Rationale:
The following assignment was selected from the Principles of Health Behavior class. It shows some of the skills and competencies I have learned in designing, implementing, and evaluating public health programs and policies to promote health in diverse population groups. For this assignment, we were to select a health problem, define it, explain its impact, and create a health promotion program using a behavioral theory or model. I chose to create a health promotion program to help women lose weight after childbirth. I wrote about how when women that don't lose weight after childbirth struggle for much longer and have a greater risk of obesity 15 years later. I did a literature review on some programs and interventions that have worked or that didn't. Then I used the Information Motivation Behavioral Skills model to develop a health promotion program that could impact this health concern. I selected several strategies to use including education, diet, breastfeeding, exercise, motivating through benefits of the children and time with them, and developing skills that can be sustained in their newer, busier lifestyles. I also explained how these plans could be implemented. This fits because it shows that I was able to gather information on a health problem, design, and implement a health promotion program that could be effective in targeting improvements related to the problem.

Paper:

Postpartum Weight Loss and Fitness:
An Information-Motivation-Behavioral Skills Model Approach

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Postpartum Weight Loss and Fitness

The Problem

It is no secret that obesity is becoming a huge problem in the U.S. According to data from the Centers for Disease Prevention and Control from 2006, about one third or 72 million people in the US are obese (Ogden, et al., 2007). About 35% of the women in the US are overweight (Ogden, et al., 2007). Women are vulnerable when they become pregnant and then after childbirth when they are overwhelmed by the constant duties of motherhood. Many women put on more than the 25-35 pounds recommended during pregnancy making it more difficult to get the weight off (CDC, 2010). It is important that women strive to get back to their pre-pregnancy weight. There is an association with obesity 15-20 years later in life for women who are not able to lose the extra weight following pregnancy (Watson, 2008).

This author’s personal struggle after childbirth was with exercising and strength training, getting my old workout routines back into the mix with a job, school, and new baby just wasn’t working consistently. Thus, this health promotion program will include tips that worked for me about nutrition and losing weight, but what is unique to this program are the exercise and strength training routines.

The Information – Motivation – Behavioral Skills Model

The Information-Motivation-Behavioral Skills (IMB) Model lends itself well to this particular health behavior concern. The three constructs of this model are in the name. Information and Motivation can work directly to improve behavior, but they can also work indirectly through Behavioral Skills to improve the chance the person will perform the behavior (DiClemente, et al., 2013). The information construct of this model states that only knowledge linked to the behavior should be used, that knowledge should be very relevant and have a direct effect on the behavior. This is known as “behavior-specific” information (DiClemente, et al., 2013). Motivation combines a person’s attitudes about what might be gained in performing the behavior and the social influences or the perceptions of what the person thinks is normal behavior as well as what that person thinks those around him/her would think of the behavior (DiClemente, et al., 2013). Lastly, behavioral skills are about how well the person thinks they can
perform the behavior and how well the person can actually perform the behavior. Both must be high in order to succeed in getting to person to follow through on the behavior and to actually do the behavior correctly.

**Literature Review**

One thing women can do to help lose weight after delivery is breastfeed. In addition, to benefitting the newborn’s health, breastfeeding expends on average 500 calories per day for the mother (Bradley, 2006). A study examined various factors associated with breastfeeding using the TPB model (Swanson & Power, 2005). In this study, new mothers were interviewed within 48 hours of giving birth, and they completed a questionnaire following the interview. The interviews gathered demographic data and information about what the mothers’ intended form of feeding was prior to giving birth and what method they were currently using. The questionnaires asked about their beliefs about breast and bottle feeding, the mothers’ perceptions of the beliefs of others about both forms of feeding (subjective norms), and their perceived behavioral control over the feeding method decision. The questionnaires were repeated six weeks after birth. The study appeared to be well designed and executed. The results of this study showed that the women were influenced by their perceived views of others’ beliefs. They perceived that their mothers were less supportive of breastfeeding six weeks after birth than they were at birth. Additionally, mothers who discontinued breastfeeding perceived their partners, mothers and healthcare workers as being more supportive of bottle feeding at the follow up than ones who continued breastfeeding. And, perhaps most important from a health education perspective, both breast and bottle feeders rated the opinions of healthcare workers as being very important.

In addition to breastfeeding and good nutrition, new mothers need physical activity to lose weight and get back in shape. However, as shown in the literature, this is easier said than done. A study focused on the development of measurement scales to assess beliefs and attitudes about physical activity among new mothers using the TPB model (Hales, et al., 2010). New mothers completed questionnaires at three and 12 months after delivery. Most women reported participating in fewer than 4 hours per week of
physical activity. They reported that they believed that physical activity would be good for their health and help them look better. Additionally they reported that others such as their significant others and physicians believed physical activity was good for them. However, they indicated that they had limited perceived behavioral control and that engaging in physical activity was quite difficult as a new mother.

Another study investigated the applicability of the Transtheoretical Model (TTM) of behavioral change to physical activity among mothers in the Women, Infants, and Children program (WIC), a government funded support program for low income mothers (Fahrenwald & Walker, 2003). Thirty women were sampled representing six in each of the five levels of change in the TTM. Approximately half of the women engaged in no regular physical activity. These women had lower self-efficacy for engaging in physical activity, they were in the precontemplation and contemplation stages, and they identified cons for such activity as having young children, cold weather, and having minor health problems. The most common pros identified for engaging in physical activity included weight loss and getting in shape after pregnancy. Additionally, results showed that precontemplators used all 10 of the processes of behavior change the least. Implications of this study for health educators include working with mothers to increase their self-efficacy to engage in physical activity, emphasizing the pros of losing weight and getting in shape after pregnancy, and reducing the perceived barriers of having one or more children at home by identifying physical activities that can be done with children.

The Health Promotion Program: Eggos for Preggos

Kate Middleton comes out to greet her fans four days after she gave birth sporting a small baby bump. The next day magazines are offering her dieting tips for losing the baby fat. Pictures of Kate Hudson on the beach a few months after her baby were posted with captions of amazement at how good she looks. During a red carpet, a question was asked to Patricia Heaton a couple of months after she had her baby, “you look amazing, how did you do it”? Patricia’s response was something like, ‘oh, I don’t fuss with that stuff, just go under the knife and get it taken care of’. Media stories like these put a lot of pressure on women and some of it is very unrealistic. New moms do not lose their baby bump four days
after giving birth, and most new mothers cannot get plastic surgery to look “amazing” after only two months.

The truth is that while it can be challenging to lose weight and get in shape after pregnancy, it is not impossible. It is going to take more than four days, because the uterus needs time to contract, but two months is possible and it doesn’t require surgery to do it. There are ways new mothers can lose weight and get in shape. These include paying attention to diet and nutrition during and after pregnancy, breastfeeding, and physical activity. This program draws from the literature above that used the TPB and the TTM and attempts to simplify these processes and provide information to new mothers that will increase their motivation and perceived behavioral control. Hopefully, this program will help new mothers who are in the precontemplative and contemplative stages move into the action stage of change.

**Diet and Nutrition**

A woman does not have to actively diet to lose weight after giving birth. The normal 2000 calorie intake each day is perfectly acceptable and may not be enough if the woman is breastfeeding. A person’s body wants to go back to what it was pre-baby and it will shrink back as the swelling decreases. Breastfeeding helps to speed this process up. While looking good in a swimsuit might be an added bonus, the main reason to lose the weight is to be healthier for you and the child. A person who is overweight is prone to depression and loss of activity (Lupino, 2010). If a person loses the weight, not only will they likely feel better about themselves, but they will be able to be more active with their child and enjoy more things with them. At two years old, when they are running around the house, climbing the curtains, a new mom is going to wish that she was in shape enough to keep up with them. Additionally, mothers are going to want to spend time with children climbing hills, exploring at the zoo, and watching them see things for the first time, more of which they can do if they feel good and are in shape.

The name of this health promotion program is somewhat of a misnomer. A common statement about pregnancy is that the woman is “eating for two”. Well, that is not really true. In fact, during pregnancy a woman should eat to make sure she gets the proper amount of nutrients which means extra
vegetables, not extra calories. While pregnant, a person should not gain more than 35 pounds total (Bradley, 2006). Not only is it healthier for the baby, it is healthier for the mom. Extra weight does not protect the baby or even help it grow; it just goes to the hips, butt, arms, etc. of the mother. It causes the swelling of the feet and legs to be worse, and it likely will make the soon to be mom less active which again is not healthy for mom or baby. The bonus of not gaining more than the recommended weight is that it does come off much easier, no dieting is usually needed. If a woman does gain more than the recommended weight, she should not despair. It may take a little longer, but the weight will come off. It is important to stick with it because obesity has been associated with women who are not able to take the weight off after pregnancy (Watson, 2008).

Pregnant women really only need to increase the normal calorie intake in the last trimester and then only by about 200 calories per day, e.g., a smoothie, milk, bowl of oatmeal, broccoli with some ranch dipping sauce, etc. (Riley, 2011). Small snacks work great to keep the stomach churning at bay. To help with the nausea, try some cantaloupe and keep some Special K or other healthy, low calorie granola bars around. Guacamole, which contains a super food, with a handful chips is a great replacement of other fried foods and still lets a person enjoy a few salty, crunchy items with their snack. In the later months, when a woman is waking up at 3 am starving, they might consider a glass of 2% milk. There is enough protein and calories in milk to satisfy the craving, but not so much that it will cause weight gain. So, Eggos? Probably not, unless they are the wheat ones and they have some real fruit in them.

**Breastfeeding**

The American Pediatrics Association and many other organizations recommend breastfeeding exclusively for the first six months and to continue breastfeeding with other foods until baby is at least one year old (AAP, 2013). This means that the baby should have only breast milk for the first six months with no water or other food. Some organizations say four months is acceptable; between four and six months really depends on the baby, how fast they are growing and if they appear to be getting enough calories without adding additional food.
The reason breast milk is so important for those first several months without replacing it with other foods is because it is completely tailored to what a baby needs. Many babies have trouble with their digestion and breast milk is the easiest on their system. Also, it contains the extra vitamins and antibodies that just cannot be reproduced exactly in formula. Breastfeeding is found to support better health for the baby now and in the future. Breastfed babies have a lower risk of ear infections, other infections, type II diabetes, and SIDS, and breastfeeding moms have reduced chances of breast and ovarian cancer (CDC, 2007). Also, research has found that babies that were breast fed for at least six months were less likely to be associated with obesity compared to those that received formula (CDC, 2007).

An added benefit of breast milk is that it is free. The generic version of a formula brand costs about $15 a box and lasts about a week on average, a savings of about $800 for the year. Another benefit of breastfeeding is that it burns an extra 500 calories per day. Women need to make sure they are getting enough calories with enough healthy nutrients to keep the milk supply full of good stuff for the baby. Women who are breastfeeding should not diet and typically it is not necessary. With the extra 500 calories of room on top of the normal needed calorie intake, the breastfeeding mom can have a few extra snacks per day—ideally including some healthy fruits and vegetables, but maybe having a shake with real strawberries once in a while too—and still lose weight.

For some, breastfeeding seems natural but for others it can be scary. If the moms are not anxious about it, breastfeeding will likely go smoothly. During the prenatal visits, someone should be educating the soon-to-be-mom about the benefits and alleviating fears. Many moms start out breastfeeding, but do not end up going six months. Every hospital should have a lactation consultant visit after the baby is born, provide some one-on-one consultation and tips to encourage longer-term breastfeeding. A study found that individual consultation and education after childbirth was found to increase the length of time that mothers breast fed (Pannu, et al., 2010). These consultants should offer tips on breast pumps too. For the working mom, it is inevitable that these will have to be used. The right pump can go a long way to make it easier for the mom and thus, extending the length of breastfeeding.
Breastfeeding is a bonding experience, but this author is not afraid to admit that it does get old and tiring. The first few months are a breeze, but it gets harder. At times it feels all consuming. When other foods are introduced, it gets a little easier, but they still need quite the supply of milk. As a working mom, I found myself at month 9 counting down the days, but I would not trade the experience. Overall the experience is wonderful, the bonding and playing with your baby that no one else can really have, the nutrition and proven health benefits that the baby is getting, and the extra calories a person can have while still losing weight are huge positives that outweigh the constraints that are sometimes felt.

**Physical Activity**

A lot of women decrease their physical activity when they become pregnant. Generally, women do not need to stop their workout routines or other physical activity when pregnant. No negative effects have been found on the health of the baby or the mom when some amount of physical activity continues (CDC, 2007). By remaining on a physical activity schedule and continuing with similar eating habits or making better ones with more low calorie vegetables and fruits, pregnant women can maintain a healthy weight gain. It’s when women cut back on their activity and eat the same amount or more that they are going to see a weight gain in excess of what is needed. At some point, women will find that lower impact activities are easier on their bodies. Yoga, Pilates, step aerobics, swimming are great activities for keeping the body strong and healthy, keeping the blood circulation up which keeps the varicose veins at a minimum, and keeps the person moving around pretty well even during the late months.

This author found the Wii Fit to be quite helpful, even though it continued to yell at me about gaining weight. There were so many different stretching and aerobic exercises that it kept my interest, and once something became too difficult to do, there were other options available. This author did about 30 minutes of Wii about 4 days a week until about mid-way through the ninth month. I gained just about 30 pounds, had a seven pound 4 ounce healthy little girl, and lost all the baby weight in about 6-8 weeks. This is not to brag; I found a routine that worked pre-baby; what I struggled with was getting back into shape, adding a workout routine of cardio and strength training to the day with a new baby in the home.
Exercise after the baby is born is very important for the new mom. It can help with stress, sleep, and depression, and it keeps the muscles and bones strong while burning calories (Watson, 2008). About six weeks after the women has delivered, the body has recovered enough to begin some type of workout routine. It is recommended that the new mom get about 150 minutes per week or about 20 minutes per day of physical activity (Watson, 2008). Some of that time should include strength training.

Someone who is used to a certain routine every day or wants to knock out the entire one hour workout at one time is going to struggle. It is difficult to find time for uninterrupted, routine workouts with a newborn. Cardio can come in many forms some of which come naturally in motherhood, brisk stroller walks, dancing around with the baby as they cry themselves to sleep, and chasing them around when they are old enough to crawl and walk. Strength training however, is a little trickier. As a new mom, finding 20 minutes to lift some weights after coming home from work to a baby that hasn’t seen her all day and wants nothing more than to be held for at least the next 2 hours, is very difficult. Also, it is way too much to expect a new mom to put that new baby to bed and then go spend 30 minutes working out. What this author realized is that strength training doesn’t mean lifting weights; it just means using your muscles in ways that puts strain on them and engages them. Like cardio, strength training can be incorporated into those two hours after work while with the baby. It can be included in the interaction and play time; it just needs to become more creative.

The routine is not going get 20-30 minutes all together, that’s just not possible for a while. But, several different exercises can be done in just a few minutes, and then at the next opportunity a few more exercises can be done. This is not the optimum way to strength train; it is more effective when you keep the exercises closer together. However, it is still effective; the muscles are engaged; they are still working, and they can still leave you sore the next day. These exercises can be adapted and made to work for most people’s situations. New mothers should focus on just doing a couple of exercises here and there one or two times a day. They can increase the number of exercises or repetitions as they start to get more used to them. The following are some strength training exercises that I thought of while playing with my baby:
• Pushups (use knees if too hard)—these are great for shoulders, back, abs. With the baby on the floor, give them a kiss with each rep. If you have longer hair, use it to tickle the baby’s face, or do the pushups over the baby’s belly and pretend to bite it or blow on it.

• Curls—When your baby is holding their head sturdy, use them as your weight. With one arm under their neck and holding an arm and the other arm holding a leg, perform a curl. The baby sort of rolls off your arm toward the floor but remains protected by your grip, then curl them back up. The shoulders and biceps engage and your baby smiles and giggles as they roll up and down.

• Abs—while getting the bath ready, sneak in a few crunches. After my baby got comfortable in the tub, she liked sitting there while the water filled up. Do about 15 leg lifts, laying on back, and lifting butt and legs up to the sky a few inches. Then turn to side and do another 15 side crunches.

• Pushups—during bath time, using the side of the tub. With full view of your baby, you can talk and make faces at them while you do a few. She might even laugh at you when you start cringing.

• Thighs—lie on your back, pull your knees up to your belly and lay your baby on your shins and hold their hands, raise your shins up. Raise your head up slightly and rock back and forth to also work the abs. All the while, your baby thinks they are the center of attention.

• Squats—during the stroller walk, make a few stops and act like you’re sitting in an invisible chair, hold for 10 seconds, keeping toes pointed forward. For second rep, hold the stance a little longer and widen your legs, pointing toes outward. Do that about 5 times on your walk. This works the hamstrings, thighs, and butt.

• Leg lifts—once your baby is sturdy, sit on couch or chair, put your legs together, and have baby straddle your legs. Hold onto their hands and lift the lower half of your legs up. This works the thighs and maybe your core muscles if you are not able to relax your back up against something.

• Wii—once my baby was old enough to start recognizing colors and faces on the TV, she laughed when she saw the Wii Fit characters. There are not a lot of games you can play while holding your baby, but there are a few that work well. Holding your baby may cost you a few Wii points, but it contributes to the work out. The walk or run with the cat that you follow is a favorite. My daughter points and screams at the TV. The obstacle course, the penguin catching fish, and the soccer balls that bounce at your head are also quite popular.

• Final note—if you can only do one thing, do pushups. They work the most muscles and keep your core strong. Simply picking up and carrying your baby uses your bicep muscles. So, if you remember to switch hips, you’ve already got a strength training exercise down. Give a few of these a try, mix it up, I think you will find that you start coming up with your own versions and exercises that work with you and your baby’s playtime.

**Conclusion**

Most new mothers can lose weight and get in shape pretty easily without hiring a personal trainer or having surgery. By following the diet and nutrition guidelines in this paper, mothers do not have to gain excess weight during pregnancy and can lose weight quickly after giving birth. Additionally, breastfeeding helps mothers lose weight while providing a healthy start for the newborn. Finally, as challenging as it is, mothers can get the physical activity necessary to get in shape. By following the tips provided in this paper, mothers can exercise in ways that do not detract from spending time with their babies and can even have fun with the baby in the process.
References


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