

Winter 2011

Prenatal Yoga: The Right Choice for Mother and Baby

Devon Neumann
Grand Valley State University

Follow this and additional works at: <http://scholarworks.gvsu.edu/honorsprojects>

Recommended Citation

Neumann, Devon, "Prenatal Yoga: The Right Choice for Mother and Baby" (2011). *Honors Projects*. 89.
<http://scholarworks.gvsu.edu/honorsprojects/89>

This Open Access is brought to you for free and open access by the Undergraduate Research and Creative Practice at ScholarWorks@GVSU. It has been accepted for inclusion in Honors Projects by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.

Prenatal Yoga:

The Right Choice for Mother and Baby

Devon Neumann

Grand Valley State University

Prenatal Yoga: The Right Choice for Mother and Baby

Exercise during pregnancy is a key component to ensuring maximal health status for both mother and child (Field, 2008). While continuing with pre-pregnancy exercise routines with physician-approved alterations may be possible, there are many options for exercise routines designed for pregnancy, such as prenatal yoga. Although there are many programs, DVDs, and guided classes available on the market today (Weiss, 2010), special care must be taken to ensure safety of the developing fetus and the mother (White, 2001). Done properly, prenatal yoga can be beneficial and enjoyable, providing health benefits and decreasing the likelihood of delivery complications and long term problems for both woman and infant. The purpose of this paper is to examine the details of yoga, explore the benefits of practicing yoga during pregnancy, and caution expectant mothers about certain poses to avoid from the perspective of a nurse.

What is Yoga?

While yoga does involve physical effort and can gradually increase an individual's heart rate (Sun, Hung, Chang & Kuo, 2010), it is much more than just an exercise program. Yoga is a holistic approach to health promotion that focuses on the interconnectedness of the body, mind, and spirit (Narendran, Nagarathna, Narendran, Gunasheela, & Nagendra, 2005). It is a combination of physical poses (called asanas), breathing techniques (called pranayama), meditation, and relaxation (Satyapriya, Nagendra, Nagarathns, & Padmalatha, 2009). Together, these aspects of yoga work together to strengthen the body, correct the flow of energy through the body, and allow the yoga participant to become more in tune with her body in order to allow it to guide her actions and movements (White, 2001).

Prenatal yoga as a form of childbirth preparation can be very helpful in preparing for labor and delivery as it teaches the mother to take cues from her body and maximize its natural

potential (Posner, 2010). There are many different kinds of yoga but most any pose can be altered to fit the abilities and needs of an individual pregnant woman (Kalimurti, 2005). A simple discussion with a patient's obstetrician or nurse midwife can help to identify whether or not yoga is the right choice for that individual.

Potential Benefits of Prenatal Yoga

Before advocating for any exercise regimen for pregnant women, the potential benefits must be explored and weighed against the risks. Practicing yoga during pregnancy has shown many benefits but there have been no recorded adverse effects of this form of prenatal exercise (Narendran et al., 2005; Sun et al., 2010). Some documented benefits of prenatal yoga that warrant discussion are reduction of maternal stress levels, reduction of pregnancy related pain, improved quality of sleep during pregnancy, and improved overall birth outcomes.

Reduction of Stress and Anxiety

A pregnancy, especially a woman's first pregnancy, represents a major life change that brings with it many physical, emotional, psychological, spiritual, and physiological stressors. Anxiety and stress resulting from these factors can have many adverse effects on the pregnancy and the developing child. Negative pregnancy outcomes associated with increased prenatal maternal stress levels include increased risk for spontaneous abortion, prematurity, fetal malformations, asymmetric intrauterine growth restriction (Satyapriya et al., 2009), and unplanned Cesarean sections (Beddoe & Lee, 2008). Complications after birth associated with increased prenatal maternal stress levels include attention deficits, hyper anxiety, disturbed social behavior (Satyapriya et al., 2009), emotional problems in childhood and poor infant temperament (Beddoe, Yang, Kennedy, Weiss, & Lee, 2009). In order to avoid these complications, pregnant mothers would benefit from strategies to deal with the stress associated with pregnancy.

Research has shown that yoga can be very successful in helping pregnant women cope with the stressors of their everyday lives. In a study performed by Satyapriya et al. (2009), pregnant mothers who participated in a weekly yoga class for a month and then continued practicing yoga at home reported 31.57% less perceived stress at 36 weeks gestation compared to their baseline stress levels. In addition, this study found that prenatal yoga can help to balance the body's autonomic responses to stress thereby reducing the likelihood of experiencing the negative effects of increased prenatal stress (Satyapriya et al., 2009). This could be due to the fact that yoga is an example of a holistic mind-body intervention aimed at promoting positive health outcomes by unifying the patient's mind, body, and spirit (Beddoe & Lee, 2008). Additionally, yoga trains the individual to be better prepared to cope with daily stressors and improve her overall mood (Marc, Blanchet, Ernst, Hodnett, Turcot, & Dodin, 2010). Yoga can indeed be an inexpensive yet effective way to manage the stress associated with pregnancy.

Reduced Pain Level

In addition to reducing stress and anxiety levels in pregnant women, yoga has also been shown to help reduce aches and pains associated with progressing pregnancy. The most common complaints of pregnancy-related pains are of lower back pain and pelvic pain (Wang et al., 2005). Yoga works to counteract these pains by strengthening and helping to relax the tension out of the muscle groups associated with these areas of the body (Pennick & Young, 2008). Because the pains of pregnancy can interfere with a woman's everyday life, most pregnant women will seek some form of treatment for these pains. While medications can be effective in reducing pains such as lower back and pelvic pain, many pregnant women are drawn more to non-pharmacological interventions to treat their pain because of the decreased probability of side effects. In a 2005 survey, 52% of all obstetric healthcare providers surveyed reported that they

would recommend complementary and alternative medicines, including yoga, for pregnancy related back pain (Wang et al., 2005). Finally, in a non-randomized controlled experimental study, women who participated in yoga 30 minutes a day, three days a week, for 12-14 weeks of their pregnancies reported less discomfort between the 38th and 40th weeks of gestation than those women who performed simple stretching routines at the same frequency (Sun et al., 2010). Excluding pharmacological interventions, yoga is one of the most effective treatments for the pains associated with pregnancy.

Improved Sleep Quality

While yoga has been shown to reduce pregnancy-related stress, anxiety, and pain, new research has also found a potential link between prenatal yoga practice and improved quality of sleep and rest during pregnancy. Sleep may be difficult during late pregnancy due to the restricted positions in which the mother can rest as well as more difficulty falling asleep and frequently waking up in the night due to fetal movement. Yoga has been shown to be an effective intervention for insomnia among other groups, including elders, menopausal women, and cancer patients (Beddoe, Lee, Weiss, Kennedy & Yang, 2010).

A new study focusing on the effect of yoga on pregnant women's sleep patterns found that when women participated in seven weekly group instruction sessions on yoga and mindful meditation and then practiced what they had learned at home at least five times a week, both subjective (self-reports) and objective (actigraphy readings) data reflected significant improvements in these women's sleep patterns (Beddoe et al., 2010). Again, the effects of yoga practice during pregnancy can be extremely beneficial to the overall health of both mother and child.

Improved Labor Experience and Birth Outcomes

Research findings have also revealed that yoga can greatly improve birth outcomes and individuals' labor experiences. Practicing yoga (including physical postures, breathing techniques, and meditation) for an hour each day starting between 18 and 20 weeks gestation until the birth of the baby has been shown to increase average birth weight and to decrease preterm labor, isolated intrauterine growth retardation, and pregnancy-induced hypertension as compared to walking for a half an hour twice a day throughout pregnancy (Narendran et al., 2005). This suggests that the combination of physical exercise as well as meditation and relaxation may have a greater impact on maternal and fetal health than physical exercise alone.

Additionally, yoga can help to make labor a more positive experience for the woman. By improving muscle strength and increasing energy reserves and flexibility, yoga works to prepare a woman's body for labor prior to the event arriving. This helps the woman to feel more in control, to believe in her body's ability to birth, and to achieve natural childbirth if it is desired (Chuntharapat, Petpichetchian, & Hatthakit, 2008). Being knowledgeable about one's body and what kinds of positions and movements may help in the birthing process may aid in a woman's attempts to have a natural birth in a modern hospital (Posner, 2010). Overall, yoga is an excellent way for a pregnant woman to prepare her body and mind for the delivery of her baby.

Warnings and Poses to Avoid

While there are clearly many benefits to using prenatal yoga as an exercise regimen during pregnancy, there are some warnings and contraindications of which any practitioner should be aware. First, yoga must be modified to fit the individual and her body. Not everyone who practices prenatal yoga will be able to do every pose recommended. If a woman is going through a yoga program and finds that a specific pose is painful or too difficult, she should either

seek a modification of that pose which is more comfortable or move on to another pose (Eirk, 2009). Individualizing any yoga routine is key in ensuring safety and maximum benefits from this type of exercise.

Moreover, there are certain types of poses that may be included in yoga programs that should not be attempted by pregnant women for various reasons. First, to avoid putting any undue stress on the already softened ligaments of the lumbar spine, poses that include back bends should not be attempted. Also, the pregnant woman should be aware of how she is laying on the floor when attempting floor-based poses. Poses that require the woman to lie on her belly should be avoided in order to prevent stress on the fetus and uterus. Laying supine for extended periods of time should also be avoided to prevent vena cava compression (White, 2001). As there are over 84,000 asanas or poses to choose from (Eirk, 2009), staying away from these types of poses should be relatively easy and will help to ensure the safe practice of prenatal yoga for any pregnant woman seeking its benefits.

Implications for Nursing

Many aspects of childbirth education classes find their roots in yoga (Chuntharapat et al., 2008) and awareness of these correlations can help any health educator to advocate for the use of prenatal yoga. As a patient educator, the nurse can help to make pregnant women aware of prenatal yoga as an option for childbirth preparation and a pregnancy exercise regimen. Additionally, with some extra training, a nurse could be qualified to teach a prenatal yoga class through the obstetrics clinic or hospital where he or she works (Israel, 2010). In this way, nurses can help to bring awareness about prenatal yoga and its benefits to the community in which they live and work, thereby helping to improve the health of mothers and babies.

Conclusions

Prenatal yoga is an excellent choice for any healthy pregnant woman to use in order to prepare herself physically and emotionally for childbirth. Physical poses can help to strengthen muscles and relieve pain while breathing techniques and relaxation can help to relieve stress and improve quality of sleep. Based on the evidence presented in this paper, a movement towards offering prenatal yoga classes in hospitals everywhere could greatly improve the health status of pregnant women and infants around the world. This inexpensive and easy holistic intervention can be done in a group setting or in the privacy of the pregnant woman's home. Nurses should begin to educate their patients about prenatal yoga and its benefits while also advocating for prenatal yoga programs to be established in healthcare institutions everywhere.

References

- Beddoe, A.E. & Lee, K.A. (2008) Mind-body interventions during pregnancy. *Journal of Obstetrics, Gynecologic, and Neonatal Nursing*, 37, 165-175. doi:10.1111/j.1552-6909.2008.00218.x
- Beddoe, A.E., Yang, C.P., Kennedy, H.P., Weiss, S.J., & Lee, K.A. (2009). The effects of mindfulness-based yoga during pregnancy on maternal psychological and physical distress. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 38, 310-319. doi:10.1111/j.1552-6909.2009.01023.x
- Beddoe, A.E., Lee, K.A., Weiss, S.J., Kennedy, H.P., & Yang, C.P. (2010). Effects of mindful yoga on sleep in pregnant women: A pilot study. *Biological Research for Nursing*, 11, 363-370. doi:10.1177/1099800409356320
- Chuntharapat, S., Petpichetchian, W., & Hatthakit, U. (2008). Yoga during pregnancy: Effects on maternal comfort, labor pain, and birth outcomes. *Complementary Therapies in Clinical Practice*, 14, 105-115. doi:10.1016/j.ctcp.2007.12.007
- Eirk, L. (2009). Yoga fundamentals: Pose by pose. *IDEA Fitness Journal*, 6(9), 68-70.
- Field, T. (2008). Pregnancy and labor alternative therapy research. *Alternative Therapies in Health and Medicine*, 14(5), 28-34.
- Israel, A.L. (2010). Prenatal yoga and childbirth education: A response to Tracy Posner's birth story. *Journal of Perinatal Education*, 19(2), 3. doi:10.1624/105812419X495488
- Kalimurti, C. (2005). Effective placement in Copenhagen with a yoga-midwife. *Midwifery Matters*, (106), 5-7.
- Marc, I., Blanchet, C., Ernst, E., Hodnett, E.D., Turcot, L., & Dodin, S. (2010). Mind-body interventions during pregnancy for preventing or treating women's anxiety. *Cochrane*

- Database of Systematic Reviews* 2009, Issue 1. Art. No.: CD007559.
doi:10.1002/14651858.CD007559
- Narendran, S., Nagarathna, R., Narendran, V., Gunasheela, S., & Nagendra, H.R.R. (2005). Efficacy of yoga on pregnancy outcome. *Journal of Alternative and Complementary Medicine*, 11, 237-244.
- Pennick, V. & Young, G. (2008). Interventions for preventing and treating pelvic and back pain in pregnancy. *Cochrane Database of Systematic Reviews* 2007, Issue 2. Art. No.: CD001139. doi:10.1002/14651858.CD001139.pub2.
- Posner, T. (2010). The most amazing 24 hours. *Journal of Perinatal Education*, 19(1), 4-7.
doi:10.1624/105812410X482653
- Satyapriya, M., Nagendra, H.R., Nagarathna, R., & Padmalatha, V. (2009). Effect of integrated yoga on stress and heart rate variability in pregnant women. *International Journal of Gynecology and Obstetrics*, 104, 218-222. doi:10.1016/j.ijgo.2008.11.013
- Sun, Y., Hung, Y., Chang, Y., & Kuo, S. (2010). Effects of a prenatal yoga programme on the discomforts of pregnancy and maternal childbirth self-efficacy in Taiwan. *Midwifery*, 26(6), e31-e36. doi:10.1016/j.midw.2009.01.005
- Wang, S., DeZinno, P., Fermo, L., William, K., Caldwell-Andrews, A.A., Braveman, F., & Kain, Z.N. (2005). Complementary and alternative medicine for low-back pain in pregnancy: A cross-sectional study. *Journal of Alternative and Complementary Medicine*, 11, 459-464.
- Weiss, R.E. (2010) Prenatal yoga for partners. *International Journal of Childbirth Education*, 25(2), 24.
- White, M. (2001). Yoga for pregnancy. *International Journal of Childbirth Education*, 16(4), 5-9.