulness is introduced, defined, and clarified (Duncan & Bardacke, 2009). The second week focuses on group bonding and offers the first formal meditative session beginning with the body scan. Participants are encouraged to increase body awareness and accept their current physical sensations whether pleasant or painful (Duncan & Bardacke, 2009). The third week has participants stress the mind-body connection and present moment awareness. In the fourth, fifth, and six week, yoga is fused into the formal meditative routine and participants are taught to focus on their breath. Information about the biological process of birth, various positions for labor, selecting the right care provider, selecting the best place for delivery, as well as other birth supports are covered (Duncan & Bardacke, 2009). Week seven has participants wish each other well and discuss any difficult or inspirational moments of the experience to date. The following week reviews the previous weeks and covers breastfeeding and postpartum depression (Duncan & Bardacke, 2009). The final week invites an alumni couple to address the participants and explain how they used mindfulness during childbirth and how they are continuing to use it when parenting. Participants are encouraged to continue practicing mindfulness in the days leading to the childbirth as well as after the event. The tenth session is the reunion class and offers participants a chance to reconnect with friends, meet the new babies, and share experiences of how they utilize mindfulness (Duncan & Bardacke, 2009).

Quantitative and qualitative results from Duncan and Bardacke's trial (2009) supported the hypothesis that most women who used mindfulness-based strategies were able to cope with pregnancy and reduce stress and anxiety while promoting a general sense of calm. In Vieten and Astin's intervention (2008), similar results were produced. Women using mindfulness-based strategies during pregnancy displayed significant reductions in anxiety (Vieten & Astin, 2008).

Conclusion

Though both studies were small, potential clinical applications can still be drawn. Since research suggests that maternal distress has a direct influence on birth outcomes, improving mothers' affect, reducing stress, and lessening anxiety during pregnancy can be valuable. Using mindfulness-based strategies to reduce stress throughout pregnancy can result in greater physical and mental health for both mother and developing child. Although further research is necessary, it appears promising that women who use mindfulness-based strategies during pregnancy decrease maternal stress and foster greater well-being for mother and the developing child.

References

- Alderdice, F., & Lynn, F. (2009). Stress in pregnancy: identifying and supporting women. *British Journal of Midwifery*, 17, 552-559.
- Bergman, K., Sarkar, P., O'Connor, T. G., Modi, N., & Glover, V. (2007). Maternal stress during pregnancy predicts cognitive ability and fearfulness in infancy. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46, 1454-1463. doi: 10.1097/chi.0b013e31814a62f6
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822-848. doi: 10.1037/0022-3514.84.4.822
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007) Addressing fundamental questions about mindfulness. *Psychological Inquiry*, 18, 272-281. doi: 10.1080/10478400701703344
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, 18, 211-237. doi: 10.1080/10478400701598298
- Duncan, L. G., & Bardacke, N. (2009). Mindfulness-based childbirth and parenting education: Promoting family mindfulness during the perinatal period. *Journal of Child & Family Studies*, 19, 190-202. Advance online publication retrieved from <http://www.mindfulbirthing.org/index.html>
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10, 144-156. doi: 10.1093/clipsy/bpg016
- Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, 8, 73-83. Retrieved from <http://dbproxy.lasalle.edu:2056/pqdweb?index=20&did=1224495731&SearchMode=3&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1269298127&clientId=8384&aid=1>
- Kabat-Zinn, J., Massion, A. O., Kristeller, J., Peterson, L. G., Fletcher, K. E., Pbert, L.,...Santorelli, S. F. (1992). Effectiveness of a meditation-based stress reduction program. *The American Journal of Psychiatry*, 149(7), 936-943. Retrieved from <http://dbproxy.lasalle.edu:2048/login?url=http://dbproxy.lasalle.edu:2056/pqdweb?did=5>
- Praissman, S. (2008). Mindfulness-based stress reduction: A literature review and clinician's guide. *Journal of the American Academy of Nurse Practitioners*, 20, 212-216. doi: 10.1111/j.17457599.2008.00306.x
- Raguso, E. (2008). The mindful birth. *Greater Good*, 5(1), 30-33. Retrieved from <http://web.ebscohost.com/ehost/detail?vid=4&hid=3&sid=fb4efc1e-3555-44b5-8d4f-422899115f9d@sessionmgr4&bdata=JnNpdGU9ZWWhvc3QtbGl2ZQ%3d%3d#db=sih&AN=37583368>
- Ruiz, R. J., & Avant, K. C. (2005). Effects of maternal prenatal stress on infant outcomes: a synthesis of the literature. *Advances in Nursing Science*, 28,

345-355. Retrieved from http://dbproxy.lasalle.edu:3275/sp-2.3.1/ovidweb.cgi?&S=MFLDFPFHDEDDIFNCNCELCDGJMKHJAA00&Link+Set=S.sh.15.16.19.40|6|sl_10

Vieten, C., Astin, J. (2008). Effects of a mindfulness-based intervention during pregnancy on prenatal stress and mood: Results from a pilot study. *Archives of Women's Mental Health*, 11, 67-74. doi: 10.1007/s00737-008-0214-3