

Self-acceptance in pregnant and postpartum women: a comparative study

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Abstract:

Objective: The objective of this study was to evaluate the self-acceptance of pregnant and postpartum women and to compare self-acceptance between the three gestational periods and the postpartum period. **Methods:** This cross-sectional, quantitative study included 446 pregnant women (mean age 28.93±5.93 years) from the three gestational trimesters and 236 postpartum women (mean age 28.19±6.38 years) with babies up to six months of age from the state of Minas Gerais, Brazil. Participants answered a sociodemographic questionnaire, and obstetric data, information on socioeconomic status and the scores from the Self-Acceptance Scale for Pregnant Women and Postpartum Women were collected. Descriptive and comparative statistical analyses were performed to compare women in the first, second and third trimesters of pregnancy with postpartum women. **Results:** The study revealed that 24.9% and 22.9% of pregnant women and postpartum women, respectively, had low self-acceptance, whereas 31.6% of pregnant women and 33.5% of postpartum women had high levels of self-acceptance. Postpartum women showed lower self-acceptance than pregnant women in the second ($p=0.0001$) and third trimesters ($p=0.0001$). **Conclusion:** Pregnant women and postpartum women showed levels of self-acceptance ranging from low to high. Postpartum women showed lower self-acceptance than pregnant women in the second and third trimesters. Researchers and professionals who work directly in the assistance and care of these populations can make use of the results of this study to propose preventive and therapeutic measures focused on the development of self-acceptance during pregnancy and postpartum periods.

Key words: Body image, pregnancy, postpartum, mental health.

Introduction

Pregnancy is a period in which women undergo physiological and psychological changes in a relatively short time (Cash & Smolak, 2011; Gangakhedkar & Kulkarni, 2021; Meireles, Neves, Carvalho & Ferreira, 2015a; Mughal, Azhar & Siddiqui, 2022). In the first trimester (from 0 to 13 weeks), women experience different body adaptations and its affective and sentimental aspects. The second trimester (from 14 to 26 weeks) is marked by rapid body structural changes and the beginning of fetal movements, and the mother's feelings of personification of the fetus are more decisively developed. With the approach of childbirth in the third trimester (from 27 to 40/41 weeks), there is an intensification of anxiety and other affections related to the expectation of the baby's arrival (Brasil, 2018). After the child's birth, during the postpartum period, other significant body changes are related to the return of the body to the nonpregnant state (Brasil, 2018)

These changes can have a significant impact on the unique bodily experiences of women throughout pregnancy and postpartum and, consequently, on the female body image (Hodgkinson, Smith & Wittkowski, 2014; Przybyła-Basista, Kwiecińska & Iłska, 2020). Body image can be understood as the mental representation that an individual has of his/her body and the parts that constitute it as well as the feelings concerning it (Schilder, 1999). Body image is developed in parallel to the construction of the individual's identity and is influenced by physiological, affective, and social aspects (Cash & Smolak, 2011)

Regardless of not being completely satisfied with all aspects of it, unconditional acceptance of one's own body is one of the facets of positive body image (Carrard, Della Torre & Levine, 2019; Zeigler-Hill & Shackelford, 2020). Positive body image is a multifaceted construct that includes several aspects, such as body appreciation, acceptance, and love of the body; inner positivity; and media understanding (Tylka & Wood-Barcalow, 2015). A person's acceptance of their own psychological and physical attributes, valuing aspects considered positive over possible limitations and/or aspects considered negative, is an important means of protecting physical health and psychological well-being (Meireles, Neves, Morgado, et al., 2021; Tylka & Wood-Barcalow, 2015).

Studies on self-acceptance in different populations have been found in recent literature (Morgado, Campana & Tavares, 2014; Plexico, Erath, Shores & Burrus 2019). However, few studies have been performed with pregnant and postpartum women. Meireles et al. (2021) emphasize that these populations have singularities that differentiate them from other populations. Self-acceptance during pregnancy involves two dimensions, namely, body acceptance and acceptance of pregnancy. Self-acceptance in the postpartum period involves three dimensions: body acceptance, body avoidance, and concerns about appearance (Meireles et al., 2021).

In this context, self-acceptance can be particularly sensitive to changes during pregnancy and postpartum, especially due to rapid changes in the body and in body appearance. The desire of prepregnancy appearance standards and the concern to meet them soon after the baby is born can lead to the development of a condition of nonacceptance of pregnancy and/or postpartum in the pregnant woman (Silveira, Ertel, Dole & Chasan-Taber, 2015). On the other hand, a panorama of acceptance of pregnancy and motherhood reflects the acceptance of their new roles and positive attitudes toward their current condition, contributing to the broad development of self-acceptance (Meireles et al., 2021).

Self-acceptance is a prerequisite for mental health, and a negative evaluation can contribute to the development and maintenance of psychopathologies (Meireles et al., 2021). Given the rapid and considerable biopsychosocial change during pregnancy and postpartum, self-acceptance is particularly challenging and important at this point in a woman's life (Meireles et al., 2021). The objective of this study was to evaluate the self-acceptance of pregnant and postpartum women and to compare self-acceptance between the three gestational periods and the postpartum period.

Material & methods

Participants and Procedures

This cross-sectional, quantitative study is part of the umbrella project entitled “Development and Psychometric Assessment of an Assessment Instrument of the Attitudinal Component of Body Image for Pregnant Women” conducted from October 2016 to March 2017. This research was approved by the Ethics Committee and Research in Human Beings at the Federal University of Juiz de Fora (1,376,707). All participants were informed about the research objectives and agreed to participate by signing the consent form.

A convenience sample of pregnant and postpartum women in the state of Minas Gerais, Brazil, was invited to participate in the study. The researchers contacted obstetricians and pediatricians, organizers of courses for pregnant women, and workers at vaccination clinics to collaborate in participant recruitment. Participants had to be over 18 years old, pregnant in any of the three gestational periods or within 6 months postpartum, able to read and write, and voluntarily agree to participate. Those with incomplete data were excluded from the study.

Sociodemographic and clinical characteristics

The volunteers answered a sociodemographic questionnaire with direct and objective questions on various topics, such as age, place of birth, education, marital status, number of children born, relationship with the baby's father, family support, pregnancy planning, and initial desire to have an abortion. Obstetric data, such as gestational age and presence or absence of a condition of gestational risk, were also collected.

The socioeconomic status of pregnant women was evaluated by the Brazilian Economic Classification Criteria (Critério de Classificação Econômica Brasil [CCEB]) developed by the Brazilian Association of Market Research Companies (Associação Brasileira de Empresas de Pesquisa [ABEP], 2016). This instrument differentiates the population by collecting household information, such as possession and quantity of home comfort products and level of schooling of the householder. Scores are distributed according to each attribute, and total scores range from 0 to 100. The final scores are organized into the following levels: A (high class) - 100 to 45 points; B1 (middle class) - 44 to 38; B2 (middle class) - 37 to 29; C1 (low class) - 28 to 23; C2 (low class) - 22 to 17; D and E (classes with lower purchasing power) - 16 to 0.

Self-acceptance Scale for Pregnant Women (SAS-PW)

The SAS-PW was developed and validated for Brazilian pregnant women by Meireles et al. (2021). The scale consists of 10 items divided into two subscales: “Body acceptance” (seven items) and “Pregnancy acceptance” (three items). This tool is scored on a Likert-type scale with five response options, ranging from 1 (never) to 5 (always). The total score is based on the sum of the participants' answers, ranging from 10 to 50 points. The higher the score, the greater their self-acceptance. Pregnant women are classified as having low (10-34 points), moderate (35-45 points) and high (46-50 points) self-acceptance. Analysis of the internal consistency of the instrument for the study sample yielded an adequate Cronbach's alpha of 0.898 (Hair, Black, Babin, Anderson & Tatham, 2009).

Self-acceptance Scale for Postpartum Women (SAS-PPW)

SAS-PPW was answered by participants who had had their babies in the last six months. This instrument was developed by and its psychometric qualities were tested by Meireles et al. (2021). The scale consists of 14 items that range from (1) Never; (2) Few times; (3) Sometimes; (4) Often; a (5) Always. The questions reflect the three subscales: “Body acceptance” (eight items), “Body Avoidance” (three items), and

“Concerns with Appearance” (three items). Of note, the last two subscales have an inverted score. The final score should be based on the sum of the responses to the items, ranging from 14 to 70. The higher the total score, the greater the participant's self-acceptance. Postpartum women are classified as having low (14-41 points), moderate (42-57 points) and high (58-70 points) self-acceptance. For this sample, the instrument presented good internal consistency ($\alpha=0.875$) (Hair et al., 2009).

Statistical analysis

Data were analyzed using SPSS version 19.0. Categorical variables were described in absolute and relative frequencies. Numerical variables are described as the means and standard deviations. For the comparison between the three gestational periods and the postpartum period, the SAS-PW and SAS-PPW scores were standardized to maintain the equivalence of values and then transformed into a Z score. As the Z score values are distributed in a normal-standard curve (Hair et al., 2009), the parametric one-way ANOVA test was used to compare the groups (first, second, third trimester and postpartum). Bonferroni's post-hoc test was used to identify differences. For all cases, the significance level adopted was $p<0.05$.

Results

This study included 446 pregnant women with a mean age of 28.93 years old ($SD=5.93$) and 236 postpartum women with a mean age of 28.19 years old ($SD=6.38$) from 54 cities of Minas Gerais, Brazil. The gestational age of the participants ranged from three to 42 weeks (24.80 ± 8.78 weeks) with 47 (10.5%), 180 (40.4%) and 219 (49.1%) participants being in the first, second and third trimesters, respectively. The pregnancy presented some risk conditions (gestational diabetes, hypertension, thrombophilia, twins and advanced age) in 98 participants (22.0%). In the postpartum group, the time between the date of delivery and data collection ranged from four to 194 days with an average of 53 days ($SD=56.12$).

Table 1 shows the absolute and relative values of sociodemographic and economic variables of pregnant and postpartum women. The majority of the sample had attended high school, were married, were in their first pregnancy or postpartum, had a good relationship with the baby's father, had family support, had planned the pregnancy, did not consider an abortion, and belonged to the middle economic class.

Table 1: Absolute and relative frequencies of sociodemographic and economic variables in participants.

| Variable | Pregnant Women | | Postpartum Women | |
|--|----------------|------|------------------|------|
| | n | (%) | N | (%) |
| Schooling | | | | |
| Elementary School | 48 | 10.8 | 29 | 12.3 |
| High School | 216 | 48.4 | 115 | 48.7 |
| Higher Education | 84 | 18.8 | 50 | 21.2 |
| Post Graduate | 98 | 22.0 | 42 | 17.8 |
| Marital status | | | | |
| Single | 70 | 15.7 | 67 | 28.4 |
| Married | 369 | 82.7 | 167 | 70.8 |
| Divorced/Widowed | 7 | 1.6 | 2 | 0.8 |
| First pregnancy or first postpartum | | | | |
| Yes | 270 | 60.5 | 150 | 63.5 |
| No | 176 | 39.5 | 86 | 36.5 |
| Relationship with the baby's father | | | | |
| Bad | 23 | 5.2 | 8 | 3.4 |
| Good | 443 | 94.8 | 228 | 96.6 |
| Family support | | | | |
| No | 14 | 3.1 | 8 | 3.4 |
| Yes | 432 | 96.9 | 228 | 96.6 |
| Gestation planning | | | | |
| No | 189 | 42.4 | 109 | 46.2 |
| Yes | 257 | 57.6 | 127 | 53.8 |
| Initial desire to have an abortion | | | | |
| No | 420 | 94.2 | 227 | 96.2 |
| Yes | 26 | 5.8 | 9 | 3.8 |
| Socioeconomic level | | | | |
| A | 40 | 9.0 | 16 | 6.8 |
| B1 | 61 | 13.7 | 22 | 9.3 |
| B2 | 129 | 28.9 | 60 | 25.4 |
| C1 | 99 | 22.1 | 53 | 22.5 |
| C2 | 77 | 17.3 | 42 | 17.8 |
| D/E | 40 | 9.0 | 43 | 18.2 |

Regarding self-acceptance among pregnant women, 111 (24.9%), 194 (43.5%) and 141 (31.6%) presented low, moderate, and high self-acceptance, respectively. Among postpartum women, 54 (22.9%), 103 (43.6%) and 79 (33.5%) had low, moderate, and high self-acceptance, respectively. Table 2 presents the means, standard deviation, median, minimum and maximum values of the total SAS-PW and total SAS-PPW scales and their subscales.

Table 2: Descriptive data of SAS-PW and SAS-PPW.

| Variable | Mean (SD) | Median | Minimum | Maximum |
|-------------------------|---------------|--------|---------|---------|
| Pregnant Women | | | | |
| SAS-PW total | 39.60 (8.09) | 41 | 10 | 50 |
| SAS-PW-BAc | 26.27 (6.57) | 28 | 7 | 35 |
| SAS-PW-PA | 13.33 (2.38) | 14 | 3 | 15 |
| Postpartum Women | | | | |
| SAS-PPW total | 48.86 (11.55) | 49 | 16 | 70 |
| SAS-PPW-BAc | 28.03 (7.90) | 29 | 8 | 40 |
| SAS-PPW-BAv | 10.85 (3.36) | 11 | 3 | 15 |
| SAS-PPW-CA | 9.97 (3.25) | 10 | 3 | 15 |

Note: SAS-PW = Self-acceptance Scale for Pregnant Women; BAc = Body Acceptance; PA = Pregnancy Acceptance; SAS-PPW = Self-acceptance Scale for Postpartum Women; BA_v = Body Avoidance; CA = Concerns with Appearance.

Table 3 presents the comparison of the means of the Z scores of the self-acceptance questionnaires (SAS-PW and SAS-PPW). Significant differences were identified between the groups ($F=18.22$; $p=0.0001$). Based on the Bonferroni post hoc test, postpartum women showed lower self-acceptance than pregnant women in their second ($p=0.0001$) and third trimesters ($p=0.0001$). The comparison of the questionnaires' subscales was not performed because they are composed of different dimensions.

Table 3: Comparison of self-acceptance between pregnant and postpartum women.

| Variables | 1 st trimester | 2 nd trimester | 3 rd trimester | Postpartum |
|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|
| | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) |
| Self-acceptance (Z score) | 0.02 (1.06) | 0.28 (0.86) ^a | 0.16 (1.00) ^b | -0.36 (0.98) ^{ab} |

Note: SD = standard deviation; ^a = significant value for comparison between second trimester and postpartum ($p<0.0001$); ^b = significant value for comparison between third trimester and postpartum ($p<0.0001$).

Discussion

This is the first Brazilian study that evaluated self-acceptance in the gestational and postpartum period with a scale built and validated specifically for this public (Meireles et al., 2021). Previous investigations in different populations have already verified that high levels of self-acceptance are related to positive body image and high self-esteem, whereas low levels of self-acceptance are associated with depression and anxiety (Morgado et al., 2014; Potocka, Turczyn-Jabłońska & Kieć-Swierczyńska, 2008). Pregnant and postpartum women can experience physical and psychological disorders, and positive body image represents an important protective factor (Kazmierczak & Goodwin, 2011) with self-acceptance being an important sign of mental health (Li et al., 2021).

The main characteristics analyzed in these investigations were as follows: women who were married, in their first pregnancy or postpartum, with a good relationship with the baby's father and family support, had planned the pregnancy without the possibility of abortion, had higher education and belonged to the middle economic class (Meireles, Neves, Carvalho & Ferreira., 2015b; Meireles et al., 2021). Previous studies have shown that pregnant women with favorable social structures were associated with low-risk pregnancies (Meireles et al., 2015b; Meireles et al., 2021). Sociodemographic variables must be taken into account as they may be related to the condition of gestational risk, which may affect the health of both the mother and the baby, reinforcing the importance of comprehensive health care (Meireles et al., 2015b; Meireles et al., 2021).

Based on the findings, 24.9% and 22.9% of pregnant and postpartum women, respectively, showed low self-acceptance. In the scale validation, Meireles et al. (2021) noted 25% low self-acceptance in both audiences. Thus, the number of postpartum women in this condition was subtly lower than that of Meireles et al. (2021). It should be noted that the author evaluated women from different Brazilian regions, whereas the present study considered only women from Minas Gerais. It is possible that cultural differences contributed to this small disparity.

Low self-acceptance during these periods in a woman's life can have negative consequences, such as a high degree of adaptive difficulty in the postpartum period and a lower ability to act and think independently (Bailey & Hailey, 1987; Student, 1977) in addition to harmful consequences for the psychological aspect of women in the perinatal period. Another effect of low levels of self-acceptance is the negative impact on body

image (Morgado et al., 2014; Potocka et al., 2008). Previous studies noted the relationship between an affected body image and deleterious psychological aspects, such as depressive symptoms and low self-esteem (Downs, DiNallo & Kirner, 2008; Meireles et al., 2015a; Sweeney & Fingerhut, 2013; Walker, Gao & Xie, 2015). The possible relationships between self-acceptance and other psychological factors should be verified in future studies, considering the global psychological health of pregnant and postpartum women.

The study results also revealed that 31.6% of pregnant women and 33.5% of postpartum women exhibited high levels of self-acceptance. Considering this a mental health criterion, the woman's acceptance of the changes that this period brings and her new condition is of extreme importance (Meireles, Neves, Morgado, et al., 2021; Morgado et al., 2014; Potocka et al., 2008), as this can provide solid emotional and behavioral health. High levels of self-acceptance of teenage mothers in qualitative research reported by Solivan, Wallace, Kaplan and Harville (2015) were related to family and partner support. In addition, self-acceptance was associated with healthy experiences during pregnancy and after the baby's birth. In addition, self-acceptance at this stage is directly associated with a positive body image, high self-esteem and low depressive symptoms (Meireles, Neves, Amaral, Morgado & Ferreira, 2022).

Comparing the levels of self-acceptance between the three gestational periods and the postpartum period, postpartum women showed lower self-acceptance than pregnant women in the second and third trimesters. It seems that the postpartum women included in this study were in a more delicate situation regarding self-acceptance, reflecting a greater difficulty with regard to biopsychosocial well-being compared to pregnant women in the middle to the end of pregnancy. A quantitative, longitudinal study developed by Rallis, Skouteris, Wertheim and Paxton (2007) investigated body image in women in the middle (16-23 weeks) and late (32-39 weeks) gestational periods and postpartum at time 1 (6 weeks later), time 2 (six months later) and time 3 (one year later). The findings showed that in the first year after delivery, women felt overweight and less fit with decreased strength and reported a large discrepancy between their ideal size and the size reported prior to pregnancy.

The authors suggested that late pregnancy may provide a temporary decrease in habitual body concerns and a restricted pattern of the normally idealized figure; however, these concerns about feeling overweight reappear in the postpartum period and were reported to be greater than those previously noted in pregnancy (Rallis et al., 2007). It is necessary for public health policies to support women in this period, preserving their mental health and making postpartum experience more positive.

Despite the study contributions, some limitations should be noted. First, given its cross-sectional characteristics, it is not possible to assess the changes experienced by women throughout the gestational or postpartum period. This limitation was also noted in another study with the same population (Meireles et al., 2022). However, this methodology has been widely used in the assessment of the body image of pregnant women and women in the postpartum period (Meireles et al., 2015b; Przybyła-Basista et al., 2020). Furthermore, the present study used one questionnaire to evaluate self-acceptance. However, SAS-PW and SAS-PPW are the only scales available that were developed and validated for this population. In addition, the internal consistency showed adequate values. Finally, the findings cannot be generalized given that this study assessed a convenience sample from a specific region. Thus, it is suggested that future studies should be developed to evaluate pregnant and postpartum women longitudinally using different measurement instruments and exploring other regions.

Conclusions

The study investigated the levels of self-acceptance in pregnant and postpartum women and found that the participants showed a range of self-acceptance levels, with postpartum women having lower self-acceptance levels than pregnant women in their second and third trimesters. The results are significant as low self-acceptance has been linked to the development and maintenance of psychopathologies, highlighting the importance of considering this issue during pregnancy and the postpartum period.

These findings provide valuable insights for researchers, scholars, and professionals working directly with pregnant and postpartum women to develop preventive and therapeutic measures focused on enhancing self-acceptance. The theoretical contribution of the study lies in providing empirical evidence to support the importance of self-acceptance in maternal mental health and highlighting the need to address this issue in interventions and care plans for pregnant and postpartum women.

Practically, the results can be used to inform the development of targeted interventions aimed at improving self-acceptance in pregnant and postpartum women. The findings may also be useful for healthcare professionals in identifying women who may be at risk of low self-acceptance and developing appropriate care plans. Finally, the study highlights the importance of addressing self-acceptance in pregnant and postpartum women to promote maternal mental health and wellbeing.

Conflicts of interest

The authors confirm that they have no conflicts of interest related to the article content.

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