Maternal anxiety and its interference in breastfeeding self-efficacy

Ansiedade materna e sua interferência na autoeficácia para amamentação
Ansiedad materna y su interferencia en la autoeficacia para la lactancia

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Abstract

Objective: To analyze the relationship of maternal anxiety symptoms with breastfeeding self-efficacy and duration of exclusive breastfeeding.

Methods: Prospective cohort study developed in a Breastfeeding Center of a university hospital in the city of São Paulo. The sample consisted of 83 postpartum women in follow-up for 210 days after delivery. The Anxiety Subscale of the Edinburgh Postnatal Depression Scale and the Breastfeeding Self-Efficacy Scale were used.

Results: The mean total score for anxiety was 3.76 points and for maternal self-efficacy to breastfeed was 128.58. Over the months, anxiety symptoms and breastfeeding self-efficacy showed similar behavior and were not statistically significant. The following risk factors were associated with the increase in anxiety symptoms: abortion, previous history of depression, complaints about oneself, unsatisfactory family and marital relationships, worsening of the relationship with the partner after the baby was born and lower maternal breastfeeding self-efficacy, reflected in the technique domain and intrapersonal thoughts domain. The time between cessation of exclusive breastfeeding and anxiety was not statistically different.

Conclusion: The investigated postpartum women had a high prevalence of anxiety symptoms, with significant interference in the perception and confidence in their ability and maternal capability to successfully breastfeed the baby. There was no association between anxiety symptoms and early breastfeeding cessation.

Resumo

Objetivo: Analisar a relação entre os sintomas de ansiedade materna com a autoeficácia para a amamentação e a duração do aleitamento materno exclusivo.

Métodos: Estudo de coorte prospectivo, desenvolvido num Centro de Aleitamento Materno de um hospital universitário do município de São Paulo. A amostra foi constituída por 83 puérperas, acompanhadas até 210 dias após o parto. Foram utilizadas a Subescala de Ansiedade da Escala de Depressão Pós-natal de Edimburgo e a Escala de Autoeficácia para Amamentação.

Resultados: A média de escore total de ansiedade foi 3,76 pontos e da autoeficácia materna para amamentar 128,58. Ao longo dos meses os sintomas de ansiedade e a autoeficácia para amamentação apresentaram comportamento semelhante e não significativos estatisticamente. São fatores de risco associados ao incremento dos sintomas ansiosos: aborto, história prévia de depressão, queixa em relação a si mesma, relacionamento familiar e conjugal insatisfatório, piora na relação com o parceiro após o nascimento do bebê e menor autoeficácia materna para amamentação, refletidos nos domínios técnico e pensamentos intrapessoais. O tempo entre a interrupção do aleitamento materno exclusivo e a ansiedade não foi estatisticamente diferente.

Conclusão: As puérperas investigadas apresentaram elevada prevalência de sintomatologia ansiosa, com interferência significativa na percepção e confiança em sua capacidade e habilidade materna de amamentar com sucesso o bebê. Não houve associação entre os sintomas de ansiedade e o desmame precoce.

Resumen

Objetivo: Analizar la relación entre los síntomas de ansiedad materna y la autoeficacia para la lactancia y la duración de la lactancia materna exclusiva.

Métodos: Estudio de cohorte prospectivo, realizado en un Centro de Lactancia Materna de un hospital universitario en el municipio de São Paulo. La muestra estuvo compuesta por 83 puérperas, a quienes se les realizó un seguimiento hasta los 210 días después del parto. Se utilizó la Subescala de Ansiedad de la Escala de Depresión Posnatal de Edimburgo y la Escala de Autoeficacia para la Lactancia.

Resultados: El promedio de la puntuación total de ansiedad fue de 3,76 puntos y de autoeficacia materna para la lactancia 128,58. A lo largo de los meses, los síntomas de ansiedad y la autoeficacia para la lactancia presentaron un comportamiento semejante y no significativo estadísticamente. Los factores de riesgo asociados al aumento de los síntomas ansiosos son: aborto, historia previa de depresión, queja con relación a sí misma, relación familiar y conyugal insatisfactoria, deterioro en la relación con la pareja luego del nacimiento del bebé y menor autoeficacia materna para la lactancia, reflejados en los dominios técnico y pensamientos intrapersonales. El tiempo entre la interrupción de la lactancia materna exclusiva y la ansiedad no fue estadísticamente diferente.

Conclusión: Las puérperas investigadas presentaron una elevada prevalencia de sintomatología ansiosa, con interferencia significativa en la percepción y confianza de su capacidad y habilidad materna de amamantar con éxito al bebé. No hubo asociación entre los síntomas de ansiedad y el destete temprano.

Introduction

The pregnancy-puerperal cycle is a period of crisis for women, who need to adapt to the characteristic biopsychosocial changes of this phase and reconcile the demands and challenges of motherhood with family, marital and professional roles played socially. It is expected and normal that women feel anxious, insecure and fearful in this period. However, some experience this emotional state in such an intense and unpleasant way that they become psychically ill. Therefore, pregnancy is not a protective factor for maternal mental health, on the contrary, it places women in a position of greater vulnerability to psychological distress.[1,2]

Anxiety is one of the most prevalent maternal mental disorders in the postpartum period; 14% in high per capita income countries and 26% in low-middle income countries.[3] Excessive and enduring worry, intrusive and persistent thinking that something bad is going to happen to the baby, frustration, guilt, restlessness, lack of concentration, muscle tension and sleep disturbances are symptoms reported by postpartum women, who may experience difficulty in interacting with the baby, perception of a lower ability to perform the maternal role successfully, and parental dissatisfaction.[3-5]

The following are considered risk factors for postpartum anxiety: previous history of anxiety and/or depression, complications in reproductive life including the current pregnancy, unplanned pregnancy, maternal blues, absent or fragile social support, stress, low self-esteem and difficulty in breastfeeding.[5-8]

The causal relationship between anxiety and breastfeeding is unclear. On the one hand, postpartum women with high levels of anxiety are less likely to initiate and maintain breastfeeding, especially exclusive breastfeeding for six months, and on the other hand, difficulties in breastfeeding are a trigger for the increase in anxious symptoms that result in maternal feelings of less ability to respond sensitively and effectively to the baby's needs.[6,9,10]

Breastfeeding is an important strategy in promoting the mother-baby bond and the biopsychosocial health of both. Maternal self-efficacy to breastfeed is an important modifiable factor as it has a significant impact on the puerperal woman's motivation to initiate and persist in the continuity of breastfeeding when facing the difficulties arising from this practice.[11]

Women with a positive breastfeeding experience (prior experience), those who observe other women's breastfeeding success (vicarious or observational experience), receive support and encouragement from significant others, including partners, family members, and/or healthcare professionals, and who feel calm, less anxious and depressed (emotional reaction), have greater breastfeeding self-efficacy.[1,11,12]

Considering the negative impact of anxiety on women's and children's health, since children of anxious mothers can present impaired affective, social and cognitive development, and the importance of breastfeeding in promoting the health of postpartum women and their babies, the present study sought to analyze the relationship of maternal

anxiety symptoms with breastfeeding self-efficacy and duration of exclusive breastfeeding.

Methods

This is a prospective cohort study extracted from a larger study titled "The interface between post-partum depression symptoms and the breastfeeding process" approved under number 1.180.500 of the Research Ethics Committee of the School of Nursing at Universidade de São Paulo and developed at the Breastfeeding Center of the Universidade Federal de São Paulo.

Women who were exclusively breastfeeding and sought the service in less than 60 days postpartum between July 2013 and April 2016 were included. Postpartum women who did not speak Portuguese were not included in the study. The sample calculated for the main study consisted of 76 participants monitored for at least 180 days, considering a 20% incidence of women with postpartum depression,[13] an error of 9% and a confidence limit of 95%. A total of 208 postpartum women agreed to participate in the study, 125 did not remain during the entire follow-up period and 83 were in follow-up for 210 days, the period determined as the cutoff for analysis in this study.

Data collection was performed by two nurses trained by the researcher responsible for the larger study, took place in person at the time of inclusion of participants and via telephone in subsequent collections. Women were in follow-up for 210 days postpartum. The variables collected were: sociodemographic (age, schooling, occupation, marital status and family income), lifestyle (use of tobacco and/or illicit drugs and consumption of alcoholic beverages), obstetric (number of pregnancies, parity, abortion, planning and desire for the current pregnancy, number of antenatal consultations and complications during pregnancy, childbirth and/or postpartum), psychiatric history (mental disorder and/or depression throughout life), breastfeeding characteristics (previous breastfeeding experience, maternal breastfeeding self-efficacy, type of breastfeeding practiced and complications in breastfeed-

ing) and relational (complaints about oneself, partner and/or current child and satisfaction with marital relationship) and anxiety symptoms.

The presence and intensity of anxious symptoms were assessed using the Anxiety Subscale of the Edinburgh Postnatal Depression Scale (EPDS-3A).[14,15] The EPDS is a Likert-type scale composed of 10 statements, each one with four possible answers (0 to 3 points), depending on the severity or duration of symptoms, experienced or not, in the week before the application. The EPDS-3A is composed of the following items: 3. I have blamed myself unnecessarily when things went wrong, 4. I have been anxious or worried for no good reason, and 5. I have felt scared or panicky for no very good reason. It is used for screening anxiety symptoms and the score varies between 0 and 9 points. Considering the absence of a validated cutoff point for the EPDS-3A in the Brazilian population, the mean total score of investigated women was adopted as a categorization parameter.

The Breastfeeding Self-Efficacy Scale (BSES),[16] was used to assess maternal breastfeeding self-efficacy. It is composed of 33 statements and structured in two domains: Technique (20 items related to the technical management of breastfeeding) and Intrapersonal Thoughts (13 items about women's desire, motivation and satisfaction with breastfeeding). For each statement, there is a Likert-type score ranging from 1 (strongly disagree) to 5 (strongly agree) and the total score ranges from 33 to 165 points. Respecting the original assumption of the scale, the mean total score guides the degree of agreement of the investigated woman and is considered classificatory.[11,17] For the analysis of implicit categories in the technique domain (TD) and intrapersonal thoughts domain (ID), the grouping of statements proposed in the study of translation and validation of the scale into Brazilian Portuguese was adopted,[16] namely: Technique Domain (TD): Adaptation to Daily Life (statements 31 and 32), Baby (statements 6, 10, 14, 15 , 18 and 33), Good Latch (statements 4, 12, and 30) and Breastfeeding Technique (statements 1, 2, 5, 22, 26 and 28) and Intrapersonal Thoughts Domain (ID): Adaptation to everyday life (statements 7, 8, 20 and 27),

Breastfeeding technique (statements 3, 17 and 24), Motivation (statements 9, 19, 21 and 23) and Satisfaction (statements 13 and 25).

The analysis of anxiety symptoms, maternal breastfeeding self-efficacy and time until cessation of exclusive breastfeeding, as well as the association between these variables was performed using the log-rank test to compare the survival curves (Kaplan-Meier) in bivariate analysis and the Cox survival model in multivariate analysis. To assess if values of the scales are different over the seven application times, the nonparametric ANOVA test for repeated measures was performed, considering only time (application moments) as a factor. The R 3.1.2. software was used for data analysis and the significance level adopted for all analyzes was 0.05.

Results

Participants' mean age was 30 years old, 41% had secondary education and 40% had higher education, 50% had formal work, 87% lived with a partner and 54% had a family income between one and three minimum wages. Regarding lifestyle habits, 6% reported using cigarettes, 5% using illicit drugs and 10% drinking alcohol. The mean number of pregnancies was 2.26 (SD±1.65), parity 1.76 (SD±1.04), abortion 0.47 (SD±1.07), 51% did not plan/want the pregnancy, 97% had ≥6 antenatal consultations, 52% reported complications during pregnancy, 18% during delivery and 19% in the postpartum period. The diagnosis of mental disorder throughout life was self-reported by 30% of postpartum women, 27% of which were related to depression. With regard to breastfeeding, 38% had breastfed their other children and 62% had experienced some breastfeeding problem in the current pregnancy. Complaints about themselves, the child and the partner were present in 33%, 12% and 14% of women, respectively. After arrival of the baby, 49% of women realized their marital relationship worsened, although for 93% the relationship with the partner was satisfactory most of the time. The mean total score of the EPDS-3A in the first 60 days postpartum was 3.76 (SD±2.38) and categorized into ≤4 and ≥5 points. Of all postpartum women, 65% (134/208) had a score ≤4 and 35% (73/208), a score ≥5. The mean BSES score in the same period was 128.58 (SD±21.16). Over time, EPDS-3A (p=0.0639) and BSES (p=0.0879) show similar and non-statistically significant results. The analysis of the graph (Figure 1) shows an improvement trend in the presence and intensity of anxiety symptoms over the months.

Although the crossing of the total score of the EPDS-3A subscale with quantitative variables revealed statistical significance with the number of abortions (p-0.037), total BSES (p-0.001) and its technique domain (p-0.003) and intrapersonal thoughts domain (p-0.005), no expressive result was found for any of the cases, showing a weak correlation (positive ≤0.40 and negative correlation > -0.40), as displayed in table 1.

In table 2, the analysis of the categorized EPDS-3A and the total BSES, its domains and implicit
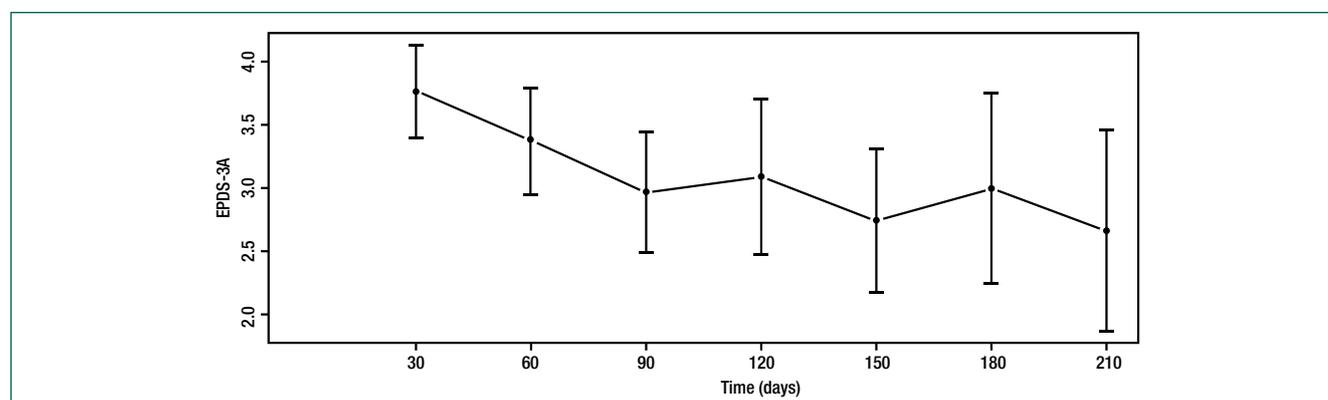
Figure 1. Total EPDS-3A scores at 30 to 210 days postpartum follow-up

Table 1. Spearman correlation of the EPDS-3A with quantitative variables and the BSES scale and its domains

Factor	Correlation	p-value
Age	0.05	0.436
Number of abortions	0.14	0.037
Number of pregnancies	0.13	0.067
Parity	0.06	0.376
Total BSES	-0.23	0.001
BSES technique domain (TD)	-0.2	0.003
BSES intrapersonal thoughts domain (ID)	-0.2	0.005

categories shows a statistically significant association between postpartum women with above-average anxiety symptoms (score ³5) and the BSES categories Baby (p=0.007) of the technique domain and BSES Adaptation to daily life (0.001) of the intrapersonal thoughts domain.

The following variables had a statistically significant association with the EPDS-3A categorized: previous episode of depression (p-0.001), having a self-complaint (p-0), unsatisfactory marital relationship (p-0.013), unsatisfactory family relationship (p-0 .01), and worsening of the marital relationship after the child's birth (p-0.001). The analysis of time until interruption of exclusive breastfeeding with the categorized total EPDS-3A score

reveals an early interruption of exclusive breastfeeding for the group with ≥5 points. The median time until breastfeeding interruption for the group with ≤4 points was 37 days postpartum, while for the group with ≥5 points the median time until breastfeeding interruption was 30 days. The time to cessation of breastfeeding between the EPDS-3A ranges are not statistically different (p-value < 0.103) when using the Cox model only with the EPDS-3A scale.

Discussion

The presence of anxiety symptoms of significant intensity found in 35% of postpartum women in the present study is worrying and compatible with the prevalence of 2-45% found in the scientific literature.[2,6,12] The lack of consensus between anxiety screening scales in the postpartum period and the difference in sample size and study designs justify the wide variation among studies on the prevalence of anxiety in this period.[2,6,8]

Abortion, previous history of depression, unsatisfactory family and/or marital relationship,

Table 2. Association of EPDS-3A with BSES

Factor	Category	Mean	Standard deviation	Standard error	Minimum	Maximum	n	p-value
BSES total	≤4	131.24	20.34	1.75	55	167	135	0.011
	≥5	123.67	21.89	2.56	64	164	73	
BSES technique domain (TD)	≤4	78.13	12.67	1.1	38	100	133	0.024
	≥5	73.62	14.22	1.66	35	99	73	
BSES adaptation to daily life (TD)	≤4	8.36	1.7	0.15	3	10	135	0.279
	≥5	8	1.98	0.23	2	10	73	
BSES baby (TD)	≤4	22.14	4.44	0.38	8	30	135	0.007
	≥5	20.36	4.88	0.57	9	30	73	
BSES maternal milk (TD)	≤4	11.59	3.17	0.27	3	15	135	0.217
	≥5	11.07	3.16	0.37	3	15	73	
BSES good latch (TD)	≤4	12.69	2.32	0.2	6	15	134	0.223
	≥5	12.14	2.88	0.34	3	15	73	
BSES breastfeeding technique (TD)	≤4	23.34	4.08	0.35	11	30	134	0.077
	≥5	22.05	4.81	0.56	9	30	73	
BSES intrapersonal thoughts domain (ID)	≤4	53.36	8.52	0.75	17	65	128	0.09
	≥5	51.58	8.15	0.98	27	65	69	
BSES adaptation to everyday life (ID)	≤4	16.44	2.9	0.25	5	20	135	0.001
	≥5	15.04	2.96	0.35	8	20	72	
BSES motivation (ID)	≤4	17.54	2.75	0.24	6	20	133	0.851
	≥5	17.58	2.84	0.33	7	20	73	
BSES satisfaction (ID)	≤4	7.96	1.9	0.17	2	10	130	0.579
	≥5	7.8	1.98	0.24	2	10	70	
BSES breastfeeding technique (ID)	≤4	11.59	2.64	0.23	4	15	135	0.099
	≥5	11.01	2.56	0.3	5	15	73	

*Mann-Witney test

worsening of the relationship with the partner after birth of the baby, self-complaint and maternal breastfeeding self-efficacy were associated with an increase in anxiety symptoms among the women investigated.

During their reproductive life, one in every three women has a miscarriage, which is an emotionally devastating experience with a negative psychological impact on subsequent pregnancies. Losing the innocence that a pregnancy diagnosis is synonymous with having a baby in one's arms generates a feeling of insecurity in women regarding their reproductive and mothering capacity. Evidence shows that women with a history of miscarriage have more symptoms of anxiety and/or depression in subsequent pregnancies, confirming our findings.[18-20]

Throughout their lives, 20% of women experience a depressive episode.[21] The negative repercussion of this disorder on the physical, psychological and social health of these women, the lack of appropriate diagnosis and treatment in 50% of cases and the positive association with maternal mental disorders in the perinatal period is worrying and reinforces the finding in this study.[21]

Although maternal anxiety in the postpartum period is normal and adaptive, when intense and persistent, it has a negative impact on women's attention and ability to concentrate. When less sensitive and attuned to their babies, women tend to respond to their demands in a less contingent, direct and effective way, thereby compromising the interaction between them and the successful breastfeeding.[2,6,8,22]

As days go by, the mother-baby duo has more time and opportunity to interact and get to know each other, which favors intimacy and communication between them. In this sense, the perception of their ability to identify and recognize the signs of the baby's needs and satisfactorily meet them tends to reduce maternal anxiety, a result found in this study and in others.[2,3,10]

The association between unsatisfactory marital and/or family relationships reported by postpartum women and associated with higher levels of anxious symptoms, reveals a lower perception of practical and emotional support; potentiating feelings of vulnerability and inadequacy to perform the socially idealized maternal role.[8] At birth, the human baby is totally dependent on an adult for survival, demanding constant care from the person performing the maternal role. In this scenario, the availability and dedication of the woman to her partner or vice-versa faces significant changes. Depending on the effectiveness of communication and partnership between them, feelings of frustration, resentment, disharmony and marital dissatisfaction can arise and negatively impact maternal mental health.[23]

Unlike social expectations, women with persistent anxious symptoms tend to experience motherhood as gloomy and permeated by feelings of guilt, sadness, fatigue, low self-esteem and helplessness. The lack of maternal confidence in performing day-to-day activities and taking care of the baby as desired, added to fear, tension, intrusive and recurrent thoughts that threaten the life or wellbeing of the child are common experiences that generate much suffering and anguish for these women who tend to hide their concerns and feelings for fear of being judged and doubly stigmatized: having a mental illness and being a mother with a mental illness.[6,8,9,22]

Studies reinforce the negative impact of anxiety on maternal breastfeeding self-efficacy, as identified among our respondents.[1,6,9] Since breastfeeding self-efficacy is multifactorial, in our study, the risk of anxiety was analyzed separately with technique domains (p-0.003) and intrapersonal thoughts domains (p-0.005) and a positive association was identified with both.

Postpartum women with higher levels of anxiety felt less secure in relation to communication, interaction and perception of the baby's satiety signals, in addition to difficulty in reconciling breastfeeding with other socially developed roles, especially due to the time demanded in this practice and the lack of perceived support from the partner, family and friends, evidenced in categories Baby (p=0.007) of the technique domain and Adaptation to daily life (p=0.001) of the intrapersonal thoughts domain.

Evidences confirm the above findings by showing that postpartum anxiety is associated with negative maternal attitude, lower parental self-confidence, lower ability to face problem situations and interpret the baby's sleep, affection, hunger and/or satiety signals, increasing the risk of early interruption of breastfeeding.[1,7-9,24-27]

Mismatches in this communication tend to negatively influence the mother-baby relationship, generating insecurity and affecting maternal self-esteem. In this scenario, the impossibility of fully and satisfactorily experiencing motherhood and breastfeeding ends up interfering with the affective relationship of those involved.[26,27]

Potential limitations of the study are the impossibility of generalizing the findings to the general population and the non-use of diagnostic interviews, gold standard for the identification of women in need of referrals and treatment of anxious symptoms.

Conclusion

Anxiety symptoms of significant intensity were present in 35% of postpartum women. Previous history of abortion and depression, unsatisfactory family and/or marital relationship, worsening of the relationship with the partner after the baby was born, self-complaint and maternal breastfeeding self-efficacy were associated with an increase in anxiety symptoms. Postpartum women with above-average anxiety symptoms are less secure in relation to the categories: Baby in the technique domain and Adaptation to daily life in the intrapersonal thoughts domain. There was no correlation of time until breastfeeding interruption with anxiety symptoms.

Collaborations

Abuchaim ES, Marcacine KO, Coca KP and Silva IA contributed to the study design, data analysis and interpretation, article writing, relevant critical review of the intellectual content and approval of the final version to be published.

References

1. Mikšić Š, Uglešić B, Jakab J, Holik D, Miloštić Srb A, Degmečić D. Positive Effect of Breastfeeding on Child Development, Anxiety, and Postpartum Depression. Int J Environ Res Public Health. 2020;17(8):2725.

2. Ali E. Women's experiences with postpartum anxiety disorders: a narrative literature review. Int J Womens Health. 2018;10:237-49. Review.

3. Dennis CL, Falah-Hassani K, Shiri R. Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis. Br J Psychiatry. 2017;210(5):315-23. Review.

4. Fulton JM, Mastergeorge AM, Steele JS, Hansen RL. Maternal perceptions of the infant: Relationship to maternal self-efficacy during the first six weeks' postpartum. Infant Ment Health J. 2012;33(4):329-38.

5. Mohammad Redzuan SA, Suntharalingam P, Palaniyappan T, Ganasan V, Megat Abu Bakar PN, Kaur P, et al. Prevalence and risk factors of postpartum depression, general depressive symptoms, anxiety and stress (PODSAS) among mothers during their 4-week postnatal follow-up in five public health clinics in Perak: a study protocol for a cross-sectional study. BMJ Open. 2020;10(6):e034458.

6. Dennis CL, Brown HK, Falah-Hassani K, Marini FC, Vigod SN. Identifying women at risk for sustained postpartum anxiety. J Affect Disord. 2017;213:131-7.

7. Field T. Postnatal anxiety prevalence, predictors and effects on development: a narrative review. Infant Behav Dev. 2018;51:24-32. Review.

8. Oh S, Chew-Graham CA, Silverwood V, Shaheen SA, Walsh-House J, Sumathipala A, et al. Exploring women's experiences of identifying, negotiating and managing perinatal anxiety: a qualitative study. BMJ Open. 2020;10(12):e040731.

9. Minamida T, Iseki A, Sakai H, Imura M, Okano T, Tanii H. Do postpartum anxiety and breastfeeding self-efficacy and bonding at early postpartum predict postpartum depression and the breastfeeding method? Infant Ment Health J. 2020;41(5):662-76.

10. Dennis CL, Falah-Hassani K, Brown HK, Vigod SN. Identifying women at risk for postpartum anxiety: a prospective population-based study. Acta Psychiatr Scand. 2016;134(6):485-93.

11. Dennis CL. Theoretical underpinnings of breastfeeding confidence: a self-efficacy framework. J Hum Lact. 1999;15(3):195-201. Review.

12. Fallon V, Groves R, Halford JC, Bennett KM, Harrold JA. Postpartum Anxiety and Infant-Feeding Outcomes. J Hum Lact. 2016;32(4):740-58. Review.

13. Lobato G, Moraes CL, Reichenheim ME. Magnitude da depressão pós-parto no Brasil: uma revisão sistemática. Rev Bras Saúde Materno Infantil. 2011;11(4):369-79.

14. Santos MF, Martins FC, Pasquali L. Escala de autoavaliação de depressão pós-parto: estudo no Brasil. Rev Psiq Clin. 1999;26(2):e90-95.

15. Matthey S, Fisher J, Rowe H. Using the Edinburgh postnatal depression scale to screen for anxiety disorders: conceptual and methodological considerations. J Affect Disord. 2013;146(2):224-30. Review.

16. Oriá MO, Ximenes LB. Translation and cultural adaptation of the Breastfeeding Self-Efficacy Scale to Portuguese. Acta Paul Enferm. 2010;23(2):230-8.

17. Blyth R, Creedy D, Moyle W, Pratt J, De Vries SM, Haely G. Breastfeeding duration in an Australian population: the influence of modifiable antenatal factors. J Hum Lact. 2004;20(1):30-8.

18. Bergner A, Beyer R, Klapp BF, Rauchfuss M. Pregnancy after early pregnancy loss: a prospective study of anxiety, depressive symptomatology and coping. J Psychosom Obstet Gynaecol. 2008;29(2):105-13.

19. Smorti M, Ponti L, Simoncini T, Mannella P, Bottone P, Pancetti F, et al. Pregnancy after miscarriage in primiparae and multiparae: implications for women's psychological well-being. J Reprod Infant Psychol. 2021;39(4):371-81.

20. Farren J, Mitchell-Jones N, Verbakel JY, Timmerman D, Jalmbrant M, Bourne T. The psychological impact of early pregnancy loss. Hum Reprod Update. 2018;24(6):731-49. Review.

21. Gonçalves AM, Teixeira MT, Gama JR, Lopes CS, Silva GA, Gamarra CJ, et al. Prevalência de depressão e fatores associados em mulheres atendidas pela Estratégia de Saúde da Família. J Bras Psiq. 2018;67(2):101-9.

22. Fulton JM, Mastergeorge AM, Steele JS, Hansen RL. Maternal perceptions of the infant: Relationship to maternal self-efficacy during the first six weeks' postpartum. Infant Ment Health J. 2012;33(4):329-38.

23. Faisal-Cury A, Tabb K, Matijasevich A. Partner relationship quality predicts later postpartum depression independently of the chronicity of depressive symptoms. Braz J Psychiatry. 2021;43:12-21.

24. Fallon V, Halford JC, Bennett KM, Harrold JA. Postpartum-specific anxiety as a predictor of infant-feeding outcomes and perceptions of infant-feeding behaviours: new evidence for childbearing specific measures of mood. Arch Womens Ment Health. 2018;21:181-91.

25. Moraes AO, Magalhães EI, Vilela AA, Kac G, Vaz JS. Sintomas de ansiedade gestacional e pós-parto e intenção de amamentar exclusivo até seis meses: resultado de uma coorte prospectiva do Rio de Janeiro. Demetra. 2021;16:e51297.

26. Chemello MR, Levandowisk DC, Donelli TM. Ansiedade materna e maternidade: revisão crítica da literatura. Interação Psicol. 2017;21(1):78–89.

27. Hankel MA, Kunseler FC, Oosterman M. Early breastfeeding experiences predict maternal self-efficacy during the transition to parenthood. Breastfeed Med. 2019;14(8):568-74.