

# Growing Fit Together: Including Social Support in Prenatal and Postnatal Fitness

by Kimberlee Bethany Bonura, PhD E-RYT CYT

**Abstract:** Exercise during pregnancy supports a variety of positive health outcomes for both mother and child, but less than one-quarter of pregnant women achieve minimum recommendations for physical activity during pregnancy. Research suggests that social support is a valuable strategy for improving exercise adherence. In particular, instrumental (i.e., tangible and concrete) social support improves physical activity behaviors. Friends and family members can support pregnant women and new mothers in regular exercise by offering physical activity social support through providing resources, childcare, and by exercising together. The purpose of this article is to review strategies for including family members in prenatal and postnatal exercise programs.

*Keywords:* prenatal fitness, postnatal fitness, exercise adherence, social support

## Introduction

Exercise during pregnancy supports a variety of positive health outcomes for both mother and child, including reducing the risk of gestational diabetes, high blood pressure, and premature birth, and improving psychological health and overall wellbeing (ACOG, 2011; ACOG, 2015). Unfortunately, twice as many women are sedentary during pregnancy as

compared to non-pregnant women (Marquez, et al., 2009). Research from the University of North Carolina indicates that only 23% of pregnant women achieve the minimum recommendation for physical activity during pregnancy (Evenson, 2010).

Social support improves health and wellness for both pregnant women and their babies. For instance, Collins, Dunkel-Schetter, Lobel, and Scrimshaw (1993) reported that both a higher quantity of support and a higher quality of support were related to positive pregnancy and birth outcomes, including better labor progress, higher Apgar scores, and lower levels of postpartum depression. Other research within the context of the transtheoretical model of change, found that social and environmental support are related to both postpartum exercise behavior and postpartum body mass (Keller, Allan, & Tinkle 2006), which indicates that social support both improves exercise behaviors and leads to positive exercise outcomes.

Marquez and colleagues (2009) suggest that social support is a powerful facilitator for encouraging prenatal fitness activities. Collins, Dunkel-Schetter, Lobel, and Scrimshaw (1993) reported that instrumental support rather than emotional support was more predictive of positive pregnancy and birth health outcomes. This suggests that while emotional support for prenatal fitness (i.e., encouraging the pregnant woman to engage in regular physical activity) may be helpful, instrumental support for prenatal fitness will be more effective. This is consistent with research review findings by Trost, Owen, Bauman, Sallis, and Brown (2002) which found that women (both pregnant and non-pregnant) with “high levels of physical activity social support” (p. 1999) were twice as likely as women without physical activity social support to be active for at least 30 minutes on 5 days per week. Instrumental support for prenatal fitness includes offering specific, concrete fitness-promoting strategies, such as providing prenatal fitness equipment and providing childcare for older

*continued on next page*

## Growing Fit Together

*continued from previous page*

children. Another effective instrumental support strategy is for the family member to exercise with the pregnant woman. Research suggests that exercising with friends and family members increases exercise adherence. In one weight loss intervention study, when participants were recruited with and participated with three friends or family members, 95% of participants completed a full 4-month exercise program (Wing & Jeffrey, 1999).

Teaching strategies to pregnant women and their family members for exercising together may be an effective, low-cost intervention strategy to support prenatal fitness activity and therefore promote prenatal health outcomes. The purpose of this article is to offer supportive guidelines for integrating family members into prenatal and postnatal fitness activities, to offer valuable support and encouragement for the pregnant woman and new mother in her exercise program.

## Integrating the Family into Prenatal Fitness

Adult family members can be included into the prenatal fitness program through partner exercise strategies. For example, when teaching breathing and meditation strategies, consider having the partner serve as a source of physical balance in both standing and seated positions. The partner can stand or kneel/sit behind the expectant mother and offer his/her torso as a source of physical support and balance. As a strategy to support the partner in cueing the mother's

breathing, have the partner physically place his or her hands on the expectant mother's stomach, and use his/her own breathing pattern as a strategic cue to encourage the mother into calm, centered breathing. See Figure 1 and Figure 2 for illustrations of supportive breathing positions incorporating the partner into breathing practice.

The partner can also provide balance in stretching poses that support prenatal fitness. For instance, squats are helpful in releasing low back pain during pregnancy, and in preparing the hips for childbirth and delivery. Figure 3 offers an illustration of a partner-supported standing squat. Partner-assisted squats are useful strategies both for prenatal exercise throughout the pregnancy, and for the childbirth preparation period prior to delivery. With proper guidance for safe techniques, partners can also use assisted stretching strategies to help reduce pain and discomfort for the expectant mother. Many partner yoga poses can be adapted to the prenatal exercise environment. For additional strategies to incorporate yoga and mindfulness exercises into childbirth education, see Bonura (2012; 2014) and Bonura, Spadaro, and Thornton (2016).

Children can also be integrated into prenatal fitness, and including the child in to the mother's prenatal program may help the young child to feel included in the pregnancy preparations and support positive emotional connection between mother, child, and new baby. When integrating young children into prenatal fitness, it is important to allow children to have space and flexibility to have fun. One simple strategy is to provide toys and props in the exercise environment, and

*continued on next page*



*Figure 1. Standing Breathing Practice with Partner. Partner serves as physical support behind expectant mother. Partner's chest is against mother's back, with hands on stomach, and focuses on maintaining calm, centered breathing as a physical cue to support mother's breath. \**



*Figure 2. Seated Breathing Practice with Partner. Partner kneels behind mother with knees gently spread apart, offering torso as physical support to mother. Similar approach to cue breathing as in standing breathing practice. 35 weeks.*



*Figure 3. Standing Squat with Partner Support. Partner and Mother stand facing each other, arms outstretched, clasping hands firmly around each other's forearms and wrists. On an exhale, both Partner and Mother lower hips into a squat. Partner offers the Mother counterbalance and support in this Squat position. 35 weeks*

## Growing Fit Together

*continued from previous page*

allow the child to move between interacting with the mother and playing on his/her own or with another trusted individual in the area. Young children may enjoy physically interacting with their mother during the exercise program, for instance engaging in the same activities. With very young children, mother and fitness instructor should focus on the child's fun participation in the program. Accuracy of position is not necessary, and the child will attempt to mimic the mother to the best of his or her abilities. For instance, (see Figure 4) with the child's version of a yoga dancer pose, and (see Figure 5) with a mother-child wide-leg stretch.

In a gentle and supportive environment, the child may be able to climb on his or her mother to interact within the fitness context. When another adult is present to ensure safety for both mother and child, this can be a fun strategy for incorporating young children into the fitness program. Figure 6 illustrates a modified child's pose (knees spread wide to accommodate the mother's belly). Child on mother's back provides gentle wide for a deeper low-back stretch, which may be helpful to relieve the low-back strain that occurs during pregnancy.

Childbirth educators should encourage mothers and children to have fun together in the fitness environment, to encourage engagement and adherence. Building child-friendly games into the fitness routine is another strategy to encourage child involvement. Childbirth educators can include children's



Figure 4. Child participating with mother in Yoga Dancer pose. 32 weeks with 2 year old

toys and songs into mother-child prenatal fitness classes, and children should be allowed to move freely between safe, supported free play and fitness participation with their mothers. One fun game is to include peek-a-boo for the child into seated stretches and breathing exercises; the instructor can use blankets and pillows near the mother for the child to hide under and behind. Overall, the goal of including children in the prenatal fitness environment is to support the expectant mother with an exercise program that doesn't require childcare for her children. This may increase her ability to attend classes and adhere to a prenatal exercise routine.

## Integrating Children and Newborns into Postnatal Exercise

Regular exercise in the postnatal period offers both physical and psychological benefits for the new mother. For instance, Guida, Sundaram, and Leiferman (2012) report that, after adjusting for a variety of factors including age, education, and smoking behaviors, women who do not engage in postnatal exercise are 1.34 times more likely to experience postpartum depression than are women who engage in regular (i.e., at least 5 days per week) physical activity. Similarly, when Cramp and Bray (2010) assigned postnatal women

*continued on next page*



Figure 5. Child participating with mother in Wide-leg stretch. 32 weeks with 2 year old

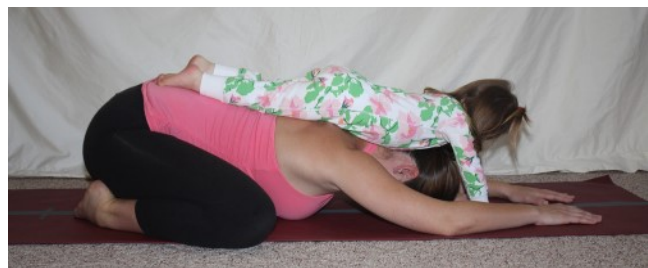


Figure 6. Modified Child's Pose with light weight to support low-back stretch and release. Mother's knees are spread wide to accommodate the pregnant belly. Another adult should be present to assist and support safety of both mother and child. 32 weeks with 2 year old

## Growing Fit Together

*continued from previous page*

to a moderate exercise program, they experienced reduced levels of anxiety and improved feeling states; participants experienced these same psychological benefits in exercise sessions which included the new baby. Since finding affordable quality childcare may be a barrier to exercise, Cramp and Bray suggest that “exercising with baby present may be an effective option that allows mothers to balance care duties and a physically active lifestyle, while achieving psychological benefits associated with exercise participation” (p. 343).

One strategy which has been used as a simple way to include the new baby in the new mother’s fitness program is through walking groups. In an Australian study on “pramwalking,” new mothers with postpartum depression improved their physical fitness and reduced depressive symptoms when they participated in a 12-week pramwalking group with other new mothers (Armstrong & Edwards, 2004). Walking with baby in a stroller allows the new mother to engage in regular physical activity, and walking in a group with other new mothers offers an environment of social support to promote adherence with the walking program. Future research should investigate strategies for including older children in the walking program, to offer supportive strategies for mothers of multiple children of varying ages. Potential strategies include incorporating tricycles, bicycles, and other ride-along devices for older children, and strollers with rear seats or standing bars for toddlers, and having additional adults participate in the walk to monitor other young children.

Mother-baby fitness programs also offer an opportunity for new mothers to engage in physical activity with their baby. Research suggests that mother-baby programs offer

positive outcomes in reducing the risk of postpartum depression. In one study, new mothers were randomly assigned to either an eight-week mother-baby fitness program or a control group. At the end of the eight-week program and at four-week follow-up, the women had a 50% reduced risk of postpartum depression compared to control participants (Norman, Sherburn, Osborne, & Galea, 2010). There are a variety of strategies for including babies in children in postnatal exercise programs. For instance, some stretches and activities, such as kneeling positions and yoga positions such as Downward Facing Dog can be done on an exercise mat, with baby lying on his/her back underneath the new mother. Some seated exercises, such as butterfly hip stretch and seated forward bend, can be done with mother holding baby (see Figures 7 and 8). Throughout these exercises, mother can focus on making eye contact with baby and talk with baby to support engagement and interaction between mother-and-child. When baby is sleeping, or resting nearby in a supportive environment or with a trusted adult, older children can be included in the postnatal fitness class, just as they can be in the prenatal fitness class.

## Conclusion: Family Supports Improves Maternal Fitness

Regular prenatal exercise supports both physical and psychological health of the mother, as well as improved birth outcomes for mother and child. Regular postnatal exercise supports physical recovery and improves psychological health, including reducing the risk of postpartum depression. Expectant and new mothers experience many barriers to regular exercise. Instrumental social support has been found to increase exercise adherence. Including the family in the prenatal and postnatal exercise program is a powerful social support strategy. Adult family members can exercise with the expectant and new mother, both through supportive breathing, offering balance and support in stretching and exercise, and with assistive stretching exercises that may relieve pain. Adult family members can also participate in walking, swimming, and other gentle cardiovascular programs to encourage regular activity by the pregnant woman. Children can be included in both prenatal and postnatal exercise programs. Research suggests fitness programs which incorporate children offer equal fitness and psychological benefits for mothers, and reduces the impact of needing childcare as a barrier to exercise for mothers. Childbirth educators should consider addressing social support strategies for exercise in their instructional programs, to increase exercise participation and adherence among pregnant women.



Figure 7. Mother in butterfly hip stretch, baby supported over forearm. 8 weeks PP

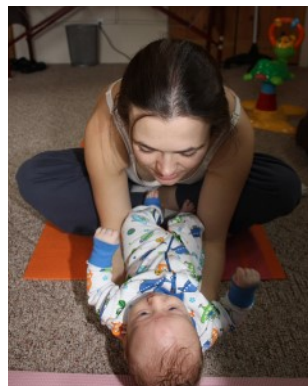


Figure 8. Mother in seated forward bend, holding baby’s head in palms. 8 weeks PP

*\*All photos credit to Kimberlee Bethany Bonura, LLC.*

*continued on next page*

## Growing Fit Together

continued from previous page

## References

American College of Obstetricians and Gynecologists. (2011). Patient education FAQ: Exercise during pregnancy. Retrieved from <http://www.acog.org/Patients/FAQs/Exercise-During-Pregnancy>.

American College of Obstetricians and Gynecologists. (2015). Physical activity and exercise during pregnancy and the postpartum period. Committee Opinion No. 650. *Obstetrics and Gynecology*, 126, 135-142. Retrieved from <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Physical-Activity-and-Exercise-During-Pregnancy-and-the-Postpartum-Period>

Armstrong, K., & Edwards, H. (2004). The effectiveness of a pram-walking exercise programme in reducing depressive symptomatology for postnatal women. *International Journal of Nursing Practice*, 10, 177-194.

Bonura, K.B. (2012). *Pelvic Yoga for Pregnancy* (DVD). Tallahassee FL: Yoga by Kimberlee Bethany Bonura.

Bonura, K.B. (2014). Yoga mind while expecting: The psychological benefits of prenatal yoga practice. *International Journal of Childbirth Education*, 29 (4), 49-54.

Bonura, K.B., Spadaro, N.I.M, & Thornton, R.W. (2016). Mindful fitness: Guidelines for prenatal practice. *International Journal of Childbirth Education*, 31, 14-17.

Collins, N., Dunkel-Schetter, C., Lobel, M., & Scrimshaw, S. (1993). Social support in pregnancy: Psychosocial correlates of birth outcomes and postpartum depression. *Journal of Personality and Social Psychology*, 65, 1243-1258.

Cramp, A., & Bray, S. (2010). Postnatal women's feeling state responses to exercise with and without baby. *Maternal and Child Health Journal*, 14, 343-349.

Evenson, K.R. (2010). National trends in self-reported physical activity and sedentary behaviors among pregnant women: NHANES 1999-2006. *Preventive Medicine*, 50(3) 123-128.

Guida, J., Sundaram, S., & Leiferman, J. (2012). Antenatal physical activity: Investigating the effects on postpartum depression. *Health*, 4, 1276-1286.

Keller, C, Allan, J., & Tinkle, M. (2006). Stages of change, processes of change, and social support for exercise and weight gain in postpartum women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 35, 232-240.

Marquez, D., Bustamante, E., Bock, B., Markenson, G., Tovar, A., & Chasan-Taber, L. (2009). Perspectives of Latina and non-Latina white women on barriers and facilitators to exercise in pregnancy. *Women & Health*, 49, 505-521.

Norman, E., Sherburn, M., Osborne, R, & Galea, M. (2010) An exercise and education program improves well-being of new mothers: A randomized controlled trial. *Physical Therapy*, 90, 348-355.

Trost, S., Owen, N., Bauman, A., Sallis, J., & Brown, W. (2002). Correlates of adults' participation in physical activity: Review and update. *Medicine and Science in Sport and Exercise*, 34, 1996-2001.

Wing, R, & Jeffery, R. (1999). Benefits of recruiting participants with friends and increasing social support for weight loss and maintenance. *Journal of Consulting and Clinical Practice*, 67, 132-138.

---

*Kimberlee Bethany Bonura, PhD, is an Experienced-Registered Yoga Teacher and Registered Prenatal Yoga Teacher with The Yoga Alliance, a Certified Yoga Therapist with the International Association of Yoga Therapists, a Certified Personal Trainer and Certified Group Fitness Instructor. She is a Contributing Faculty member in the Walden University School of Psychology. Contact her at [info@drkimberleebonura.com](mailto:info@drkimberleebonura.com) or learn more at [www.drkimberleebonura.com](http://www.drkimberleebonura.com).*

## Call for Papers for the ICEA Journal

You are encouraged to write a paper for the journal. Here are some upcoming themes. The list of topics and themes for articles that are being sought to submit for peer review include:

- Military Families
- Caring for a Newborn
- Comfort Measures
- Delivery Options and Trends
- Unexpected Outcomes
- Birth Around the World
- Folk Practices
- Birthing Through Time
- Breath Work
- Normalizing Breastfeeding
- Hospice and Bereavement

Please consider sharing your knowledge and expertise with ICEA members. **Deadline for October issue (Comfort Measures in Labor) is August 15.**

**Email your paper to [editor@icea.org](mailto:editor@icea.org)**

**Author guidelines can be found at:**  
**<http://icea.org/about/icea-journal/guide-for-authors/>**



International Childbirth Education Association