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Behaviours of overweight and obese women during pregnancy who achieve and exceed recommended gestational weight gain

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Summary

Background—Excessive gestational weight gain (GWG) is associated with increased risk of pregnancy-related complications, postpartum weight retention, and long-term obesity. Little is known about the behavioural habits of pregnant women who achieve and exceed recommended GWG.

Method—In 2011, qualitative interviews were conducted in Pennsylvania with post-partum women who were overweight or obese prior to pregnancy to ascertain their behaviours and attitudes regarding dietary habits, physical activity, and self-monitoring during pregnancy. Thematic analysis identified the habits of women who achieved and exceeded recommended GWG guidelines.

Results—Of the 29 women interviewed, 11 had appropriate GWG and 18 had excessive GWG. Women achieving appropriate GWG reported modest increases in caloric intake if at all, with deliberate meal and snack planning, while women with excessive GWG described “eating-for-two.” Nearly all women with excessive GWG reported exercising less during pregnancy (or remaining sedentary), while women with appropriate GWG largely increased or maintained pre-pregnancy physical activity levels. About half of the sample reported self-monitoring weight gain during pregnancy, but women achieving recommended GWG tied their weight monitoring with GWG goals consistent with recommended guidelines.

Conclusions—Women who achieved appropriate GWG reported deliberate dietary habits and physical activity planning, with appropriate GWG goals during pregnancy. Women exceeding recommended GWG described “eating-for-two,” were sedentary, and either had no goals for GWG or intended to gain more weight than recommended.

Keywords

Gestational weight gain; Nutrition; Physical activity; Pregnancy; Obesity

Introduction

Excessive weight gain during pregnancy predisposes women to postpartum weight retention and increased risk for long-term overweight and obesity [1–4] making preventing excessive gestational weight gain (GWG) an important target for obesity prevention. Additionally, excessive GWG is associated with risk of premature birth, large-for-gestational age infants, lower breastfeeding initiation rates, thromboembolic events, and cesarean delivery [5–8]. The 2009 Institute of Medicine (IOM) guidelines recommend that women normal weight, overweight, and obese prior to pregnancy gain 25–35 pounds, 15–25 pounds, and 11–20 pounds, respectively [6]. While gestational weight gain has been increasing among pregnant women in all weight categories, overweight women are especially at risk. Currently, 60% of overweight women exceed the IOM GWG recommendations compared with 40% of normal weight women [9,10].

Interventions aimed at preventing excessive GWG have had limited success, and none have been effective in women already overweight or obese prior to pregnancy [11–14]. These trials have included resource-intensive behavioural interventions consisting of calorie restriction, physical activity, or both. Since these approaches have had only modest success in achieving recommended GWG, we propose identifying novel behaviours and attitudes of women who have either successfully achieved recommended GWG on their own or have exceeded recommended GWG [15,16]. Although the basic principles of healthy nutrition and physical activity apply to both pregnant and non-pregnant persons, pregnancy is influenced by morning sickness, worsening of gastrointestinal reflux symptoms, food cravings and aversions, and the common adage of “eating-for-two.” Federal guidelines recommend at least 150 min of moderate-intensity aerobic activity a week in the absence of absolute contraindications for pregnant and non-pregnant adults alike [17], however, actual prenatal physical activity habits can be influenced by widespread beliefs that exercise during pregnancy can be dangerous, as well as by physical limitations to exercise as women advance through pregnancy. The purpose of this qualitative study is to identify the behaviours and attitudes of overweight and obese women who achieve and exceed current GWG recommendations, which can later be used to inform interventions aimed at preventing excessive GWG.

Materials and methods

In summer 2011, qualitative interviews were conducted with women following the birth of their first child to ascertain their pregnancy experiences related to GWG [18]. The sample

was recruited from participants of the Penn State First Baby Study [19], an on-going longitudinal cohort study of women aged 18–35 who were nulliparous and pregnant with a singleton gestation. Women were eligible if they were overweight (body mass index (BMI) 25.0–29.9 kg/m²) or obese (BMI ≥ 30.0 kg/m²) prior to pregnancy. The telephone interviews were conducted by one of 3 investigators (MS, SH, DV), and took approximately 30 min. Participant received a \$20 gift card for participating. Women were continuously enrolled until thematic saturation was reached as determined by the research team, with representation of participants who both exceeded and did not exceed GWG recommendations. This study was approved by the Penn State College of Medicine's Institutional Review Board.

The interview guide included open-ended questions about GWG during pregnancy (Table 1). The topics related to dietary habits, physical activity, and self-monitoring of weight gain. We considered women to be self-monitoring their GWG if they were consistently aware of their measured weight during their prenatal care visits or at home, and kept track of those weights either mentally or in a written log. Responses were linked to First Baby Study data in order to ascertain sociodemographics, pre-pregnancy height and weight, and GWG. The research team met regularly when the interviews were being conducted to discuss emerging themes, determine if/how the interview questions needed to be modified to explore new ideas, and to reach agreement on when thematic saturation was reached. The interviews were professionally transcribed. Two members of the research team (CHC, JLK) independently analysed each transcript, using thematic analysis to identify emergent themes related to dietary habits, physical activity, and self-monitoring habits during pregnancy for women who achieved and exceeded recommended GWG.

Results

Participant characteristics

Participants were 14 women who were overweight and 15 women who were obese prior to pregnancy [median pre-pregnancy BMI of 30.0 kg/m²(range 25.0–48.7 kg/m²)] (Table 2). Nine of the 14 overweight women and 9 of the 15 obese women exceeded recommended GWG (median GWG was 35 lbs (range 16–60 lbs) and 25 lbs (range 7–55 lbs) for overweight and obese women, respectively). Women were between 4 and 27 months postpartum at the time of the interview. The themes that emerged from the qualitative analysis were related to dietary habits, physical activity habits, and self-monitoring of weight gain during pregnancy (Table 3).

Dietary habits

Clear differences emerged in the dietary habits of women with recommended versus greater than recommended GWG. Women with excessive GWG welcomed “eating-for-two,” and often took this adage quite literally, resulting in significant increases in intake compared with their pre-pregnancy dietary habits. An overweight woman with excessive GWG said:

“I was eating for two, so I could eat double. I allowed myself to eat way more than I ever would had I not been pregnant, thinking I will show quicker, and I was excited to be pregnant. I was like, ‘I’m pregnant, I can eat whatever I want.’”

An obese woman with excessive GWG described these eating habits:

“I would eat when I was hungry, and eat whatever I wanted. I would eat ice cream for lunch, or whatever I was craving.”

Another obese woman who exceeded recommended GWG described these changes from her pre-pregnancy dietary habits:

“Before [pregnancy] I was really watching what I was eating. Once I was pregnant, I definitely slacked off, or got more lenient with myself...I went more for what I was craving, and what I thought I wanted at that time. As far as eating habits, I was snacking a lot more, and eating things that weren't necessarily good for me, just because I was craving it.”

As expected, there were women who experienced morning sickness during their pregnancies. These women did not believe this affected their overall GWG, and in some cases may have even contributed to gaining too much weight. For example, one obese woman who exceeded recommended GWG said she did not eat very much for the first 12 weeks of pregnancy, but then started eating significantly more in the 2nd trimester because she “wasn't feeling sick anymore” and was “making up for lost time.”

Women achieving recommended GWG described clearly defined plans of how they were going to eat during pregnancy. This may have been a significant change from their pre-pregnancy dietary habits or a continuation of an already regimented eating behaviour. Women with recommended GWG reported having the same caloric intake as prior to pregnancy, or only slightly more. Two women reported reducing caloric intake during pregnancy. One overweight woman with appropriate GWG who decreased her overall caloric intake said:

“I put more time and effort into my eating choices,... it was definitely a very conscious decision. I trying to get a variety of good foods, and make those choices part of my every day decisions while I was pregnant.”

Several women with appropriate GWG reported being very conscious that “eating for two” during pregnancy was not appropriate during pregnancy. One obese woman with appropriate GWG described her approach to GWG and her pregnancy dietary habits as follows:

“I would hear of people who gained 60 pounds, because they took it as a license to go ahead and eat whatever they wanted to, and they just ate junk food the whole time. And so, I said, ‘No, that's not gonna be me. I'm gonna be very deliberate about it, and I'm gonna be healthy, and eat good, balanced meals, and good snacks.’”

Most women with recommended GWG made deliberate efforts to not increase their portion sizes and usually reported eating smaller meals with healthy snacks throughout the day. Each of these women reported increasing intake of fruits and vegetables, whole grains, and some proteins, while limiting sweets, carbohydrates, and fats. While these dietary adjustments were intentional for their goals of attaining a healthy pregnancy and avoiding excessive GWG, women also described the small frequent meals as an effective way to combat morning sickness and heartburn symptoms associated with pregnancy.

Of note, all women, regardless of GWG, reported compliance with avoiding foods they were instructed by their prenatal providers to avoid during pregnancy, such as raw/undercooked meats, lunchmeats, soft cheeses, mercury-containing fish, and caffeine.

Physical activity habits

There were also distinct physical activity habits among women with appropriate versus excessive GWG. Women with excessive GWG universally exercised less or remained sedentary during pregnancy—only one of the 18 women with excessive GWG reported consistent and regular exercise throughout pregnancy. While several women with excessive GWG reported they were physically active during pregnancy, further questioning revealed that they were far from meeting the federal guideline recommendations of 150 min of moderate-intensity physical activity per week [17], with physical activities describes as casual walking for 5 min a day, standing while at work, stretching, and light yoga.

Most (7/11) of the women who achieved recommended GWG either continued their levels of pre-pregnancy physical activity or increased levels of physical activity. As with their dietary habits, women who achieved recommended GWG had very conscious and deliberate plans for exercise during pregnancy. One overweight woman with recommended GWG who reported moderate-paced, hour-long walks as her main source of exercise during pregnancy stated:

“I made decisions to go and do more exercise than I had been doing, which had been none, so just making some decision to take some walks... I definitely prioritized walking as the main [exercise] that I did, which was significantly more than I had been doing pre-pregnancy.”

While some women continued the types of exercise they were doing previously, other women modified their physical activity to what they found was more suitable and comfortable during pregnancy. Brisk walking was the most popular form of exercise, which women reported they could comfortably do throughout pregnancy. Women also reported other types of aerobic exercise, such as using an elliptical machine, swimming, running, cardio-endurance classes; however most women reported not being able to maintain these forms of exercise throughout the entire pregnancy.

Self-monitoring of weight gain during pregnancy

All women reported being weighed at each of their prenatal care visits; however, some women expressed more interest in making note of their weight and tracking their weight gain than others. About half of the women in the sample reported self-monitoring their weight gain during pregnancy (6/11 women with recommended GWG and 10/18 women with excessive GWG reported self-monitoring), in that they were consistently aware of their measured weight during their prenatal care visits or at home, and kept track of those weights either mentally or in a written log. Several women additionally reported weighing themselves at home. While the amount and style of self-monitoring seemed similar among women who had both recommended and excessive GWG, women with appropriate GWG tied their self-monitoring to appropriate GWG goals (7/11 women with appropriate GWG had appropriate GWG goals for their pre-pregnancy BMI), while women with excessive

GWG tied their self-monitoring to GWG goals that were too high for their pregnancy BMI (only 5/18 women with excessive GWG had appropriate GWG goals for their pre-pregnancy BMI).

Both women who had appropriate and excessive GWG reported getting feedback from their prenatal providers that their weight gain was appropriate. In fact, several women with excessive GWG were concerned about gaining too much weight, but were reassured by their providers that everything was okay. One obese woman with excessive GWG said:

“I was concerned that I was gaining too much [weight], but the doctor always said it was okay, so I believed them.”

One overweight woman who with excessive GWG said:

“I was concerned and I was significantly bigger than I should’ve been, but ultrasounds [were done] to check that everything was okay, and the baby wasn’t too big. So I was concerned, but [my concern] really wasn’t justified.”

Thus, self-monitoring of weight gain during pregnancy seemed to be an important aspect of achieving appropriate GWG, but only in the context of appropriate GWG goals and appropriate feedback from prenatal providers.

Discussion

The majority of U.S. pregnant women currently exceed the GWG recommendations set forth by the IOM [6]. Using qualitative methodology, this study identifies the habits of overweight and obese women who succeeded at achieving recommended GWG, compared with women with excessive GWG. Women achieving recommended GWG had deliberate dietary plans consisting of small meals and frequent snacks with minimal to no changes in overall calorie intake, and were physically active. Conversely, women with excessive GWG had GWG goals that were too high, “ate-for-two” with significant liberalisation of eating and unhealthy snacking, and were sedentary. Women who achieved recommended GWG had GWG goals consistent with the IOM guidelines, and some used self-monitoring techniques to track their progress toward those goals.

Interventions that can help women achieve recommended GWG are desperately needed. The habits of women who successfully achieve recommended GWG can be tested in future GWG interventions, along with strategies for overcoming barriers [6]. Based on the study findings, we support the development of interventions that occur very early in pregnancy or even before pregnancy. Appropriate goal setting, weight self-monitoring, and receiving appropriate feedback is important. Women should be cautioned against “eating-for-two” and large calories increases, but rather given tips for how to only increase calories modestly. Women should be encouraged to follow the federal guidelines for physical activity, which recommend 150 min of moderate-intensity physical activity weekly.

A significant barrier to instituting these habits is the deeply ingrained beliefs about appropriate behaviours during pregnancy that women, their support network, and even their prenatal providers may have and reinforce. Conventional wisdom describes pregnancy as a

time women should “eat-for-two” in order to have healthy fetal growth. For women with normal pre-pregnancy weight, the American College of Obstetricians and Gynecologists recommends an extra 300 calories per day to achieve the recommended GWG [20]—even less is needed for women overweight or obese prior to pregnancy. Making appropriate dietary goals can thus be very challenging when pregnant women are encouraged to “eat-for-two.” Likewise, conventional wisdom also suggests that pregnant women should limit their physical activity—even their prenatal providers deliver messages that they should be cautious with exercise during pregnancy [18]. Overcoming these conventional beliefs will be challenging, but is necessary.

We studied a convenience sample of first time mothers in Pennsylvania, so a limitation is that our results may not be generalisable to later order pregnancies or pregnant women’s experiences in other parts of the country. The women in our sample were nearly all white, married, and highly educated; thus, the results may not be representative of women of more sociodemographically diverse backgrounds. However, qualitative methodology is not intended to be representative, but rather to generate ideas and identify themes that may not be achieved through quantitative inquiry. Another limitation is that women were interviewed after pregnancy, so their responses may have been subject to recall bias. The major strength of our study is use of rich qualitative methodology and the inductive approach of positive deviance to identify habits to overcome limitations of current interventions through the development of new approaches. Also, we focused on the health habits of overweight and obese women, who have been particularly affected by the rise in GWG.

Our study supports incorporating careful goal-setting and self-monitoring of diet and physical activity into future GWG intervention. GWG interventions have potential for success given that pregnancy represents a “teachable moment” [21], and a short time frame behavioural modification can have significant impact on both pregnancy-related outcomes and long-term weight management.

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References

1. Rooney BL, Schauburger CW, Mathiason MA. Impact of perinatal weight change on long-term obesity and obesity-related illnesses. *Obstet Gynecol.* 2005; 106(6):1349–1356. [Epub 02.12.05]. [PubMed: 16319262]
2. Mamun AA, Kinarivala M, O’Callaghan MJ, Williams GM, Najman JM, Callaway LK. Associations of excess weight gain during pregnancy with long-term maternal overweight and obesity: evidence from 21 y postpartum follow-up. *Am J Clin Nutr.* 2010; 91(5):1336–1341. [Epub 20.03.10]. [PubMed: 20237138]

3. Linne Y, Dye L, Barkeling B, Rossner S. Weight development over time in parous women—the SPAWN study—15 years follow-up. *Int J Obes Relat Metab Disord*. 2003; 27(12):1516–1522. [Epub 25.11.03]. [PubMed: 14634683]
4. Amorim AR, Rossner S, Neovius M, Lourenco PM, Linne Y. Does excess pregnancy weight gain constitute a major risk for increasing long-term BMI? *Obesity (Silver Spring)*. 2007; 15(5):1278–1286. [Epub 15.05.07]. [PubMed: 17495204]
5. Crane SS, Wojtowycz MA, Dye TD, Aubry RH, Artal R. Association between pre-pregnancy obesity and the risk of cesarean delivery. *Obstet Gynecol*. 1997; 89(2):213–216. [PubMed: 9015022]
6. IOM (Institute of Medicine) and NRC (National Research Council). *Weight gain during pregnancy: reexamining the guidelines*. Washington, DC: The National Academies Press; 2009.
7. Stothard KJ, Tennant PW, Bell R, Rankin J. Maternal over-weight and obesity and the risk of congenital anomalies: a systematic review and meta-analysis. *J Am Med Assoc*. 2009; 301(6):636–650.
8. Weiss JL, Malone FD, Emig D, Ball RH, Nyberg DA, Comstock CH, et al. Obesity, obstetric complications and cesarean delivery rate—a population-based screening study. *Am J Obstet Gynecol*. 2004; 190(4):1091–1097. [PubMed: 15118648]
9. Chu SY, Callaghan WM, Bish CL, D'Angelo D. Gestational weight gain by body mass index among US women delivering live births, 2004–2005: fueling future obesity. *Am J Obstet Gynecol*. 2009; 200(3):271, e1–271, e7. [Epub 13.01.09]. [PubMed: 19136091]
10. Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Kirmeyer S, et al. Births: final data for 2005. *National vital statistics reports: from the Centers for Disease Control and Prevention, National Center for Health Statistics. Natl Vit Stat Syst*. 2007; 56(6):1–103. [Epub 19.02.08].
11. Skouteris H, McCabe M, Milgrom J, Kent B, Bruce LJ, Mihalopoulos C, et al. Protocol for a randomized con-trolled trial of a specialized health coaching intervention to prevent excessive gestational weight gain and postpartum weight retention in women: the HIPPA study. *BMC Public Health*. 2012; 12:78. [Epub 26.01.12]. [PubMed: 22272935]
12. Phelan S, Phipps MG, Abrams B, Darroch F, Schaffner A, Wing RR. Randomized trial of a behavioral intervention to pre-vent excessive gestational weight gain: the Fit for Delivery Study. *Am J Clin Nutr*. 2011; 93(4):772–779. [Epub 12.02.11]. [PubMed: 21310836]
13. Mottola MF, Giroux I, Gratton R, Hammond JA, Hanley A, Harris S, et al. Nutrition and exercise prevent excess weight gain in overweight pregnant women. *Med Sci Sports Exe*. 2010; 42(2):265–272. [Epub 20.01.10].
14. Skouteris H, Hartley-Clark L, McCabe M, Milgrom J, Kent B, Herring SJ, et al. Preventing excessive gestational weight gain: a systematic review of interventions. *Obes Rev*. 2010; 11(11): 757–768. [Epub 01.10.10]. [PubMed: 20880128]
15. Kraschnewski JL, Chuang CH, Downs DS, Weisman CS, McCamant EL, Baptiste-Roberts K, et al. Association of prenatal physical activity and gestational weight gain: results from the first baby study. *Women's Health Issues*. 2013; 23(4):e233–e238. <http://dx.doi.org/10.1016/j.whi.2013.04.004>. [PubMed: 23816153]
16. Stuckey HL, Boan J, Kraschnewski JL, Miller-Day M, Lehman EB, Sciamanna CN. Using positive deviance for determining successful weight-control practices. *Qual Health Res*. 2011; 21(4):563–579. [Epub 20.10.10]. [PubMed: 20956609]
17. Physical Activity Guidelines Advisory Committee. *Physical Activity Guidelines Advisory Committee Report*, 2008. Washington, DC: U.S. Department of Health and Human Services; 2008.
18. Stengel MR, Kraschnewski JL, Hwang SW, Kjerulff KH, Chuang CH. “What My Doctor Didn’t Tell Me”: examining health care provider advice to overweight and obese pregnant women on gestational weight gain and physical activity. *Womens Health Issue*. 2012; 22(6):e535–e540. [Epub 06.11.12].
19. Kjerulff KH, Velott DL, Zhu J, Chuang CH, Hillemeier MM, Paul IM, et al. Mode of first delivery and women’s intentions for subsequent childbearing: findings from the First Baby Study. *Paediat Perinat Epidemiol*. 2013; 27:62–671. <http://dx.doi.org/10.1111/ppe.12014>.

20. American College of Obstetricians and Gynecologists. Nutrition during pregnancy; 2011. Available from: www.acog.org.
21. Phelan S. Pregnancy: a “teachable moment” for weight control and obesity prevention. Am J Obstet Gynecol. 2010; 202(2):135, e1–135, e8. [Epub 18.08.09]. [PubMed: 19683692]

Table 1

Interview questions: diet and physical activity habits during pregnancy.

<p>Diet habits</p> <p>Did you change your eating habits during pregnancy compared to before pregnancy?</p> <ul style="list-style-type: none"> • Tell me about any specific changes you made to your diet • Did your caloric intake increase or decrease? • Did the proportions you were eating in each food group change? • Did these dietary changes fluctuate throughout your pregnancy (by trimester) or did they stay relatively constant? • Any foods that you specifically avoided or specifically tried to increase your intake of? • Did you experience cravings? • Would you say you had some sort of dietary goal for pregnancy? • How successful did you feel in this goal? <p>Did you have morning sickness of nausea during your pregnancy?</p> <ul style="list-style-type: none"> • If so, for how long? • How did this affect your eating? <p>Physical activity habits</p> <p>Do you think you changed your activity/exercise during pregnancy compared to before pregnancy?</p> <ul style="list-style-type: none"> • What types of physical activity did you engage in? (how often, how long, etc.) • What was more effective for exercise—a group setting or individual? Which did you prefer and why? • What type of physical activity would you most highly recommend to other pregnant women? <p>Self-Monitoring</p> <ul style="list-style-type: none"> • Did you monitor your weight during pregnancy? How?
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Table 2Participant characteristics, $N = 29$.

Characteristic	<i>N</i> (%)
Prepregnancy BMI category	
Overweight	14 (48)
Obese	15 (52)
Gestational weight gain	
Exceeded recommended GWG	18 (62)
Did not exceed recommended GWG	11 (38)
Age, years—median (range)	29 (21–35)
Education	
Less than college graduate	5 (17)
College graduate or higher	24 (83)
Race	
White	28 (97)
Other	1 (3)
Marital status	
Married	28 (97)
Not married	1 (3)

Table 3

Behavioural habits of women with excessive and healthy gestational weight gain.

Topic	Behavioural habits	
	Healthy GWG (<i>n</i> = 11)	Excessive GWG (<i>n</i> = 18)
Dietary habits	<p>Slight increase, no change, or decrease in calorie intake</p> <p>All women wanted to eat healthier, defined as more fruits/vegetables, whole grains, proteins Diet changes were planned and deliberate—smaller meals with snacks, avoidance of large meals</p> <p>All women reported compliance with avoiding raw/undercooked meats, lunchmeats, and soft cheeses, and limiting mercury-containing fish and caffeine</p>	<p>Women were “eating-for-two”—all women reported a significant increase in calories to get enough nutrients for the baby (no concern that they were getting too much)</p> <p>Less healthy eating was reported due to cravings for sweets and junk food Increase in high calorie drinks (milk and juice) that were thought to be healthy</p> <p>Leniency during pregnancy with calorie intake, listening more to what their body wanted</p>
Physical activity habits	<p>Most (7/11) women increased or maintained prepregnancy physical activity levels Some women continued prepregnancy types of physical activity, other women modified physical activity to be more suitable/comfortable during pregnancy</p>	<p>Nearly all (17/18) women exercised less (or continued to be sedentary) during pregnancy Most physical activity was low-aerobic intensity (e.g., casual walking)</p>
Self-monitoring of weight gain during pregnancy	<p>6/11 women were self-monitoring GWG (7/11 women had appropriate GWG goals) Self-monitoring usually involved a written log Positive feedback from prenatal providers that weight gain was appropriate</p>	<p>10/18 women were self-monitoring GWG (5/18 women had appropriate GWG goals) Self-monitoring without written logs Positive feedback from prenatal providers that weight gain was appropriate or that baby was healthy so excess weight gain was okay</p>