Research Article

Excess Gestational Weight Gain in Low-Income Overweight and Obese Women: A Qualitative Study

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ABSTRACT

Objective: Examine factors implicated in gestational weight gain (GWG) in low-income overweight and obese women.

Design: Qualitative study.

Setting: Community-based perinatal center.

Participants: Eight focus groups with women (black = 48%, white non-Hispanic = 41%, and Hispanic = 10%) in the first half (n = 12) and last half of pregnancy (n = 10) or postpartum (n = 7), 2 with obstetrician-gynecologists (n = 9).

Phenomenon of Interest: Barriers and facilitators to healthy eating and GWG within different levels of the Social Ecological Model: for example, intrapersonal, interpersonal, and organizational.

Analysis: Coding guide was based on the Social Ecological Model. Transcripts were coded by 3 researchers for common themes. Thematic saturation was reached.

Results: At an intrapersonal level, knowledge/skills and cravings were the most common barriers. At an interpersonal level, family and friends were most influential. At an organizational level, the Special Supplemental Nutrition Program for Women, Infants, and Children and clinics were influential. At the community level, lack of transportation was most frequently discussed. At a policy level, complex policies and social stigma surrounding the Special Supplemental Nutrition Program for Women, Infants, and Children were barriers. There was consensus that ideal intervention approaches would include peer-facilitated support groups with information from experts. Obstetrician-gynecologists felt uncomfortable counseling patients about GWG because of time constraints, other priorities, and lack of training.

Conclusions and Implications: There are multilevel public health opportunities to promote healthy GWG. Better communication between nutrition specialists and obstetrician-gynecologists is needed.

Key Words: gestational weight gain, overweight, obesity, WIC (*J Nutr Educ Behav*. 2015;■:1-8.)

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INTRODUCTION

Excessive weight gain during pregnancy is a public health concern. Sixty percent of overweight women (body mass index [BMI] 25–29) and 45% of obese women (BMI ≥ 30) gain weight during pregnancy in excess of the Institute of Medicine's (IOM) recommendations.[1,2] Current suggestions for total weight gain are 28-40 lb for BMI < 18.5, 25–35 lb for BMI 18.5–24.9, 15–25 lb for BMI 25.0–29.9, and 11–20 lb for BMI ≥ 30.0.[2] Women who gain excess gestational weight have increased risk of postpartum weight retention and of developing diabetes and cardiovascular disease, have increased risk for cancer and mortality, and transmit risk to their offspring.[3-7] Excess gestational weight gain (GWG) increases the risk of complications for newborns, including neonatal seizures, meconium aspiration syndrome, low Apgar scores, and large for gestational age, along with risks for overweight/obesity and adverse cardio-metabolic profile in childhood.[8-11] Overweight and obese pregnant women experience higher rates of preeclampsia, gestational diabetes, fetal macrosomia, shoulder dystocia, cesarean delivery, and intrauterine fetal death compared with their normal weight counterparts.[12,13] Coupled, the risks of obesity and excess GWG lead to an

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escalating cycle of alarming risks for future generations.[14]

Low-income women are more likely to be affected by obesity than higher-income women.[15] Non-Hispanic blacks in the US have the highest age-adjusted obesity rates in the nation.[16] Overweight, non-Hispanic black women are at the highest risk for lifelong postpartum weight retention, so there is an urgent need for effective socially and culturally appropriate interventions targeting these groups.[17]

Prenatal care provides a unique window of opportunity for obesity prevention and intervention.[18] Unfortunately, information from physicians about GWG is often insufficient and inaccurate.[19-21] In a prospective cohort study of low-income, urban women, strong predictors of excess GWG included both receiving clinician advice discordant with IOM guidelines and having a high BMI early in pregnancy.[22] The IOM's 2009 report on weight gain during pregnancy outlined several recommendations for action, including routine reporting of GWG by racial/ethnic group and socioeconomic status. Data on GWG in diverse populations was identified as a major research gap that needs to be addressed.[2] Despite this, little research has been done to identify facilitators and barriers to healthy nutrition and weight gain in diverse pregnant populations, especially low-income, minority overweight and obese women.

The findings of a qualitative study examining facilitators and barriers to healthy eating and healthy GWG among low-income, overweight and obese, pregnant and postpartum women, and obstetricians-gynecologists (OB-GYNs) from a community-based perinatal clinic in Madison, WI are described. This formative research is designed to inform culturally and socially appropriate interventions to increase healthy diet and lifestyle behaviors, prevent excess GWG, and reduce adverse perinatal and long-term health outcomes among women and children.

METHODS

Participants and Setting

English-speaking mothers (n = 29) and OB-GYNs (n = 9) were recruited from a community-based perinatal center in Madison, WI, which provides comprehensive low- and high-risk obstetrical services to predominantly low-income, minority women. Participating mothers were identified through chart review of pregnancy status. Inclusion criteria included being pregnant or 6 weeks to 1 year postpartum, having a prenatal intake BMI $\geq$ 25, being aged $\geq$ 18 years, having the ability to speak English, and being eligible for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), a federally funded nutrition program for participants whose gross income falls below 185% of the US poverty income guidelines. Women were categorized as being in the first half of pregnancy (under 26 weeks' gestation; n = 12), the second half of pregnancy (26 weeks' gestation to term; n = 10), or postpartum (6 weeks postdelivery to 1 year postpartum; n = 7). Participating OB-GYNs were clinicians from the same clinic. Participants were recruited by 1 of the coauthors (AMS), who was an OB-GYN in the clinic before the study began.

Procedures

A study advisory committee composed of community members (women/mothers of similar background, race, and ethnicity as study participants), study investigators, OB/GYNs, and Wisconsin Department of Health officials) guided the development of focus group questions based on the Social Ecological Model (SEM).[23] The SEM has been adopted by the Centers for Disease Control and Prevention to address many public health problems, from domestic violence prevention to breastfeeding promotion. This model employs a multilevel approach to prevention that addresses intrapersonal, interpersonal, organizational/institutional, community, and societal/policy-level influences on health behaviors.[23] Thus, focus group questions were designed to elicit barriers and facilitators of healthy GWG across multiple levels of the SEM. Focus group questions are listed in Tables 1 (for women) and 2 (for OB-GYNs).

Focus groups were facilitated by trained members from the advisory committee with similar race and ethnicity (Hispanic, black, or white) to the majority of focus group participants in each session. Facilitators were trained by an expert consultant.[24-26] Ten focus group discussions (8 with community women and 2 with OB-GYNs), each lasting 90 minutes, were conducted at the cooperating obstetrics and gynecology clinic. Focus groups ranged in size from 3 to 5 people per group and were mostly of mixed race and ethnicity with the exception of 1 all-black group and 1 all non-Hispanic white group. The University of Wisconsin-Madison Institutional Review Board approved the study. All participants provided written informed consent. The OB-GYN participants

Table 1. Focus Group Questions for Overweight or Obese Mothers

1. What are your sources of information about eating during pregnancy?
2. Which of these sources is most likely to persuade you?
3. Give an example of a time when you received information from a doctor or another health care person on eating in pregnancy or weight gain in pregnancy that was useful to you.
4. Give an example of a time when you received information that was not useful.
5. What makes it hard to eat the right foods during pregnancy?
6. What would make it easier for you to eat healthy during pregnancy?
7. Sometimes it is hard to not gain too much weight during pregnancy. What makes it hard to not gain too much weight during pregnancy?
8. What would make it easier for you to not gain too much weight during pregnancy?
9. If it was your job to help pregnant women eat healthy and not gain too much weight, what would you say or do to accomplish that goal?
10. What is the most important thing we talked about today?