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New Mothers' Views of Weight and Exercise

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Abstract

Purpose—To describe the attitudes and preferences of ethnically diverse new mothers on weight and exercise of women like them.

Study Design and Methods—Exploratory, qualitative study. Forty-nine ethnically diverse women were interviewed during the first year following childbirth regarding beliefs about weight, choices of exercise, walking for exercise, perceived benefits, barriers, and facilitators of exercise. Content analysis techniques were used to analyze the data.

Results—Weight was a significant concern for women, although the importance varied by race. New mothers reported that they would like to weigh less, and they endorsed walking for exercise. Common barriers to exercise were children and time constraints; health problems were also seen as a barrier to walking as a form of exercise. Scheduling the walk, and having a walking partner were factors which women said would facilitate walking for physical activity during the first year post childbirth.

Clinical Implications—Since new mothers perceive walking a good form of exercise, nurses can use this information to help them plan a daily walking schedule to aid in weight loss and control postpartum. Nurses should also encourage new mothers to look for a walking partner, especially another new mother or a friend, to help them continue their physical activity during the first year after childbirth.

Keywords

physical activity; weight; walking for exercise; post childbirth physical activity

Introduction

The purpose of this exploratory study was to describe the views of a small group of ethnically diverse new mothers on the attitudes and preferences of women like themselves related to weight, exercise, and walking as a form of exercise in the first year following childbirth in order to help nurses better understand how to care for this population.

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Callouts: If women gain weight during pregnancy according to the Institute of Medicine (IOM) recommendations, but fail to lose the extra weight by 6 months postpartum, they experience long term weight increases.
When comparing responses by race, we found that White and Hispanic women considered weight more important than did Black women
Women said that scheduling a daily walk would help them follow through on a walking plan. Additionally, walking with a friend, family member, or another woman with a new baby would also encourage them to continue walking for exercise.

Pregnant women frequently gain more weight than is needed for a healthy pregnancy (Carmichael, Abrams, & Selvin, 1997; Schieve, Cogswell, & Scanlon, 1998). If women gain weight during pregnancy according to the Institute of Medicine (IOM) recommendations, but fail to lose the extra weight by 6 months postpartum, they experience long term weight increases (Rooney & Schauberger, 2002). In addition, pre-pregnant body mass index (BMI) has also been shown to contribute to long term obesity, because women who start pregnancy heavier retain more weight following childbirth (Gunderson et al., 2004; Linne, Dye, Barkeling, & Rossner, 2003).

Previous Studies of Weight Retention Postpartum

Excessive pregnancy weight gain has been shown to lead to long term weight retention in studies of several different groups of women, among them White, middle income women (Rooney & Schauberger, 2002), adult women of various ethnicities (Gunderson et al., 2000; Gunderson et al., 2004), and also Black adolescents (Groth, 2008). Rooney and Schauberger, who followed 484 women longitudinally for 15 years (Rooney, Schauberger, & Mathiason, 2005), found that women who did not lose the weight gained during pregnancy by 6 months postpartum were 5.9 kg heavier 8–10 years later than the women who had lost the weight during the first months following childbirth. By 15 years following childbirth these same women were at risk for excessive weight gain and at high risk for development of coronary heart disease (CHD), as well as other chronic obesity-related diseases (Rooney et al., 2005). Women who took part in aerobic activity during the postpartum period were less likely to be obese 15 years later than those who did not.

Various ethnic groups have been studied regarding BMI changes after the first 6 weeks postpartum, and the results support that BMI appears to vary by ethnic group (Walker, Freeland-Graves, Milani, George et al., 2004; Walker, Freeland-Graves, Milani, Hanss-Nuss et al., 2004). Walker and colleagues reported that pregnancy weight gain and pre-pregnant BMI were correlated with postpartum weight change for all women, but that weight change patterns extending over the first year post childbirth were dissimilar between ethnic groups. Hispanic women gained weight during the first 6 months after childbirth, while African-American women gained weight during months 3–6 after childbirth. The weight of Hispanic and African-American women reached a plateau, or continued to increase during the 6–12 month time period post-pregnancy. In contrast, White women continued to lose weight over the entire first year after childbirth (Walker, Freeland-Graves, Milani, Hanss-Nuss et al., 2004).

Physical Activity Post-Pregnancy

Exercise frequency appears to be related to postpartum weight retention., as demonstrated by Olson et al (2003) who found in a sample of 540 women that low levels physical activity after pregnancy or an increase in food intake during the second 6 months postpartum resulted in additional weight gain at one year post childbirth (Olson, Strawderman, Hinton, & Pearson, 2003).

Walker's study examined the relationship of physical activity and weight in an ethnically diverse sample of 382 postpartum women and reported that physical activity was not related to BMI (Walker, Freeland-Graves, Milani, George et al., 2004). Measurements of physical activity and BMI were obtained at 6 weeks, as well as 3, 6, and 12 months following childbirth. The authors concluded that the low physical activity levels in all of the women in their sample might be the explanation for this lack of relationship.

Perceptions of the role of exercise during the post-pregnancy time period have also been found to differ between ethnic groups. White women at 6 weeks to 5 months after childbirth viewed exercise as a means to control weight, improve overall mood, and maintain fitness (Downs &

Hausenblas, 2004). Latina women, up to 18 weeks postpartum, saw exercise as a means to reduce stress and improve general health (Kieffer, Willis, Arellano, & Guzman, 2002).

Barriers and Facilitators of Physical Activity

There are real and/or perceived barriers to regular physical activity following childbirth. Both White educated women and low income Latina women have been studied in this regard. White women who were 6 days to 5 months post childbirth reported time constraints as the most common exercise barrier. This was followed by physical limitations and fatigue (Downs & Hausenblas, 2004). For Latina women who were 4–18 weeks post childbirth barriers included social isolation, family attitudes, neighborhood safety, and 'cuarentena'(the 40 day period during a Latina woman's postpartum experienced when cultural imperatives dictate proscribed lifestyle factors to protect mother and infant; physical activity falls within this framework) (Kieffer et al., 2002). Although cuarentena does limit the activities women can take part in, women saw this practice as a cultural strength that protected them from overexertion, not as an actual barrier to physical activity.

Studies of Black postpartum women's views or attitudes about physical activity were not found. However, correlates of physical activity for Black women have been examined (Wilbur, Chandler, Dancy, & Lee, 2003). For urban Black women, from a variety of socioeconomic and educational levels, factors such as education, perception of good health, knowing people who exercised, and a sense of neighborhood safety resulted in more physical activity (Wilbur et al.).

A primary factor that has been identified as facilitating physical activity for women is social support of partner, family, and friends (Downs & Hausenblas, 2004; Kieffer et al., 2002). Additional facilitators identified by Latina women were community safety and childcare options (Kieffer et al.)

New mothers are open to advice and receptive to adoption of new health habits (Godin et al., 1989). Consequently, there is the potential to influence health related behaviors in a positive manner in sedentary women. Physical activity is a modifiable factor to decrease post-pregnancy weight retention/gain can occur. As a precursor to design of effective nursing interventions to prevent long term weight increase, exploration of how ethnically diverse new mothers view weight, physical activity, and walking as a form of physical activity in the first year following childbirth is essential, and was the focus of this study.

Study Design and Methods

This study was approved by the University of Rochester Institutional Review Board (IRB).

Setting and Sample

The sample was comprised of 49 adult women who gave birth to an infant within the past year. Racially and ethnically diverse women were recruited in the outpatient setting of the Pediatric Practice at Golisano Children's Hospital in Rochester, NY. The final sample was: Hispanic (13), Black (24), and White (12), and ranged in age from 18–42, with 80% of the women under 30 years of age. The majority of the children received Medicaid benefits (90%), indicating the women were primarily from low income families. Forty-four percent of the women had one child, 24% had two children, and 32% had three or more children. The time since these women had given birth ranged from 4 days to 11.5 months.

Data Collection

Eligible women were given a letter of introduction informing them about the study by a staff member of the pediatric practice when they arrived at the clinic for a well child visit. If a woman agreed to participate, the interview was conducted either before or after her child's medical appointment in the pediatric practice waiting room by one of the two authors. The participant was asked each research question, in order, and responses were documented on the questionnaire.

The questionnaire was developed with a purpose of extracting perceptions and views of women regarding weight, physical activity, and walking for physical activity. The goal was to obtain a sense of the community view of weight and physical activity, especially walking, to determine the acceptability of a walking intervention to limit postpartum weight retention/increase. Women were asked to answer questions from the perspective of women they knew as well as for themselves as individuals.

Questionnaire development was based on the literature. Questions were reviewed by two experts for content validity. The questionnaire was structured to address general questions about weight and physical activity, along with questions specific to walking. There were 18 open-ended questions: three questions about weight, seven general questions about physical activity, and eight questions specific to walking.

Analysis

Data were analyzed using content analysis techniques (Downe-Wamboldt, 1992; Hsieh & Shannon, 2005; Morgan, 1993). Content analysis is a method that allows subjective interpretation of text data by systematic classification through the process of coding and theme identification (Hsieh & Shannon). A process of inductive category development was used where labels reflecting key thoughts or concepts emerged from the text and became labels for codes. Initial codes were refined through recursive interaction with the data by the authors. Participant responses were coded and frequencies counted. Detected patterns were used to guide further interpretation of the data. Data were examined for qualities, interrelationships, and implications. Group differences were examined both qualitatively and by frequency of occurrence.

Reliability was assessed by having each of the two researchers code 10 interviews using finalized codes; inter-coder agreement was 86%. The entire dataset was then recoded using the final coding schema. Validity was supported by attaining similar responses across interviews and consistency of content both across and within categories.

Results

In this sample of 49 women, 64% believed that weight is an important issue for women. Other respondents indirectly expressed the importance of weight in terms of the role it played in their lives—the effect of weight on image, self-esteem, and self confidence. Weight was a woman's *"whole life—her appearance—the way you look is the way you feel." "It [Pregnancy] means feeling good about themselves"*. For women, being overweight appeared to have an effect on self-image: *"a lot—don't feel attractive if bigger after a baby than before—mentally depressed"* and *"overweight [women] are self-conscious" and "too heavy—low self-esteem"*.

When comparing responses by race, we found that White and Hispanic women considered weight more important than did Black women (see Table 1). Of the Black women, several stated the importance of weight in terms of self-esteem or self-confidence. A large number of participants reported that women they knew would like to weigh less than their current weight

(see Table 1). One woman put it this way: *"Women are obsessed about weight—98% would like to weigh less."*

Physical Activity/Exercise

We asked the participants to describe ways that women could be active and also the ways that women they knew chose to be active. Walking was the most common response to both of these questions (54% and 46% respectively). Less common activities were working, exercise, and dancing/music (< 10% for each). Some women focused on activities with children—"*chasing child, ride bikes with child, walking, having fun."* Other women focused on solitary activities like "*exercise videos on TV while the baby is sleeping."*

When asked specifically about walking, 80% of the women perceived walking as a good form of exercise. One woman stated *"we all walk so I think it's good"* and another said, *"I think that that's one of the best and easiest ways [to exercise]." "It's healthy to do but most people don't do it. It's better than sitting around."* Other women were not sure whether walking was perceived as exercise "*some think it's not exercise because they do it all the time and don't lose weight, some think it is exercise because it increases heart rate and blood flow."*

Beliefs about Exercise

The women believed that exercise has a positive effect on health or well-being and increases energy and feelings of being healthy. "*When you exercise it gives you more energy and makes you feel good,"* and *"it's a big effect on mood—feel emotionally and physically better."* Participants indicated that it improves how women feel about themselves, or that it makes women feel good (see Table 2). Women, who exercise *"feel better about themselves to lose weight, increase energy—something to do away from home for self" a*nd have *"better confidence, self esteem, and strength."* For overweight women *"big women are self-conscious so exercise helps them feel good about themselves, especially when they lose weight or are encouraged to exercise."*

Over half the participants believed that exercise relieves stress, compared with a few who believed it increases stress. Participants indicated: *"work out helps stress, helps motivate to do more exercise,"* and *"lack of exercise would make stress worse-exercise made me a lot less stressed*" and "*excellent stress reliever."* The idea that exercise increases stress also was expressed: *"Exercise is stressful when you have to find time/place to exercise but also helps people relax," and "too much exercise can make a woman stressed."* Some women did not see a relationship-"*don't know—[exercise] doesn't relate to stress—kids get you stressed."* Other women either did not think there was a relationship or did not know.

Women's perceptions of the relationship of fatigue to exercise were varied. Several participants (26%) indicated that fatigue keeps a person from exercising and others (18%) did not know of a relationship between exercise and fatigue. Participants indicated opposing views; "*exercise makes you feel less tired*" vs. *"can't do anything when you're tired"* and they also suggested that "*too much exercise can cause fatigue."*

Barriers to Physical Activity/Exercise

Perceptions about barriers to physical activity varied. Some women indicated that *"nothing"* should prevent physical activity. Other women indicated individual barriers such as *"physical limitations," "being pregnant again-drained-without energy,"* and *"being so tired from feeding and changing the baby."*

The most common barrier to physical activity was children, and when lack of childcare is grouped with this response, the frequency becomes greater (see Table 2). The frequency

increased as the number of children a respondent had increased. Of the women who had three children, 46% reported children/lack of childcare as a barrier. Of the women with two children 42% considered these a barrier, and of the women with one child 27% considered children/ lack of childcare a barrier. The second most common barrier was inadequate time, regardless of how many children a woman had (see Table 2).

Responses related to barriers for walking were similar to those for general exercise (see Table 2). Health problems were a predominant barrier to walking and included a variety of issues such as; illness, disability, and asthma. These health issues were described in general statements: *"health problems" "disability" "physical problems" "illness" and also more specifically as "back pain, leg pain, too overweight" "emotional state,"* and *"shortness of breath-asthma."*

Facilitators of Walking as a Form of Exercise

The foremost factor that women reported would help women follow through on a walking plan was scheduling (see Table 2). Second most commonly mentioned was to walk with someone else: a friend, family member, or another woman with a new baby. Some respondents indicated a preference for a destination, not wanting to walk for the sake of walking. Other respondents thought wanting to look good or knowing/seeing the benefits would motivate women. As one participant indicated *"Having a boyfriend or wanting to look good"* was a motivator. Another participant focused on *"motivation and family support"* as helpful.

Seventy-two percent of the participants said they would take their infant when walking. The major factors that would interfere with this plan were the weather (32%) and illness (20%). The most commonly reported place to walk was parks (50%), followed by an outdoor track (20%), and then neighborhoods (16%).

Clinical Implications

Nurses can use the information from this study to help their patients make a plan for attaining the weight they desire after giving birth. Weight has meaning for women as more than a health issue, and is an important aspect of how a woman defines herself. Although the importance of weight was expressed by most of the women, the emphasis was found to be greater in the White and Hispanic women. Black and Hispanic women connected weight with self-esteem more so than did White women, conveying a sense of how the importance of weight might be different for different ethnic groups. Yet, regardless of race, these women indicated that women generally wanted to weigh less.

Women had a positive view of exercise and walking was the exercise of choice reported by this ethnically diverse group of women. Walking, an activity that can be done almost anywhere and at any time, without financial investment in equipment, is potentially a feasible physical activity for postpartum women to incorporate into their lives. Fear for safety and lack of access did not appear to be major concerns. Inadequate time was perceived as a barrier, but to a relatively small percentage of the participants. In previous studies, time constraints have been found to be a major barrier for White women (Downs & Hausenblas, 2004), but not for Latina women (Kieffer et al., 2002). In this sample, some of the Hispanic women found time constraints to be more of a barrier than the Black or White women. Nonetheless, for the majority of women in this study, time constraints were not perceived to be an issue.

When counseling patients, nurses can emphasize what the women in this study expressed: that the main facilitators of physical activity were scheduling it, and walking with someone else. If there are safety concerns, although not expressed by this sample, women who live in an unsafe community might be more amenable to walking if they walked with someone else.

Nurses can encourage women to build physical activity into their daily schedule, and help women identify a walking partner.

Future research should focus on implementation of walking as a physical activity intervention for low income women to limit weight retention/increase post childbirth. Additional areas of research are: further exploration of perceptions of physical activity in other populations of women, and knowledge of weight management following childbirth. Research also should focus on pregnancy weight gain and the barriers/facilitators to physical activity during pregnancy.

Limitations

A limitation of this study is that the participants were asked questions as they related to women they knew, not specific to themselves. The questions were structured to preserve a sense of privacy in a public waiting room and to capture a sense of the community's views rather than those of individuals. Therefore, we did not obtain information regarding participant weight or current physical activity levels. The sample was limited in size and from a small geographic area, limiting generalizability of the findings. Responses may have been shaped by perceived social desirability.

Conclusion

When providing care to women following childbirth, nurses should be sensitive to and cognizant of the meaning and importance of weight to women of all ethnic groups. Capitalizing on the almost universal sense that women would like to weigh less, nurses can encourage women to engage in healthy behaviors that promote healthy weights. Women appear to be open to physical activity in the year following childbirth, especially walking. Reinforcement of walking as a form of physical activity/exercise can easily become a part of counseling postpartum, and nurses can encourage women to find someone to walk with daily as a scheduled routine.

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Table 1

Ethnically diverse women's views regarding weight in the first year post childbirth

Responses	Total sample (*n* = 49)	Black (*n* = 24)	White (*n* = 12)	Hispanic (*n* = 13)
Meaning of weight to women				
Important	32 (64%)	14 (58%)	9 (75%)	9 (69%)
Image	4 (8%)	2 (8%)	1 (8%)	1 (8%)
Self-esteem	4 (8%)	2 (8%)	-	2 (15%)
Self-confidence	2 (4%)	1 (4%)	-	1 (8%)
Attitude toward current weight				
Would like to weigh less	39 (80%)	17 (71%)	9 (75%)	13 (100%)
Want to weigh more	2 (4%)	1 (4%)	1 (8%)	-
Dissatisfied	1 (2%)	-	1 (8%)	-
Satisfied	6 (12%)	5 (21%)	1 (8%)	-

Table 2

Ethnically diverse women's views regarding exercise in the first year post childbirth

Responses	Total sample (*n* = 49)	Black (*n* = 24)	White (*n* = 12)	Hispanic (*n* = 13)
Exercise effects				
➢ Improves feelings about self	17 (34%)	9 (38%)	4 (33%)	4 (31%)
➢ Feel good	13 (27%)	11 (46%)	1 (8%)	1 (8%)
➢ Increases energy	9 (18%)	3 (13%)	4 (33%)	2 (15%)
➢ Relieves stress	28 (56%)	11 (46%)	8 (67%)	9 (69%)
Barriers to physical activity				
➢ Children	14 (28%)	7 (29%)	4 (33%)	3 (23%)
➢ Lack of childcare	4 (8%)	2 (8%)	2 (17%)	-
➢ Inadequate time/too busy	8 (16%)	3 (13%)	1 (8%)	4 (31%)
➢ Illness/physical limitations	7 (14%)	3 (13%)	2 (17%)	2 (15%)
Barriers to walking				
➢ Children	4 (8%)	3 (13%)	1 (8%)	-
➢ Inadequate time/too busy	2 (4%)	2 (8%)	-	-
➢ Health problems	18 (36%)	8 (33%)	6 (50%)	4 (31%)
Factors that facilitate walking				
➢ Schedule	18 (36%)	8 (33%)	5 (42%)	5 (39%)
➢ Walking with others	10 (20%)	3 (13%)	3 (25%)	4 (31%)