Revista Portuguesa de Investigação Comportamental e Social · 2026 · Vol. 12(2): 1–13
Portuguese Journal of Behavioral and Social Research · e-ISSN 2183-4938
Departamento de Investigação & Desenvolvimento · Instituto Superior Miguel Torga

ORIGINAL ARTICLE

Body image and breastfeeding motivation in Portuguese pregnant women: An exploratory study

Imagem corporal e motivação para amamentar em grávidas portuguesas: Estudo exploratório

José Mendes[1,2] · **Pedro Alexandre-Sousa**[1] · **Fábio Coelho**[3] · **Márcio Tavares**[2]

[1] *Center for Innovative Care and Health Technology (ciTechCare), Leiria, Portugal*
[2] *Universidade dos Açores, Escola Superior de Saúde, Ponta Delgada, Portugal*
[3] *Hospital de Santo Espírito da Ilha Terceira, Angra do Heroísmo, Portugal*

https://doi.org/10.31211/rpics.2026.12.2.407

Abstract

Objective: Body image may influence breastfeeding motivation and women's decisions about physical appearance and bodily changes, making it a crucial factor to consider. This study examined associations between sociodemographic variables, body image (body appreciation and body image concerns), and breastfeeding motivation among pregnant women in Portugal. **Methods:** A quantitative, descriptive, and correlational cross-sectional study was conducted with 231 pregnant women who completed a sociodemographic questionnaire, the Body Appreciation Scale-2 (BAS-2), the Body Image Concerns during Pregnancy Scale (BICdPS), and the Breastfeeding Motivation Scale (BMS). Spearman correlations and the Mann–Whitney and Kruskal–Wallis tests were used. **Results:** Participants showed positive body image, reduced body image concerns, and high breastfeeding motivation. Breastfeeding motivation was weakly correlated with body appreciation (r_s = .16) and with body image concerns (r_s = −.13); the psychosocial dimension of the BMS showed the strongest correlations (r_s = .27 and −.25, respectively). No differences in body image were found between women with lower and higher motivation. Breastfeeding motivation differed significantly according to educational level and pregnancy trimester. **Conclusions:** A positive body image and reduced concern about appearance during pregnancy were weakly but significantly associated with breastfeeding motivation. Furthermore, higher education and a more advanced pregnancy trimester were associated with higher breastfeeding motivation; the cross-sectional design precludes causal inferences.

Keywords: Body Image; Breastfeeding; Motivation; Pregnant Women; Cross-Sectional Study.

DATAS EDITORIAIS

Recebido	12/05/2025
Revisto	15/04/2026
Aceite	12/11/2026
Publicado	18/11/2026

COMO CITAR

Mendes, J., Alexandre-Sousa, P., Coelho, F., & Tavares, M. (2026). Body image and breastfeeding motivation in Portuguese pregnant women: An exploratory study. *Revista Portuguesa de Investigação Comportamental e Social*, *12*(2), 1–13. https://doi.org/10.31211/rpics.2026.12.2.407

AUTOR CORRESPONDENTE

José Mendes
Universidade dos Açores, Escola Superior de Saúde, Rua Mãe de Deus, 9500-321, Ponta Delgada, Portugal
E-mail: jose.cs.mendes@uac.pt

PUBLICAÇÃO EM ACESSO ABERTO

©2026. O(s) Autor(es). Este é um artigo de acesso aberto distribuído sob a Licença Creative Commons Attribution 4.0 International (CC BY 4.0), que permite o uso, a distribuição e a reprodução sem restrições em qualquer meio, desde que o trabalho original seja devidamente citado.

DI&D | ISMT
rpics@ismt.pt
https://rpics.ismt.pt

Resumo

Objetivo: A imagem corporal pode influenciar a motivação para amamentar, afetando as decisões das mulheres relativamente à aparência física e às mudanças corporais. Este estudo teve como objetivo explorar as associações entre as variáveis sociodemográficas e a imagem corporal (apreciação corporal e preocupações com a imagem corporal) e a motivação para a amamentação em grávidas portuguesas. **Métodos:** Estudo transversal quantitativo, descritivo e correlacional, com aplicação de um protocolo de instrumentos (Questionário Sociodemográfico, Escala de Apreciação Corporal-2, Escala de Preocupação com a Imagem Corporal Durante a Gravidez e Escala de Motivação para a Amamentação) a 231 grávidas. Utilizaram-se correlações de Spearman e os testes de Mann–Whitney e de Kruskal–Wallis. **Resultados:** As participantes revelaram uma imagem corporal positiva, uma preocupação reduzida com a imagem corporal e uma elevada motivação para a amamentação. A motivação para a amamentação correlacionou-se fracamente com a apreciação corporal (r_s = 0,16) e com as preocupações com a imagem corporal (r_s = −0,13), sendo a dimensão psicossocial a que apresentou correlações mais fortes (r_s = 0,27 e −0,25, respetivamente). Não se verificaram diferenças na imagem corporal entre grávidas com menor e maior motivação. Verificaram-se diferenças estatisticamente significativas na motivação para a amamentação em função das qualificações académicas e do trimestre de gravidez. **Conclusões:** Uma imagem corporal positiva e uma menor preocupação com a aparência durante a gravidez estão fraca, mas significativamente, relacionadas com a motivação para amamentar, que também se associa a fatores sociodemográficos, como a escolaridade e o trimestre da gravidez; o desenho transversal não permite inferências causais.

Palavras-chave: Amamentação; Grávidas; Imagem Corporal; Motivação; Estudo Transversal.

Introduction

Breastfeeding is widely acknowledged as the best way to feed an infant, offering significant nutritional, immunological, and emotional benefits for both the mother and the baby (Modak et al., 2023; Rivi et al., 2020). The decision of whether to breastfeed is multifaceted and can be influenced by various factors, including cultural beliefs, social support, available information, and personal experiences (Chakona, 2020; Sosseh et al., 2023). Studies indicate that a mother's self-image is a significant factor that may influence both the intention and practice of breastfeeding (Arnedillo-Sánchez et al., 2024; Owen et al., 2024; Tavares et al., 2023).

Body image refers to an individual's perception of their own body, including the emotions and attitudes associated with that perception (Cash & Smolak, 2012; Mendes et al., 2019). Pregnancy and the puerperium period entail substantial physical changes for many women, which may influence their body satisfaction and self-confidence (Noroozi Dashtaki et al., 2024). In certain societies, there is significant societal pressure for women to promptly restore their pre-pregnancy physical shape, a situation that can adversely influence their decision regarding breastfeeding (Owen et al., 2024; Rodgers et al., 2024).

In this study, we aimed to analyze associations between body image (positive body image and body image concerns during pregnancy) and breastfeeding motivation in pregnant women, and to examine whether sociodemographic and anthropometric variables (educational level, pregnancy trimester, and body mass index) are related to breastfeeding motivation.

Theoretical Framework

The decision to breastfeed is intricate and can be influenced by a range of factors, with body image playing a significant role (Alleva & Tylka, 2021; Kochan & Kabukcuoglu, 2022). Throughout pregnancy, a woman's body experiences notable changes that may influence her body image perception (Hartley et al.,

2021; Linde et al., 2022). Research shows that weight gain and physiological changes frequently result in heightened body dissatisfaction (Crossland et al., 2023; Dryer et al., 2020). The postpartum period is a critical time for breastfeeding decisions, and it is important to recognize that increased dissatisfaction during this period may impact breastfeeding-related decisions.

Body image is a significant factor in shaping these decisions (Crossland et al., 2023). Research demonstrates that women who experience dissatisfaction with their postpartum bodies are more inclined to discontinue breastfeeding prematurely or choose not to initiate breastfeeding at all (Sommerfeldt et al., 2024). Given the multidimensional nature of body image, a more fine-grained conceptual differentiation of its underlying constructs is warranted.

Although often used interchangeably, body appreciation, body concern, and body dissatisfaction represent distinct constructs within the body image domain. Body appreciation reflects a positive, accepting orientation toward the body, encompassing respect for its characteristics, valuation of its functionality, and resistance to internalizing unrealistic sociocultural appearance ideals (Avalos et al., 2005; Tylka & Wood-Barcalow, 2015b).

By contrast, body concern reflects a maladaptive cognitive-behavioral pattern characterized by heightened preoccupation with body-related attributes (e.g., weight, shape, appearance), including intrusive thoughts, body surveillance, and checking behaviors. This construct is primarily attentional and may contribute to persistent body image disturbances. Body dissatisfaction, in turn, denotes a negative evaluative component of body image, arising from a perceived discrepancy between the actual body and internalized ideals. It is typically associated with negative affect (e.g., distress, dissatisfaction) and a desire to modify one's body or specific body parts (More et al., 2024). These constructs play distinct roles in the etiology and maintenance of body image disturbances. Body appreciation has been consistently identified as a protective factor, whereas body dissatisfaction is a strong risk factor for eating pathology and related outcomes. Body concern may function as a cognitive-attentional mechanism that amplifies and maintains dissatisfaction, even in the absence of objective changes in physical appearance. A clear conceptual distinction among these constructs is therefore essential to enhance theoretical precision and support the development of more targeted empirical investigations.

In the postpartum context, these body image dimensions may be particularly salient in shaping women's health-related decisions, including breastfeeding practices. Factors such as concerns about the appearance of the breasts, apprehension regarding the potential impact of breastfeeding on breast sagging or other physical changes, and the societal pressure to swiftly regain pre-pregnancy physical shape can all play a significant role in influencing this decision (Acheampong & Abukari, 2021; Musaei, 2023; Sohrabi et al., 2023; Uçar et al., 2018). However, there is also an idealization of the female body, which can be intensified by media portrayals of celebrities quickly regaining their pre-pregnancy figure after giving birth (Pan & Mou, 2024; Rodgers et al., 2024). These unrealistic standards may increase the pressure on women to avoid breastfeeding in the belief that they will return to their pre-pregnancy appearance more quickly.

The different changes that occur in a woman's body during pregnancy and the postpartum period can significantly impact her idealized body image (Tavares et al., 2023). Research indicates that excessive preoccupation with body image during pregnancy can lead to mental health issues, including anxiety, depression, low self-esteem, lack of confidence, and eating disorders (Brunton et al., 2020; Simbar et al., 2020; Ünsal Çimen et al., 2024).

Tavares et al. (2023) note that a woman's perception of and satisfaction with her body during pregnancy and the postpartum period can influence her decision to breastfeed. The authors found that women with a more positive body image are more likely to intend to breastfeed during pregnancy.

Based on the literature reviewed, the following hypotheses were formulated:

H1: Breastfeeding motivation (BMS) is expected to be positively associated with body appreciation (BAS-2) and negatively associated with body image concerns during pregnancy (BICdPS).

H2: Breastfeeding motivation (BMS) is expected to show weak-to-moderate associations with body image variables (BAS-2 and BICdPS).

H3: Breastfeeding motivation differs significantly across pregnancy trimesters.

H4: Breastfeeding motivation differs significantly across educational levels.

Method

Participants

The sample consisted of 231 Portuguese pregnant women (participation rate 83.1% of the 278 invited), predominantly in stable relationships, with a higher proportion married (52.4%) and in cohabitation (28.1%), while single (16.5%) and divorced (1.7%) participants were less represented. Participants had a mean age of 30.48 years (*SD* = 5.58; age range: 18–47), and 18 (7.8%) were in the first trimester of pregnancy, 94 (40.7%) in the second, and 119 (51.5%) in the third.

Education levels were diverse, with greater representation in secondary education (37.2%) and higher education (34.6%), reflecting an overall medium-to-high educational level. Most participants resided in the Autonomous Region of the Azores (74.9%), followed by mainland Portugal (20.3%) and, to a lesser extent, the Autonomous Region of Madeira (4.8%). Regarding body mass index (BMI), normal weight predominated before pregnancy (48.5%), although a substantial proportion of participants were overweight (28.6%) or obese (18.6%). During pregnancy, there was an increase in overweight (39.4%) and obesity (32.9%), along with a decrease in the proportion of women with normal weight (26.0%). Finally, most participants had no children (56.7%) (Table 1). No formal a priori sample size calculation was performed; the sample size was determined by practical constraints, namely the data collection period and the availability of participants in the target population during recruitment.

Procedures

The research protocol was made available in two formats: online and printed. In the online format, the study was disseminated through the social network Facebook, where potential participants could access the electronic form. In the printed format, the data collection instruments were provided on paper by nurses at various healthcare units on the island of São Miguel, Autonomous Region of the Azores. Data were collected between November 2022 and June 2023.

The following inclusion criteria were established: (a) being a pregnant woman, (b) being at least 18 years of age, and (c) being able to read the informed consent form. This form ensured each participant had full freedom to decide whether to take part in the study and to withdraw at any time without penalty or detriment to the healthcare received.

The study was approved by the Ethics Committee of the University of the Azores (Opinion 3/2022). All participants who agreed to take part in the study signed the informed consent form, ensuring the anonymity and confidentiality of the collected data.

Table 1

Sample Characterization (N = 231)

Characteristic	*n*	%	Characteristic	*n*	%
Marital status			*Body mass index prior to pregnancy*		
Single	38	16.5	Underweight	9	3.9
Married	121	52.4	Normal weight	112	48.5
Divorced	4	1.7	Overweight	66	28.6
Cohabiting (de facto union)	65	28.1	Obesity class I	27	11.7
No response	3	1.3	Obesity class II	10	4.3
			Obesity class III	6	2.6
Education			*Body mass index in pregnancy*		
1st cycle (4 years of schooling)	7	3.0	Underweight	3	1.3
2nd cycle (6 years)	29	12.6	Normal weight	60	26.0
3rd cycle (9 years)	28	12.1	Overweight	91	39.4
Secondary education	86	37.2	Obesity class I	49	21.2
Higher education	80	34.6	Obesity class II	18	7.8
No response	1	0.4	Obesity class III	9	3.9
Place of residence			*Children*		
Mainland Portugal	47	20.3	Yes	100	43.3
Autonomous Region of the Azores	173	74.9	No	131	56.7
Autonomous Region of Madeira	11	4.8			

Note. Percentages of the total sample; "No response" indicates missing data; body mass index was missing for one participant (0.4%).

Instruments

Sociodemographic Questionnaire

The questionnaire included questions about participants' personal characteristics, including age, height, current and pre-pregnancy weight, marital status, educational level, number of children, place of residence, and trimester of pregnancy.

Body Image Concerns during Pregnancy Scale (BICdPS)

The BICdPS (Uçar et al., 2018; Portuguese version by Mendes et al., 2024) comprises 21 items in four dimensions: Avoidance and Social Concerns (10 items), Concern about Weight Gain (3 items), Concern about the Future (4 items), and Concern about Physical Appearance (4 items). Responses are recorded on a 5-point Likert-type scale from *Strongly disagree* (1) to *Strongly agree* (5). The total score ranges from 21 to 105, with higher scores indicating greater body image concerns during pregnancy. Internal consistency in the Portuguese validation study: α = .89. In the present study, the BICdPS showed α = .89 for the total scale, with α = .84 for Avoidance and Social Concerns, .82 for Concern about Weight Gain, .83 for Concern about the Future, and .86 for Concern about Physical Appearance.

Breastfeeding Motivation Scale (BMS)

The BMS (Nelas et al., 2008) assesses pregnant women's motivation to breastfeed. It comprises 22 items organized into three dimensions (cognitive, physiological, and psychosocial), rated on a 5-point Likert-type scale from *Strongly disagree* (1) to *Strongly agree* (5), with higher scores indicating greater breastfeeding motivation. The total score can vary from a minimum of 22 to a maximum of 110. Internal consistency in the original study: α = .95. In the present study, α = .94.

Body Appreciation Scale-2 (BAS-2)

The BAS-2 (Tylka & Wood-Barcalow, 2015a; Portuguese version by Marta-Simões et al., 2016) consists of 10 items measured using a five-point Likert-type scale from *Never* (1) to *Always* (5) and assesses individuals' acceptance, positive opinions, and respect for their bodies. The total score can range from 10

to 50, with higher scores indicating a greater level of body appreciation. Internal consistency in the Portuguese validation study: α = .95. In the present study, α = .96.

Data Analysis

Data were analyzed with IBM SPSS Statistics, version 28 for macOS (IBM Corp., 2021). Descriptive statistics and Cronbach's alpha were calculated. Because the variables did not meet the assumption of normality, we used Spearman's correlation coefficient (r_s) and the Kruskal–Wallis and Mann–Whitney tests to assess group differences, followed by pairwise comparisons using Dunn's test with Bonferroni adjustment for multiple comparisons. Effect sizes were reported alongside *p*-values: the rank-biserial correlation (r_{rb}) for the Mann–Whitney tests and eta squared (η^2) for the Kruskal–Wallis tests. Because scales lack predefined cut-off points for clinical interpretation and the data were not normally distributed, we calculated each scale's theoretical midpoint as the mean of the minimum and maximum possible scores (Rodrigues et al., 2017). This approach categorized participants' scores as below, at, or above the midpoint, enabling a meaningful descriptive interpretation of body image concerns, body appreciation, and breastfeeding motivation. The BMS midpoint was also used to compare body appreciation and body image concerns between women with lower (≤ 66) and higher (> 66) breastfeeding motivation.

Results

Following the evaluation of the midpoints (Table 2), it was determined that the research participants displayed reduced concern about body image during pregnancy (M = 49.18, SD = 13.45), had a positive body image (M = 41.73, SD = 7.38), and exhibited a high motivation to breastfeed (M = 90.85, SD = 15.27).

Table 2

Theoretical Midpoints, Percentages of Scores Below and Above the Midpoint, and Descriptive Statistics of the BICdPS, BAS-2, and BMS (N = 231)

Scale	Theoretical midpoint	≤ midpoint (%)	> midpoint (%)	*M*	*SD*
BICdPS	63	83.1	16.9	49.18	13.45
BAS-2	30	9.1	90.9	41.73	7.38
BMS	66	6.9	93.1	90.85	15.27

Note. Theoretical midpoint = (minimum + maximum possible score)/2. BICdPS = Body Image Concerns during Pregnancy Scale; BAS-2 = Body Appreciation Scale-2; BMS = Breastfeeding Motivation Scale.

Table 3 presents correlations between sociodemographic variables, body image assessment scales (BAS-2 and BICdPS), and breastfeeding motivation (BMS). Breastfeeding motivation (BMS) showed weak correlations with positive body image (r_s = .16, p = .014) and body image concerns during pregnancy (r_s = −.13, p = .046). When evaluating BMS dimensions, the psychosocial dimension was weakly to moderately correlated with positive body image (r_s = .27, p < .001) and body image concerns during pregnancy (r_s = −.25, p < .001). Upon analyzing the dimensions of BICdPS, the Avoidance and Social Concerns dimension showed a weak correlation with motivation for breastfeeding (BMS) (r_s = −.22, p < .001), with weak correlations found with the cognitive dimension (r_s = −.17, p = .012) and the physiological dimension (r_s = −.16, p = .014), and a moderate correlation with the psychosocial dimension (r_s = −.32, p < .001). Additionally, motivation to breastfeed was positively associated with educational attainment (r_s = .28, p < .001) and pregnancy trimester (r_s = .17, p = .009). Pre-pregnancy BMI was strongly and positively correlated with BMI during pregnancy (r_s = .78, p < .001).

Table 3

Spearman Correlations between the Body Appreciation Scale-2 (BAS-2), Body Image Concerns during Pregnancy Scale (BICdPS), Breastfeeding Motivation Scale (BMS), and Sociodemographic Variables

Variable	1	2	2.1	2.2	2.3	2.4	3	3.1	3.2	3.3	4	5	6	7
1. BAS-2	—	−.58***	−.52***	−.48***	−.56***	−.12	.16*	.12	.08	.27***	−.11	−.20**	−.22**	−.06
2. BICdPS		—	.80***	.80***	.89***	.42***	−.13*	−.09	−.07	−.25***	−.06	−.16*	.16*	−.01
2.1 Avoidance and Social Concerns			—	.52***	.64***	.07	−.22**	−.17*	−.16*	−.32***	.05	.12	.05	−.04
2.2 Concern about Weight Gain				—	.78***	.15*	.05	.06	.06	−.01	.11	.26***	.28***	.05
2.3 Concern about the Future					—	.24***	−.03	.01	.01	−.15*	.05	.13*	.25***	.01
2.4 Concern about Physical Appearance						—	−.09	−.08	−.01	−.14*	−.09	−.08	−.05	−.01
3. BMS							—	.95***	.88***	.78***	.01	.08	.28***	.17**
3.1 Cognitive dimension								—	.77***	.64***	.02	.09	.23***	.17**
3.2 Physiological dimension									—	.57***	−.10	−.02	.39***	.17**
3.3 Psychosocial dimension										—	.09	.12	.15*	.07
4. BMI prior to pregnancy											—	.78***	−.23***	−.05
5. BMI in pregnancy												—	−.13*	.17**
6. Education													—	.21**
7. Trimester of pregnancy														—

Note. All coefficients are Spearman's r_s (N = 231). BAS-2 = Body Appreciation Scale-2; BICdPS = Body Image Concerns during Pregnancy Scale; BMS = Breastfeeding Motivation Scale; BMI = body mass index.

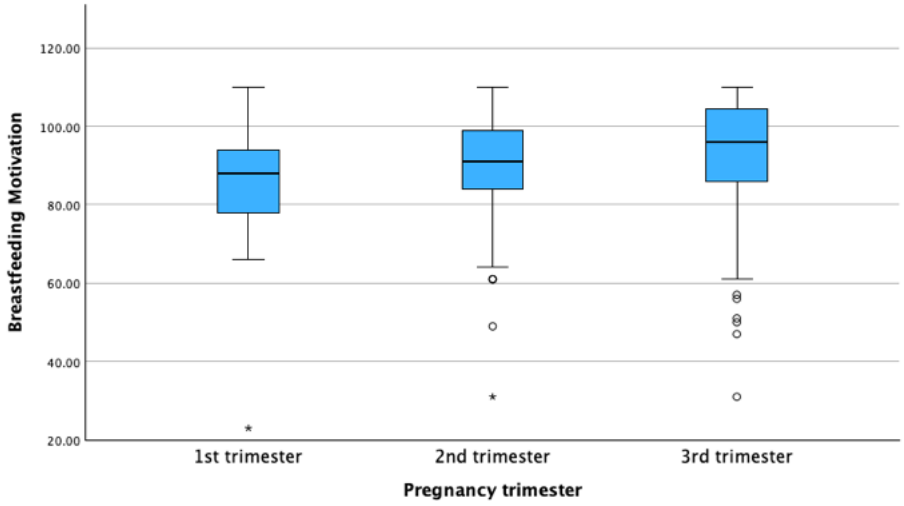
*p < .05. **p < .01. ***p < .001.

The non-parametric Mann–Whitney test was used to evaluate whether body appreciation and body image concerns during pregnancy differed between women with lower (n = 16) and higher (n = 215) motivation to breastfeed. The U test results showed no statistically significant differences in body image concerns during pregnancy (U = 1864.00, p = .576, r_{rb} = −.08) or positive body image (U = 1479.50, p = .330, r_{rb} = .14) between the two groups.

To assess associations between pregnancy trimester, educational attainment, and breastfeeding motivation, we used the non-parametric Kruskal–Wallis test, followed by multiple comparisons of mean ranks. Our analysis showed that breastfeeding motivation differed significantly across pregnancy trimesters (H(2) = 6.99, p = .030, η^2 = .02). Specifically, the first and third trimesters differed significantly (p = .028), as shown in Figure 1.

Figure 1

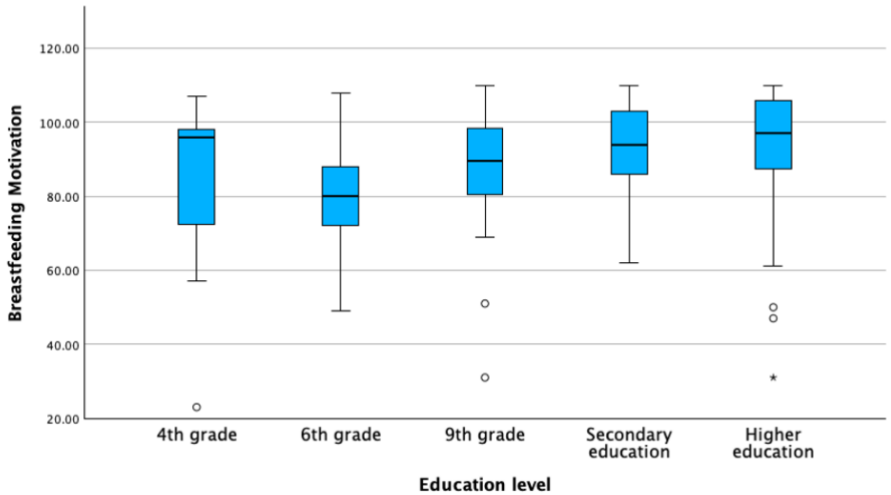
Distribution of Breastfeeding Motivation by Pregnancy Trimester



Furthermore, educational attainment also had a statistically significant effect on breastfeeding motivation (H(4) = 24.51, p < .001, η^2 = .09). Figure 2 shows that the most notable differences occurred between second-cycle and secondary and higher education (p < .001).

Figure 2

Distribution of Breastfeeding Motivation by Education Level



Discussion

The reliability of the measurement scales was assessed using Cronbach's alpha coefficients, indicating good (between .70 and .90) to very good (> .90) levels of internal consistency (Marôco & Garcia-Marques, 2006; Néné & Sequeira, 2022).

The four hypotheses were supported: breastfeeding motivation was positively associated with body appreciation and negatively associated with body image concerns during pregnancy (H1), these associations were weak to moderate (H2), and breastfeeding motivation differed across pregnancy trimesters (H3) and educational levels (H4). The results revealed a correlation between breastfeeding motivation and body image. Specifically, the psychosocial dimension of the BMS showed weak-to-moderate correlations with positive body image (r_s = .27, p < .001) and body image concerns (r_s = −.25, p < .001). This finding aligns with research suggesting that breastfeeding offers a range of physical and psychological benefits (Schalla et al., 2017) and that body image concerns tend to decrease over the course of breastfeeding (Rodgers et al., 2018). Furthermore, positive attitudes toward breastfeeding have been linked to greater appreciation of body functionality and less emphasis on controlling body weight (Gillen et al., 2021). This association may be better understood through the lens of self-determination theory (Deci & Ryan, 2000), as women with a more positive body image may be more intrinsically motivated to engage in health-promoting behaviors and value body functionality over appearance. In contrast to the associations observed with body image variables, the study found no relationship between motivation to breastfeed and BMI. Although women desire a deeper understanding of breastfeeding's effects on their bodies (Uçar et al., 2018), body image did not differ significantly between women with lower and higher breastfeeding motivation, although the correlations were significant. According to Mancini (2017), breastfeeding mothers tend to have a more positive perception of their body image, which aligns with the findings of our study (high positive body image, reduced body image concerns, and high breastfeeding motivation). The lack of association with BMI further reinforces the idea that subjective perceptions, rather than objective indicators, play a more central role in shaping health-related motivation.

A positive correlation was found between motivation to breastfeed and level of education, consistent with previous research, highlighting the influence of educational attainment on breastfeeding motivation (Piro & Ahmed, 2020; Sloan et al., 2006). Additionally, a positive association was observed with the pregnancy trimester, revealing significant differences between the first and third trimesters. Research suggests that women in the third trimester of pregnancy are more ready to breastfeed (Ballesta-Castillejos et al., 2020; Gutierrez-de-Terán-Moreno et al., 2022; Wu et al., 2023). These findings may align with the Health Belief Model (Rosenstock, 1974), as higher educational levels may enhance health literacy and perceived benefits of breastfeeding, while advancing gestational stage may increase perceived readiness and intention to engage in the behavior.

The findings also indicate an increase in the proportion of overweight and obesity during pregnancy, in line with previous research showing that a substantial proportion of pregnant women exceed the recommended gestational weight gain (Aji et al., 2022; Rasmussen et al., 2009). Additionally, increased prenatal weight is positively associated with birth weight (Hickey, 2000). However, concerns about body image, among other factors, have been identified as reasons why some women choose not to breastfeed. These factors include anticipated stress, difficulty adjusting to the maternal role, concerns about physical issues, lack of breastfeeding knowledge, past negative experiences, mental health, negative attitudes toward feeding, myths, and the desire to involve the baby's father in feeding duties (Fei et al., 2022; Roberts et al., 2023).

Overall, the findings suggest an integrated framework in which psychological (body image), cognitive (beliefs and knowledge), and contextual (education and gestational stage) factors may interact to influence breastfeeding motivation, adding to a more comprehensive understanding of the phenomenon.

Limitations

The present study has limitations because the sample is not representative of the general population, was recruited by convenience, was drawn mostly from the Azores, and was assessed exclusively using self-report measures. Additionally, variables related to physical and mental health, intention to formula-feed, and social expectations or personal experiences were not explored. Although the weak-to-moderate correlations are significant, the cross-sectional design does not allow causal inferences. In addition, classifying scores by the theoretical midpoint of each scale is a descriptive convention rather than a validated cut-off, and the small size of the lower-motivation group (16 women) limited the power of the between-group comparisons. Therefore, it is important to interpret the results with caution and consider further studies that could improve the reliability and applicability of the conclusions.

Conclusions

Although most participants reported a positive body image and low levels of body image concern during pregnancy, these factors were significantly associated with breastfeeding motivation, even if effect sizes are modest. In addition, breastfeeding motivation is associated with sociodemographic factors, particularly educational level and pregnancy trimester, suggesting the role of cognitive and contextual determinants in maternal health behavior.

These findings have potential practical and clinical implications. Prenatal care may benefit from body image–focused and health literacy–based interventions that emphasize body functionality and adaptive cognitive appraisals to strengthen breastfeeding motivation. Healthcare professionals could proactively identify women at higher risk of lower motivation, particularly those with lower educational attainment or in earlier pregnancy stages, and provide targeted, evidence-based support to strengthen readiness and engagement in breastfeeding practices.

Future research should move beyond cross-sectional designs and adopt longitudinal, theory-driven approaches that clarify causal mechanisms and temporal dynamics. Greater emphasis should be placed on integrating psychological (e.g., mental health), interpersonal (e.g., social support), and cultural variables into comprehensive models of breastfeeding motivation. Additionally, using more diverse and representative samples is essential to ensure the robustness and generalizability of findings across populations.

Acknowledgments and Authorship

Acknowledgments: We thank all the participants.

Conflict of interest: The authors declare no conflicts of interest.

Funding sources: This study received no specific funding.

CRediT authorship contribution statement: J. M.: Conceptualization; Methodology; Software; Validation; Formal analysis; Investigation; Resources; Writing – original draft; Writing – review & editing; Visualization; Supervision; Project administration. **P. A.-S.:** Investigation; Resources; Writing – original draft; Writing – review & editing; Visualization. **F. C.**: Writing – original draft; Writing – review & editing; Visualization. **M. T.**: Conceptualization; Methodology; Software; Validation; Formal analysis; Investigation; Resources; Writing – original draft; Writing – review & editing; Visualization; Supervision; Project administration.

ORCID: J. Mendes, https://orcid.org/0000-0003-3612-5772; P. Alexandre-Sousa, https://orcid.org/0009-0007-1327-1626; F. Coelho, https://orcid.org/0000-0002-5275-2963; M. Tavares, https://orcid.org/0000-0002-2820-5660.

References

Acheampong, A. K., & Abukari, A. S. (2021). Nurses' and midwives' perspectives on how the pursuit for the 'perfect' body image affects their own breastfeeding practices: A qualitative study in Ghana. *International Breastfeeding Journal*, *16*(1), Article 74. https://doi.org/10.1186/s13006-021-00421-0

Aji, A. S., Lipoeto, N. I., Yusrawati, Y., Malik, S. G., Kusmayanti, N. A., Susanto, I., Majidah, N. M., Nurunniyah, S., Alfiana, R. D., Wahyuningsih, W., & Vimaleswaran, K. S. (2022). Association between pre-pregnancy body mass index and gestational weight gain on pregnancy outcomes: A cohort study in Indonesian pregnant women. *BMC Pregnancy and Childbirth*, *22*(1), Article 492. https://doi.org/10.1186/s12884-022-04815-8

Alleva, J. M., & Tylka, T. L. (2021). Body functionality: A review of the literature. *Body Image*, *36*, 149–171. https://doi.org/10.1016/j.bodyim.2020.11.006

Arnedillo-Sánchez, S., Suffo-Abouza, J., Carmona-Rodríguez, M., Morilla-Romero-de-la-Osa, R., & Arnedillo-Sánchez, I. (2024). Importance assigned to breastfeeding by Spanish pregnant women and associated factors: A survey-based multivariate linear correlation study. *Nutrients*, *16*(13), Article 2116. https://doi.org/10.3390/nu16132116

Avalos, L., Tylka, T. L., & Wood-Barcalow, N. (2005). The Body Appreciation Scale: Development and psychometric evaluation. *Body Image, 2*(3), 285–297. https://doi.org/10.1016/j.bodyim.2005.06.002

Ballesta-Castillejos, A., Gómez-Salgado, J., Rodríguez-Almagro, J., Ortiz-Esquinas, I., & Hernández-Martínez, A. (2020). Factors that influence mothers' prenatal decision to breastfeed in Spain. *International Breastfeeding Journal*, *15*(1), Article 97. https://doi.org/10.1186/s13006-020-00341-5

Brunton, R., Simpson, N., & Dryer, R. (2020). Pregnancy-related anxiety, perceived parental self-efficacy and the influence of parity and age. *International Journal of Environmental Research and Public Health*, *17*(18), Article 6709. https://doi.org/10.3390/ijerph17186709

Cash, T. F., & Smolak, L. (Eds.). (2012). *Body image: A handbook of science, practice, and prevention* (2nd ed.). Guilford Press.

Chakona, G. (2020). Social circumstances and cultural beliefs influence maternal nutrition, breastfeeding and child feeding practices in South Africa. *Nutrition Journal*, *19*(1), Article 47. https://doi.org/10.1186/s12937-020-00566-4

Crossland, A. E., Munns, L., Kirk, E., & Preston, C. E. J. (2023). Comparing body image dissatisfaction between pregnant women and non-pregnant women: A systematic review and meta-analysis. *BMC Pregnancy and Childbirth*, *23*(1), Article 709. https://doi.org/10.1186/s12884-023-05930-w

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Dryer, R., Graefin von der Schulenburg, I., & Brunton, R. (2020). Body dissatisfaction and fat talk during pregnancy: Predictors of distress. *Journal of Affective Disorders*, *267*, 289–296. https://doi.org/10.1016/j.jad.2020.02.031

Fei, Y., Zhang, Z.-Y., Fu, W.-N., Wang, L., & Mao, J. (2022). Why do first-time mothers not intend to breastfeed? A qualitative exploratory study on the decision-making of non-initiation in Jingzhou, China. *BMC Pregnancy and Childbirth*, *22*(1), Article 183. https://doi.org/10.1186/s12884-022-04494-5

Gillen, M. M., Markey, C. H., Rosenbaum, D. L., & Dunaev, J. L. (2021). Breastfeeding, body image, and weight control behavior among postpartum women. *Body Image*, *38*, 201–209. https://doi.org/10.1016/j.bodyim.2021.04.006

Gutierrez-de-Terán-Moreno, G., Ruiz-Litago, F., Ariz, U., Fernández-Atutxa, A., Mulas-Martín, M.-J., Benito-Fernández, E., & Sanz, B. (2022). Successful breastfeeding among women with intention to breastfeed: From physiology to socio-cultural factors. *Early Human Development*, *164*, Article 105518. https://doi.org/10.1016/j.earlhumdev.2021.105518

Hartley, E., Fuller-Tyszkiewicz, M., Skouteris, H., & Hill, B. (2021). A qualitative insight into the relationship between postpartum depression and body image. *Journal of Reproductive and Infant Psychology*, *39*(3), 288–300. https://doi.org/10.1080/02646838.2019.1710119

Hickey, C. A. (2000). Sociocultural and behavioral influences on weight gain during pregnancy. *The American Journal of Clinical Nutrition*, *71*(5), 1364S–1370S. https://doi.org/10.1093/ajcn/71.5.1364s

IBM Corp. (2021). *IBM SPSS Statistics for macOS* (Version 28.0.1.0) [Computer software]. IBM Corp.

Kochan, M., & Kabukcuoglu, K. (2022). 'I wish I had my pre-pregnancy body after birth… but I have to be supported': A theoretical study based on body image perception in working mothers during the postpartum period. *Journal of Obstetrics and Gynaecology*, *42*(5), 1103–1111. https://doi.org/10.1080/01443615.2021.2006160

Linde, K., Lehnig, F., Nagl, M., Stepan, H., & Kersting, A. (2022). Course and prediction of body image dissatisfaction during pregnancy: A prospective study. *BMC Pregnancy and Childbirth*, *22*(1), Article 719. https://doi.org/10.1186/s12884-022-05050-x

Mancini, K. (2017). Body image, eating attitudes and breastfeeding intention: Implications for mental health and maternal child nurses. *Issues in Mental Health Nursing*, *38*(9), 750–755. https://doi.org/10.1080/01612840.2017.1324928

Marôco, J., & Garcia-Marques, T. (2006). Qual a fiabilidade do alfa de Cronbach? Questões antigas e soluções modernas? *Laboratório de Psicologia*, *4*(1), 65–90. https://doi.org/10.14417/lp.763

Marta-Simões, J., Mendes, A. L., Trindade, I. A., Oliveira, S., & Ferreira, C. (2016). Validation of the Body Appreciation Scale-2 for Portuguese women [Abstract P82]. *BMC Health Services Research*, *16*(Suppl. 3), Article 200. https://doi.org/10.1186/s12913-016-1423-5

Mendes, J., Rego, R., & Pereira, V. (2019). Tradução e adaptação da escala CARSAL/CARVAL para Portugal: Estudo psicométrico. *Psicologia*, *33*(1), 47–54. https://doi.org/10.17575/rpsicol.v33i1.1425

Mendes, J., Silva, S., & Tavares, M. (2024). Escala de preocupação com a imagem corporal durante a gravidez: Tradução e validação para a população portuguesa. *Revista de Enfermagem Referência*, *6*(3, Supl. 1), Article e32417. https://doi.org/10.12707/RVI23.87.32417

Modak, A., Ronghe, V., & Gomase, K. P. (2023). The psychological benefits of breastfeeding: Fostering maternal well-being and child development. *Cureus*, *15*(10), Article e46730. https://doi.org/10.7759/cureus.46730

More, K. R., Hayes, N. L., & Phillips, L. A. (2024). Contrasting constructs or continuum? Examining the dimensionality of body appreciation and body dissatisfaction. *Psychology & Health*, *39*(3), 336–357. https://doi.org/10.1080/08870446.2022.2055025

Musaei, S. (2023). The effect of pregnancy on the skin. *Eurasian Journal of Chemical, Medicinal and Petroleum Research, 2*(1), 17–23. https://doi.org/10.5281/ZENODO.7353400

Nelas, P. A., Ferreira, M., & Duarte, J. C. (2008). Motivação para a amamentação: Construção de um instrumento de medida. *Referência – Revista de Enfermagem*, *2*(6), 39–56. https://www.index-f.com/referencia/2008pdf/063956.pdf

Néné, M., & Sequeira, C. (2022). *Investigação em enfermagem: Teoria e prática*. Lidel.

Noroozi Dashtaki, M., Zamani Zarchi, M. S., Hosseinzadeh Oskouei, A., Baghbani Nader, M., & Kianimoghadam, A. S. (2024). Body image concern and sexual function relationship in the postpartum period: The mediating role of sexual self-esteem. *Journal of Holistic Nursing and Midwifery*, *34*(3), 245–253. https://doi.org/10.32598/jhnm.34.3.2621

Owen, A., Cameron, L., Cassidy, H., & Taylor, J. (2024). The body image experiences of breastfeeding mothers in the UK: A qualitative exploration. *Journal of Health Psychology*, *29*(4), 275–288. https://doi.org/10.1177/13591053231206159

Pan, S., & Mou, Y. (2024). Framing the discourse of pregnancy and childbirth: A content analysis of WeChat public account posts from the postfeminist perspective. *Women's Studies in Communication*, *47*(2), 197–217. https://doi.org/10.1080/07491409.2024.2331172

Piro, S. S., & Ahmed, H. M. (2020). Impacts of antenatal nursing interventions on mothers' breastfeeding self-efficacy: An experimental study. *BMC Pregnancy and Childbirth*, *20*(1), Article 19. https://doi.org/10.1186/s12884-019-2701-0

Rasmussen, K. M., Catalano, P. M., & Yaktine, A. L. (2009). New guidelines for weight gain during pregnancy: What obstetrician/gynecologists should know. *Current Opinion in Obstetrics & Gynecology*, *21*(6), 521–526. https://doi.org/10.1097/GCO.0b013e328332d24e

Rivi, V., Petrilli, G., & Blom, J. M. C. (2020). Mind the mother when considering breastfeeding. *Frontiers in Global Women's Health*, *1*, Article 3. https://doi.org/10.3389/fgwh.2020.00003

Roberts, D., Jackson, L., Davie, P., Zhao, C., Harrold, J. A., Fallon, V., & Silverio, S. A. (2023). Exploring the reasons why mothers do not breastfeed, to inform and enable better support. *Frontiers in Global Women's Health*, *4*, Article 1148719. https://doi.org/10.3389/fgwh.2023.1148719

Rodgers, R. F., Campagna, J., Hayes, G., Sharma, A., Runquist, E., Fiuza, A., Coburn-Sanderson, A., Zimmerman, E., & Piran, N. (2024). Sociocultural pressures and body related experiences during pregnancy and the postpartum period: A qualitative study. *Body Image*, *48*, Article 101643. https://doi.org/10.1016/j.bodyim.2023.101643

Rodgers, R. F., O'Flynn, J. L., Bourdeau, A., & Zimmerman, E. (2018). A biopsychosocial model of body image, disordered eating, and breastfeeding among postpartum women. *Appetite*, *126*, 163–168. https://doi.org/10.1016/j.appet.2018.04.007

Rodrigues, C. F. de S., Lima, F. J. C. de, & Barbosa, F. T. (2017). Importância do uso adequado da estatística básica nas pesquisas clínicas. *Brazilian Journal of Anesthesiology*, *67*(6), 619–625. https://doi.org/10.1016/j.bjan.2017.01.003

Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health Education Monographs, 2*(4), 328–335. https://doi.org/10.1177/109019817400200403

Schalla, S., Witcomb, G., & Haycraft, E. (2017). Body shape and weight loss as motivators for breastfeeding initiation and continuation. *International Journal of Environmental Research and Public Health*, *14*(7), Article 754. https://doi.org/10.3390/ijerph14070754

Simbar, M., Nazarpour, S., Alavi Majd, H., Dodel Andarvar, K., Jafari Torkamani, Z., & Alsadat Rahnemaei, F. (2020). Is body image a predictor of women's depression and anxiety in postmenopausal women? *BMC Psychiatry*, *20*(1), Article 202. https://doi.org/10.1186/s12888-020-02617-w

Sloan, S., Sneddon, H., Stewart, M., & Iwaniec, D. (2006). Breast is best? Reasons why mothers decide to breastfeed or bottlefeed their babies and factors influencing the duration of breastfeeding. *Child Care in Practice*, *12*(3), 283–297. https://doi.org/10.1080/13575270600761743

Sohrabi, Z., Kazemi, A., Farajzadegan, Z., & Janighorban, M. (2023). Body perception in pregnant women: A qualitative study. *BMC Pregnancy and Childbirth*, *23*(1), Article 165. https://doi.org/10.1186/s12884-023-05467-y

Sommerfeldt, B., Skårderud, F., Kvalem, I. L., Gulliksen, K., & Holte, A. (2024). Trajectories of severe eating disorders through pregnancy and early motherhood. *Frontiers in Psychiatry*, *14*, Article 1323779. https://doi.org/10.3389/fpsyt.2023.1323779

Sosseh, S. A. L., Barrow, A., & Lu, Z. J. (2023). Cultural beliefs, attitudes and perceptions of lactating mothers on exclusive breastfeeding in The Gambia: An ethnographic study. *BMC Women's Health*, *23*(1), Article 18. https://doi.org/10.1186/s12905-023-02163-z

Tavares, M. F. M., Santos, A. P., Silva, S., & Mendes, J. (2023). The influence of pregnant's body image on the decision to breastfeed: A systematic review. *Revista Portuguesa de Investigação Comportamental e Social*, *9*(1), Article 281. https://doi.org/10.31211/rpics.2023.9.1.281

Tylka, T. L., & Wood-Barcalow, N. L. (2015a). The Body Appreciation Scale-2: Item refinement and psychometric evaluation. *Body Image*, *12*, 53–67. https://doi.org/10.1016/j.bodyim.2014.09.006

Tylka, T. L., & Wood-Barcalow, N. L. (2015b). What is and what is not positive body image? Conceptual foundations and construct definition. *Body Image, 14*, 118–129. https://doi.org/10.1016/j.bodyim.2015.04.001

Uçar, T., Güney, E., Cesur, B., & Yurtsal, Z. B. (2018). The scale for body image concerns during pregnancy: Development and validation. *Perspectives in Psychiatric Care, 54*(3), 416–421. https://doi.org/10.1111/ppc.12287

Ünsal Çimen, B., Akdağ Topal, C., & Boztepe, H. (2024). Relationship between breastfeeding self-efficacy, breastfeeding motivation, and self-esteem. *Mediterranean Nursing and Midwifery*, *4*(2), 105–111. https://doi.org/10.4274/MNM.2023.23173

Wu, Y., Liu, W., Liu, X., Li, Y., Wang, Y., Chu, Y., Pi, Q., Zhao, X., Lu, J., & Wang, A. (2023). Breastfeeding competency and its influencing factors among pregnant women in third trimester pregnancy: A cross-sectional study. *Scientific Reports*, *13*(1), Article 1240. https://doi.org/10.1038/s41598-023-28477-4