

# Embodied Motherhood: Exploring Body Image in Pregnant and Parenting Youth



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## ABSTRACT

**Study Objective:** There is a paucity of research on body image in pregnant and parenting youth (PPY). Study objectives were to examine: (1) profiles of PPY regarding body image, depression, and eating behaviors and any effects of age and pregnancy status on results; and (2) PPY perceptions of body image.

**Design, Setting, Participants, Interventions, and Main Outcome Measures:** Demographic data and scores from measures related to self-esteem, body esteem, eating behaviors, and depression were collected from 101 PPY from 2 urban centers. Two focus group sessions were held to further explore survey findings. Sessions were audio-recorded and transcribed verbatim for analysis.

**Results:** Participants (mean age, 19.8 years) reported a history of depression (79/101; 78.2%), anxiety (75/101; 74.3%), drug/alcohol abuse (45/101; 44.6%), and eating disorder (32/101; 31.7%). Parenting (nonpregnant; n = 64) participants had lower body esteem ( $P = .041$ ) and more eating disorder behaviors ( $P = .026$ ) compared with pregnant (n = 37) participants. A history of depression or eating disorder both independently increased risk for lower body esteem and self-esteem and higher depressive symptoms in pregnant youth. Four dominant themes emerged from qualitative data: (1) adapting to rapidly changing bodies; (2) inter-relationship between body image and mood; (3) added attention and perceptions of pressure to return to prepregnancy body size; and (4) reconciling change and striving to find a new normal.

**Conclusion:** This study highlights the importance of exploring past and current body image, mood, and eating disorder behavior in PPY for risk of current mental health issues. Future research exploring prepregnancy depression, eating disorder, body esteem, and depression in pregnant youth are needed.

**Key Words:** Body image, Adolescent pregnancy, Teenage parents

## Introduction

Body image is a complex and multifaceted construct, with perceptual, affective, cognitive, social, and behavioral components.<sup>1-3</sup> In contemporary Western society there has been increasing focus placed on body appearance, most notably on body shape and weight.<sup>4</sup> Forming a positive body image, or body satisfaction, is an important developmental milestone in adolescence. That said, up to 50% of girls and undergraduate women report being dissatisfied with their bodies.<sup>5-7</sup> This might be linked to the significant physical changes adolescents experience during puberty,<sup>8</sup> and to the increased awareness and internalization of socially prescribed ideal beauty standards that occur during this period.<sup>6</sup>

Pregnancy is another notable time in the development lifecycle when marked physical changes can lead to concomitant changes in body image. For example, some

women manage pregnancy-related body changes by acknowledging the functionality of the pregnant body,<sup>9</sup> whereas others experience a decline in body satisfaction.<sup>10,11</sup> How a woman experiences her body and body image might be trimester-specific, with many facing higher levels of body dissatisfaction in early pregnancy and feeling less dissatisfaction in late pregnancy.<sup>12-14</sup> Research also supports that some women have unrealistic expectations regarding their body in the postpartum period, and body dissatisfaction is common at this time.<sup>15</sup> Moreover, a woman's body image before pregnancy can predict the body image trajectory throughout pregnancy<sup>16</sup> such that women with negative prepregnancy body image maintain a poor body image over time.<sup>17,18</sup> Researchers have also suggested an inverse relationship between depression and body image satisfaction throughout pregnancy.<sup>17,19</sup> Depressive symptoms during early pregnancy predict body dissatisfaction in late pregnancy and postpartum,<sup>12,16</sup> and poor body image during early pregnancy is associated with more depressive symptoms in late pregnancy.<sup>20,21</sup>

Although the physical changes of pregnancy are known to affect adult women in different ways, little is known about the potential effects these bodily changes have on pregnant

Authors have no conflicts of interest to declare.

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adolescents. The scarce literature available on body image throughout adolescent pregnancy is conflicting; some studies suggest that body image dissatisfaction increases during pregnancy in adolescents,<sup>22–25</sup> and others have shown that most pregnant adolescents had a positive body image.<sup>26,27</sup> The few studies in this area vary in methods, design, and patient demographic characteristics,<sup>28</sup> rendering comparisons and the generalization of conclusions problematic.

Depending on their individual circumstances, pregnant adolescents might be at higher risk for poor pregnancy and perinatal outcomes.<sup>23,29</sup> Because poor body image during pregnancy can be associated with unhealthy weight control behaviors (ie, dieting or disordered eating behaviors), as well as depressive symptoms in pregnancy and postpartum,<sup>20,21,30,31</sup> exploring adolescent body image throughout pregnancy is vital in improving outcomes in this already high-risk group.

To our knowledge, this is the largest study to date to examine relationships between body image, mood, and eating behaviors quantitatively and qualitatively in pregnant and parenting youth (PPY). Our objectives were to: (1) examine the psychological profiles of PPY regarding body image, depression, self-esteem, and eating behaviors and cognitions; (2) examine the effects of age and pregnancy status (pregnant vs postpartum/parenting) on psychological profile results, and to compare this with published community norms for nonpregnant/parenting adolescents; and (3) qualitatively examine the perceptions of a subgroup of PPY regarding body image.

## Materials and Methods

### Design

Because little is known on the topic, we used a multi-phase, multimethod design using quantitative and qualitative methods. Data collection and analysis were conducted consecutively; phase 2 (qualitative) was shaped by and expounded on the findings from phase 1 (quantitative). More concretely, in phase 1 we surveyed a sample of pregnant and parenting adolescents at 2 community-based organizations that service PPY. Questionnaires were administered over a 7-month period and in the presence of a trained counselor. Questionnaire items covered select key dimensions including participant demographic characteristics, drug use (recreational and prescription), body esteem, self-esteem, eating behaviors, and postnatal depression (the demographic survey is shown in [Appendix A](#)). The following series of self-assessment measures validated for youth were used: Body Esteem Scale for Adolescents and Adults, Eating Attitudes Test, Edinburgh Postnatal Depression Scale (EPDS), and the Rosenberg Self-Esteem Scale. Measures were in place should a participant disclose thoughts of self-harm on the Edinburgh Postnatal Depression Scale; the supervising counselor would intervene as appropriate, following the procedures in place for crisis management. This study was approved by the hospital research ethics board.

In phase 2, we conducted semistructured focus groups with a subset of PPY to explore their perceptions of body

image. Each focus group was approximately 1 hour long and a question guide was used that was developed on the basis of the literature, expert opinion, and questionnaire results from phase 1. The focus group guide (see [Appendix B](#)) served as a starting point for group discussion, and evolved in accordance with flow and feedback. A trained qualitative researcher moderated the focus groups (C.C.), while a notetaker collected data regarding body language, tone, and areas of consensus or divergence. The sessions were audio-recorded and transcribed verbatim for analysis.

### Research Setting

The research settings are described in [Table 1](#).

### Participant Selection

We used a convenience sampling strategy to recruit participants at each research site. Eligible participants were English-speaking young women aged 13–24 years who were pregnant and/or parenting, and accessing community-based services (sites A and B in [Table 1](#)) within the city of Ottawa. Provided these criteria were met there were no exclusion criteria for the study. Study recruitment was advertised using posters, word of mouth, and through the staff at the centers (sites A and B).

### Analysis

Survey data were entered directly into REDCap and exported into IBM SPSS version 21 for analysis. Descriptive and inferential statistics were used where appropriate, including independent sample *t* tests to examine subgroup analyses. Anonymized focus group data were imported into NVivo11 (QSR International) for data management and to facilitate inductive thematic analysis.<sup>32</sup> This method of data analysis consisted of iterative cycles of reading through textual data, identifying themes in the data, coding those themes, and then interpreting the structure and content of themes.<sup>33</sup> When a preliminary set of emergent themes were identified, the research team met to discuss the findings and content of themes, and establish consensus on the coding structure. The data were then reanalyzed using the final coding structure to identify supporting quotes for each overarching theme. Last, the research team reassembled to review the final themes and select exemplar quotes for reporting

**Table 1**  
Research Setting

Site	Location/Community Details	Population Details
(A) community center that offers parenting programs and prenatal care	Lower income urban area (population approximately 16,000)	Services 450 young parents and 300 children (age younger than 4 years) per year
(B) Educational facility	Urban area with diversified income levels (population approximately 12,000)	Services 48 young mothers at one time; continuous admissions and withdrawals throughout year

purposes. To enhance the trustworthiness of our findings, we used methodologic triangulation<sup>34</sup> and maintain a detailed audit trail of all analytic and methodological decisions.

## Results

### Phase 1

Participants were 101 female pregnant or parenting youth. The mean age of the sample was 19.8 years (SD = 2.77; range, 14–25 years), with approximately half being 19 years or younger. More than a third (37/101; 37%) were pregnant at the time of the survey (mean age, 19.43 years; SD = 2.85; range, 15–24 years), and 74.3% (n = 75) were already parenting. Of those who were already parenting, 76.0% (n = 57) were pregnant as a youth (younger than 19 years).

At the time of the questionnaire administration, participating PPY self-reported an average body mass index as 25.48 (SD = 5.96) with a range from 16.50 to 50.22. Additional self-report weight information showed that the highest average weight (excluding pregnancy) for this sample was 158 pounds whereas the lowest reported adult weight was an average of 123 pounds.

Many of the youth who participated in this study reported either currently struggling with a mental health disorder or having had a history of a mental health disorder (Table 2). Comparisons with published norms or clinical cutoffs suggest that PPY report mood symptoms that fall into the

**Table 2**  
Demographic Characteristics of Pregnant and Parenting Youth (n = 101)

Characteristic	n	%
Currently pregnant	37	36.6
Currently have children	75	74.3
1 Child	53	70.7
2 Children	15	20.0
3 Children	5	6.7
4 Children	2	2.7
Living on own	34	33.7
Living with partner	22	21.8
Shelter	19	18.8
Government assistance as primary source of income	68	67.3
Attending school	55	55.0
Full-time status	40	72.7
Part-time status	15	27.3
Currently experiencing*		
Depression	35	34.7
Anxiety	58	57.4
Substance abuse	5	5.0
Eating disorder	7	6.9
Attention-deficit/hyperactivity disorder	22	21.8
Learning disorder	17	16.8
History of*		
Depression	79	78.2
Anxiety	75	74.3
Substance abuse	45	44.6
Eating disorder	32	31.7
Attention-deficit/hyperactivity disorder	32	31.7
Learning disorder	26	25.7
Eating disorder behaviors*		
Bingeing	23	22.8
Purging	28	27.7
Laxatives, diet pills, or diuretic use	15	14.9
Past treatment for an eating disorder	10	10.0
Current use of medication	31	30.7

\* See Appendix A for specific wording of questions.

clinical range, but within “normal” ranges for self-esteem, body image, and eating disorder (ED) behaviors<sup>35</sup> (Table 3). When asked how an individual felt about their body since their most recent pregnancy/or current pregnancy, 23 of the 101 participants (22.7%) said they felt the same, 30 (29.7%) felt more positively, and 36 (35.6%) felt more negatively than they did before their pregnancy.

Several exploratory subgroup analyses were conducted to better understand the characteristics of PPY. An examination of differences between a younger cohort (19 years and younger) and an older cohort (20 years and older) of PPY revealed no statistically significant differences between the groups. A subanalysis between those who were pregnant and those who were not was also performed. Pregnant youth reported lower ED symptoms and greater body esteem than their parenting, nonpregnant counterparts. Details of this analysis are shown in Table 4. Further subanalysis on differences among those who reported current or past depression/anxiety issues compared with those who did not have such symptoms was also conducted, stratified according to pregnancy status. Results of the independent sample *t* tests revealed that those who were pregnant who reported a history of depression (n = 25) had significantly lower body esteem (*t* for appearance = 2.56; *P* = .016; *t* for weight satisfaction = 2.43; *P* = .020; *t* for attribution = 2.16; *P* = .037) and self-esteem (*t* = 2.37; *P* = .024) and higher levels of depressive symptoms (*t* = −3.03; *P* = .005) than pregnant teens who did not have a history of depression (n = 12). Additionally, further subanalysis of those who were pregnant and had a history of an ED (n = 7) was also examined, with the results indicating that they report lower aspects of body esteem (*t* for appearance = 2.45; *P* = .019; *t* for attribution = 2.44; *P* = .020) and self-esteem (*t* = 2.04; *P* = .049) yet higher levels of depressive symptoms (*t* = −2.41; *P* = .021) than pregnant teens who did not have a history of an ED (n = 30). No differences were found when similar comparisons were performed among those with a history of anxiety vs those without such a history. No similar differences emerged for those who were not pregnant.

**Table 3**  
Mean (SD) of Psychological Indices

Index	Participants (n = 101), Mean (SD)	Community Norms/ Clinical Cutoffs
BESAA: general feelings about appearance	2.26 (0.97)	2.39
BESAA: weight satisfaction	2.20 (1.06)	2.69
BESAA: evaluations attributed to others	2.14 (0.63)	2.44
RSES: Self-Esteem	19.14 (6.04)	Less than 15 = low self-esteem
EAT-26: dieting subscale	5.55 (6.08)	–
EAT-26: bulimia subscale	1.24 (2.43)	–
EAT-26: oral control subscale	2.49 (3.25)	–
EAT-26: total score	9.27 (9.79)	Clinical cutoff = 20
EPDS: total score	11.38 (6.00)	Clinical cutoff = 9–13

BESAA, Body Esteem Scale for Adolescents and Adults; EAT-26, Eating Attitudes Test-26; EPDS, Edinburgh Postnatal Depression Scale; RSES, Rosenberg Self-Esteem Scale.

**Table 4**  
Subgroup Analysis of Psychological Indices Among Not Pregnant and Pregnant Youth

	Not Pregnant (n = 64), Mean (SD)	Pregnant (n = 37), Mean (SD)	t (P)
Age	19.97 (2.72)	19.43 (2.85)	0.94 (ns)
<b>General feelings about appearance</b>	<b>2.10 (1.04)</b>	<b>2.55 (.78)</b>	<b>−2.51 (.014)</b>
Weight satisfaction	2.06 (1.11)	2.44 (.93)	−1.75 (ns)
Evaluations attributed to others	2.12 (.55)	2.18 (.75)	−.445 (ns)
Self-esteem	18.84 (6.25)	19.65 (5.71)	−.64 (ns)
<b>Dieting subscale</b>	<b>6.69 (6.82)</b>	<b>3.57 (3.88)</b>	<b>2.93 (.004)</b>
<b>Bulimia subscale</b>	<b>1.56 (2.89)</b>	<b>.68 (1.13)</b>	<b>2.18 (.032)</b>
Oral control subscale	2.66 (3.55)	2.19 (2.65)	.70 (ns)
<b>Total EAT-26 score</b>	<b>10.92 (11.04)</b>	<b>6.43 (6.31)</b>	<b>2.60 (.011)</b>
Edinburgh depression score	11.39 (6.42)	11.35 (5.29)	.03 (ns)

EAT-26, Eating Attitudes Test-26.

Data in bold denotes statistically significant differences between groups.

### Phase 2

Three focus group sessions were conducted with a total of 19 participants. The mean age of participants was 19.3 years (range, 15–25 years). Over a quarter (5 of the 19 participants, 26.3%) were pregnant at the time of the focus group (mean age = 17.8 years; range, 16–20 years) with a mean gestation of 5.6 months. Most of the participants (15/19, 78.9%) were already parenting, with a mean number of 1.4 children each (range, 1–5 children). Four themes

emerged across all focus groups: (1) adapting to rapidly changing bodies; (2) the inter-relationship between body image and mood; (3) added attention and perceptions of pressure to return to prepregnancy body size; and (4) reconciling change and striving to find a new normal. A summary of these findings is described briefly, with illustrative quotes according to theme in Table 5.

Pregnancy was perceived as a tumultuous time for the young women; physically, socially, and emotionally. Several

**Table 5**  
Qualitative Analysis Themes and Exemplar Quotations from Pregnant and Parenting Youth

Theme	Exemplar Quotation
(1) Adapting to rapidly changing bodies	“You were just getting used to the body you had then, and then you add something else drastic on top of it. It's just a lot of changes all at once.” FG1 “Especially when you're young, your body's different, and then you have a baby and you're still growing. It's like: is this just my body growing or is this because I had a baby? It's kind of confusing.” FG1
(2) The inter-relationship between body image and mood	“If you're 'feeling down,' messages about body images have a greater impact.” FG1 “Sometimes people get so focused on losing weight that they don't take care of themselves mentally. They just get so obsessed with losing weight and they're going through depression and everything else, and it's a lot.” FG2 “Generally if you're depressed you just start to feel bad about everything which can lead to how you feel about yourself. Or you're not taking care of yourself properly and you're aware of that so you just start feeling worse about yourself.” FG1
a. The cycle of unhealthy weight loss measures and poor body image	“I was initially one of those people [using unhealthy weight loss strategies] and then my friend was also but she was more into...I would say self-harm. I got out of the self-harm but I was still focused on my body but my friend was very hard because she was working on her body, she was bigger, and she ended up going from like 165 to like 100 pounds and it was bad because it was really quick. She just stopped eating, stopped doing everything and she had bruises all over her body that were noticeable. Then she got even more depressed because now she has scabs everywhere and now she has cuts everywhere and people were taunting her about like her bruises and her scars and how small she was now. And she was like: “I wish I'd never lost so much weight” and then she tried to overeat and make herself puke a lot... bulimic. She started puking up everything.” FG3
(3) Added attention and perceptions of pressure to return to prepregnancy body size	“When people say: “Oh you've had 4 kids, it doesn't look like it.” That's a compliment for me but at the same time then I think at it and...but I am 40 pounds more than what I started out at. It's a positive comment but it turns into a negative because of my beliefs about me being fat. And I try to tell people: “this is not me, this is not who I am”, and it's just that people don't see it that way.... And they don't see it like I see it...I know I'm overweight.” FG3 “A lot of the time the first thing people will say to you is: ‘oh you look good for someone who just had a baby’ but it's like, what is that supposed to mean? It just becomes more of a topic because your body is just like a center of attention.” FG1
b. Physician role in supporting healthy weight and body image	“My doctor has always known me as small, on the smaller side because I had a high metabolism. I could never gain weight, like I tried to gain weight but I couldn't and then I got pregnant and that's when I started gaining. So she's just like more about the numbers and size versus how I feel.” FG3 “I find that doctors need to be more open. My doctor never really supported—like during my pregnancy, at one point I started to gain weight quite fast, and she just told me: “well you're only supposed to have like an extra glass of milk; you're not supposed to be eating more” and this and that. I find that that really bothered me. If I'm hungry I'm not going to starve myself but it's the fact of telling me to eat better is not always ideal, or saying oh go to the gym is not always ideal. So like other kinds of supports were never handed to me. Like sure, you want to watch my kid? I'll go to the gym for an hour.” FG2
(4) Reconciling change and striving to find a new normal	“Sometimes I go on Facebook and see the body I had before the baby, but then I remind myself that it was worth it because my son makes me so happy. I was also dealing with depression before I got pregnant because I guess I needed something to love that would love me back. And my son is amazing—yeah sure I feel like I destroyed my own body by getting pregnant but at the same time, half the time I couldn't care less because I have this amazing little person. But yeah sure, it would be nice to go back but realistically, as long as my son's happy I couldn't care less if I don't go back to what I want to.” FG2 “I think that when you become a mom or a parent at all, you need to reinvent yourself. Because you're still you but you're somebody's mom and you have to find the happy medium in that because no matter what you do you're still going to be someone's mom and you're still going to be you. So, you have to figure out like where you stand.” FG2

PPY emphasized the rapid physical changes they experienced with pregnancy, and how their postpartum bodies no longer mirrored their prepregnancy form. Participants believed that an intricate combination of factors influenced body image, including self-esteem, mood, mental health, comparing self to others, social influences (including comments made by peers, family, and the general public), the media, and social media. The influential nature of media and social messages were often moderated or mitigated by mood, with the effects of messaging varying considerably.

All of the young mothers felt pressure to return to their pre-baby body size or to lose weight; this pressure corresponded with the amount of weight gained during pregnancy. Some PPY felt supported by their health care providers (HCPs) regarding prenatal weight gain and postpartum weight loss, whereas others felt judged. PPY reported that their bodies received considerable attention and they were acutely aware of comments made about their form; even remarks intended as compliments often rendered the recipient uncomfortable. Although participants did not discuss disordered eating behaviors at length or share firsthand accounts, they unanimously reported having friends or peers who used unhealthy weight loss strategies and struggled with body image. Although the PPY in this study believed that body image issues were pervasive and not limited to new moms, they spoke at length about the need for acceptance and coming to terms with new norms.

## Discussion

Adolescence is a time of rapid emotional and physical change, and formation of body image is influenced by many internal and external factors. To our knowledge this is the first large study to explore quantitatively and qualitatively how adolescents experience body image throughout pregnancy and postpartum, and how this relates to mood and eating behaviors.

Ongoing and former mental health conditions were prevalent in our sample, which supports existing literature that shows that PPY have high past and current rates of mental health conditions, most commonly depression and anxiety. Several studies have explored the relationship between adolescent pregnancy and depression, substance abuse, and post-traumatic stress disorder,<sup>23,36,37</sup> highlighting the importance of identifying mental health concerns to provide the required support. Less is known about the prevalence of past or current EDs in PPY. We were surprised that our sample reported a higher rate of a past ED ( $n = 32/101$ ; 30%) than that of the general adolescent/young women population, with the estimated community prevalence of anorexia nervosa (AN) and bulimia nervosa being 0.3% and 1.0%, respectively.<sup>38</sup> One study reported that a diagnosis of AN or bulimia nervosa in adult women both independently increased the risk for unplanned pregnancy,<sup>39</sup> however, further research on the relationship between a history of an ED and early childbearing is needed.

When comparing pregnant youth with parenting (nonpregnant) youth, pregnancy was associated with higher body esteem. This is in agreement with the adult literature, which

shows that some women experience higher body esteem in pregnancy. This could be because of a number of reasons including that, perhaps, pregnant women are able to see the purpose and functionality of their body changes, perceive a sense of maternal responsibility, have more emotional support, and/or feel less societal pressure when pregnant to conform to the “thin ideal.”<sup>9,40</sup> This also emerged as a thread of discussion in the focus group sessions, because participants shared that although weight gain was encouraged during pregnancy, they faced immense pressure to lose weight rapidly in the postpartum period. Many participants described a self-reinforcing cycle in which the perceived external pressure to return to prepregnancy form had an effect on mood, which in turn influenced their sense of self and how they felt about their bodies. Pregnancy was also associated with lower rates of ED symptoms. Focus group data supported that young mothers focused more on weight loss behaviors than their pregnant counterparts. Some women reported becoming so determined to lose weight that they focused exclusively on their bodies, to the detriment of other aspects of their physical and mental health. More research is needed to explore the factors that might reduce or remit ED symptoms for some adolescents during pregnancy, and worsen or trigger new onset for others.

To our knowledge there are only 4 case reports to date that focus on adolescent mothers with EDs. The relationship between the adolescent's pregnancy and their diagnosis of an ED varied in all of the cases, with one developing AN in the postpartum period,<sup>25</sup> one developing AN in the context of a concealed pregnancy,<sup>41</sup> one with delayed diagnosis of AN at 33 weeks of gestation,<sup>42</sup> and the other with a known diagnosis of atypical AN and a remission of symptoms during pregnancy with a relapse postpartum.<sup>43</sup> In an examination of ED prevalence in pregnant adults, a recent study showed that EDs during pregnancy were not uncommon ( $n = 69$  of 913; 7.6%; 95% confidence interval, 5.84%–9.28%), and were associated with higher rates of anxiety and depression symptoms during pregnancy.<sup>44</sup>

Many factors appear to affect the trajectory of ED symptoms in pregnancy, including a history of sexual or physical abuse,<sup>45</sup> partner relationship satisfaction,<sup>46</sup> and a diagnosis of major depressive disorder.<sup>45,46</sup> Interestingly, a recent large systematic review of the obstetrical problems associated with EDs showed that those with AN before pregnancy went into remission during pregnancy in as high as 60% of patients, with most reporting “normal” eating behaviors in pregnancy. That said, women with body dissatisfaction might not experience reprieve from this; Coker et al reported that body dissatisfaction did not improve during pregnancy for women with and without EDs.<sup>47</sup> Women with all types of EDs are at higher risk for depressive and anxiety symptoms throughout pregnancy and the postpartum period compared with those without EDs.<sup>39</sup> In adult women with histories of EDs, a history of depression and a presence of ED symptoms in pregnancy increase the risk for postpartum depression and anxiety.<sup>39,48</sup> Because research supports that women are more likely to seek treatment for a comorbid psychiatric diagnosis such as generalized anxiety disorder, obsessive compulsive disorder, or post-traumatic stress disorder

rather than for their ED,<sup>49</sup> it is imperative to screen for ED history in pregnant youth receiving services.

As a group, PPY in our study had comparable body esteem, self-esteem, and ED behaviors as measured on self-assessment tools, compared with community adolescent norms. However, further analysis of patient history revealed a subgroup more prone to concerns; pregnant youth with a history of depression and/or ED had lower body esteem, lower self-esteem, and higher depressive symptoms compared with those who did not report such a history. Our findings in this adolescent population reinforce research conducted with adult women that suggests a relationship between depression and body image<sup>19</sup> throughout pregnancy. Research in adolescents in this area continues to be limited. One small-scale study showed that adolescents with depression had more negative attitudes toward pregnancy-related weight gain compared with pregnant adolescents without depressive symptoms,<sup>27</sup> and that family support appeared to at least partially mitigate the effects of depression on attitudes toward pregnancy weight gain in adolescents. Birkeland et al also highlighted a possible association between depressive symptoms and body shape concern in pregnant adolescents.<sup>23</sup> Identifying this subpopulation of pregnant teens with a history of depression or ED is important for the monitoring and structuring of adequate mental health support throughout pregnancy.

The HCP role emerged as an important thread of discussion during focus group sessions, with divergent discussions with some participants who reported feeling well supported by their HCPs and others who reported feeling judged. Some of the adolescents noted that their HCPs commented on their weight, as many other people in their lives were doing, but failed to offer actionable supports or strategies for stable weight gain during pregnancy or weight loss in the postpartum period. Others reported positive encounters and felt as though their HCPs worked with them to develop weight management plans. That said, participants were in agreement that their HCPs tended to focus more on the numbers and less on discussions of body image and body esteem. All participants felt that these discussions should be approached with sensitivity and tailored to patient needs. Research acknowledges the significance of the physician role and the importance of open communication around weight and body image in antenatal health care.<sup>9</sup>

#### Limitations

We acknowledge that our study had a number of limitations. We did not collect demographic data related to the race and ethnicity of our study sample, and this is a limitation because culture helps shape the context in which body image is formed. We did not examine past and current trauma or exposure to violence in our sample, which is known to be common in this population,<sup>36</sup> as well, we relied on self-reported history of mental health conditions. Additionally, the sample was a convenience sample and therefore might not be generalizable to all PPY. In terms of analysis, the samples sizes used in our subanalyses were low, however, because of the limited research in this area, our findings of trends are important. In terms of the focus

group methods, our participants appeared very open, at ease, and engaged during the discussion, but many hesitated to share personal anecdotes and rather opted to discuss behaviors they observed in peers and friends. This could be related to social desirability bias, a known predisposition for participants to under-report what they perceive as undesirable tendencies. That said, we believe that our focus group methods did enhance the richness and depth of discussion, because participants were able to build on each other's experiences and insights.

#### Conclusion

This study adds to the very limited research regarding adolescents' experience with body image, mood, and eating behavior during pregnancy and early motherhood, and can help inform future program development for PPY struggling with poor body image. This study highlights the importance of identifying a subgroup of pregnant youth potentially more vulnerable to low body esteem and depression in pregnancy, namely those with a history of EDs and/or depression, and the need for HCPs to screen for these during antenatal care. Future research is needed to continue exploring the relationships between adolescent body image and mood during pregnancy and postpartum and how these relationships affect maternal and child outcomes.

#### Implications and Contribution

This study adds to the research gap on body image, mood, and eating behaviors in PPY, with findings indicating that pregnancy might be protective against poor body esteem and disordered eating behaviors. Despite this, pregnant youth with history of depression or ED are still at risk.

#### Acknowledgments

The authors thank staff and clients at St Mary's Home and Youville Centre for their participation in this study. Preliminary versions of the data reported in this article were presented, in part, at the American Academy of Child and Adolescent Psychiatry 63rd Annual Meeting, New York, New York (October 2016), and at the Canadian Paediatric Society 93rd Annual Conference, Charlottetown, Prince Edward Island (June 2016).

This work was funded by Women's College Hospital, Women's Xchange grants, Toronto, Ontario, Canada.

#### Supplementary Data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jpag.2018.08.007>.

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