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Does the Anxiety in Perinatal Period Influence the Breastfeeding?

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Abstract

Background: The breastfeeding is an important protective factor for infant development due its benefits for the infant health and growing and, consequently, for the mother-child relationship.

Objective: The objective of this study was to investigate associations between prenatal anxiety and the mother's emotional states during breastfeeding to discuss about the influence of women's mental health during pregnancy on the breastfeeding.

Method: It is a retrospective cohort study conducted with a sample of 31 pregnant women with non-twin pregnancies and term babies attended during their puerperium period in the Breastfeeding Room (BRoom) of Maternity School Hospital of Universidade Federal do Rio de Janeiro, where their emotional state was observed during breastfeeding classified in tense and relaxed. During their pregnancy, they were evaluated using the Beck Anxiety Inventory, and sociodemographic data were collected using a General Data Protocol.

Results: No significant associations were found between anxiety scores and the women's emotional state during breastfeeding. Only two mothers showed to be tense at the BRoom visitation.

Conclusion: Our findings suggest that the BRoom can be considered as a good resource to promote the breastfeeding, supporting the woman to be more confident to breastfeed and preventing negative outcomes for the mother-baby bonding.

Keywords: Anxiety; Pregnancy; Breastfeeding

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Introduction

According to the World Health Organization (WHO), breastfeeding is an ideal feeding for newborns because it provides important nutrients for their health, growth and development. The WHO recommends an exclusive breastfeeding until the first six months of baby's life, and nonexclusive breastfeeding until two years or later [1]. Studies reported that breastfeeding reduces obesity, diabetes and risks of infection diseases, and provides great advantages for neurological, physical and cognitive child's development [2-4]. Its benefits are not only for the babies, but also for the mothers, because it reduces postpartum bleeding and risks for ovarian and breast cancer [5].

Literature has discussed the effect of many factors on the breastfeeding. It is a multifactorial phenomenon that encompasses social, cultural, emotional and biological issues [6]. The women's attitudes and believes about the breastfeeding and their ability to breastfeed, as well as their emotional condition during pregnancy, including factors such as depression, self-esteem and life history, have been considered [7]. Therefore, breastfeeding cannot be considered a human innate capacity, but as a phenomenon influenced by many factors, such as the women believes, their family history, physical and emotional conditions.

Two essentials hormones are necessary for this process, prolactin and oxytocin. Both can be inhibited in adverse conditions, because their input comes from hypothalamic, which is responsible for the regulation of certain metabolic processes and also responsible for the emotional control [8]. In this way, maternal anxiety symptoms and others negative emotional states can affect the breastfeeding.

During pregnancy, a period of great psychic, hormonal, psychological and social changes, the

women are more vulnerable to mental health problems, such as anxiety [9]. There are 1 in 3 to 1 in 5 women in developing countries, and 1 in 10 in developed countries who show significant mental health problem during pregnancy and postpartum periods [10]. An international study estimated a prevalence of 49% of women with anxiety symptoms in Pakistan [11]. In Brazil, the prevalence of anxiety during pregnancy was 26.8%, and it used to be more frequent in the third gestational trimester (42.9%) [12]. However, the anxiety prevalence can be higher. In a study in Rio de Janeiro, Brazil (the city of our study) the prevalence of prenatal anxiety was 64.9% [13].

Considering the benefits of breastfeeding for maternal physical and mental health and baby's health and development, the Maternity School Hospital of Universidade Federal do Rio de Janeiro (ME-UFRJ), where this study was conducted, offers a room to support women´s breastfeeding: The Breastfeeding Room (BRoom). It is an institutional resource based on the Baby-friendly Hospital Initiative, a Brazilian policy to guarantee the protection, promotion and supporting of breastfeeding [14]. According to this, the BRoom is part of maternity facilities to support and monitor every patient to continue the breastfeeding properly. The breastfeeding progress of each patient is evaluated based on an individual assessment of maternal physical and psychological (emotional state) conditions during their breastfeeding and their strategies to cope with the difficulties of this process. The woman is monitored during the visit at BRoom, and individual interventions are offered to support her breastfeeding process. In order to guarantee the quality of breastfeeding, information about benefits, management and difficulties to breastfeed are offered to help every woman to deal with breastfeeding problems, always promoting their mental health and the mother-baby attachment during puerperium period.

Considering that prenatal anxiety can be related to the emotional state during the breastfeeding at the puerperium, the objective of this study was to investigate associations between prenatal anxiety and the mothers emotional states during breastfeeding to discuss about the influence of women's mental health during pregnancy on the breastfeeding of women who were attended at the BRoom of ME-UFRJ to highlight the importance of screening strategies to identify at-risk groups of women and resources to support and promote the breastfeeding.

Method

Study design and population

The study followed the guidelines of Ethical Committee for Research with Human Beings of National Health Council, and it was approved by the Ethical Committee of the Maternity school hospital of Universidade Federal do Rio de Janeiro (ME-UFRJ). The ME-UFRJ is a tertiary maternity hospital that attends patient on demand, where the study was conducted based on a basis of data collected from January 2014 to December 2016.

It was a retrospective cohort study conducted with a sample of 31 pregnant women with non-twin pregnancies and term babies. All participants were attended in the Breastfeeding room (BRoom) of ME-UFRJ at the puerperium period, and evaluated by the psychology team of LEPIDS, Laboratory of Study, Research and Intervention on Health and Development, of ME-UFRJ during their pregnancy.

Data collection

All participants signed the Free and Informed Consent Form approved by the Research Ethics Committee of ME-UFRJ before the psychological evaluation during their waiting for medical appointments at prenatal care service. During their pregnancy, they were evaluated using a Brazilian version of the Beck Anxiety Inventory (BAI), to identify anxiety symptoms [15]. According to other studies using the BAI with pregnant women, a cutoff point ≥ 12 was used to identify clinical anxiety and classify anxious mothers [6]. Also, a General Data Protocol was used to identify socio-demographic (age, educational level, marital status, relationship time, and working status) data.

All participants were attended during their puerperium period in the BRoom of ME-UFRJ, when they were assessed by nursing team of ME-UFRJ to identify their emotional state during breastfeeding, classified in tense and relaxed. Also, clinical obstetric history (parity, type of delivery, and previously abortion) and the family support and personal previous information about breastfeeding were collected from the data basis of BRoom of ME-UFRJ.

Statistical analyses

All data were processed and analyzed using the SPSS (Statistical Package for Social Sciences) version 19.0 (SPSS Inc., Chicago, IL, USA). Descriptive analysis (mean, standard deviation and percentages) were performed for socio-demographic, clinical obstetric, and breastfeeding progress data. Differences between groups (with and without symptoms of clinical anxiety) were evaluated using the Mann-Whitney Test. Also, associations among prenatal anxiety and mother emotional state during breastfeeding were investigated using the Wilcoxon, adopting $p \leq 0.05$ as significance level.

Discussion

This study investigated the influence of women's mental health during pregnancy on the breastfeeding of women who were attended at the Breastfeeding room of Maternity School Hospital of Universidade Federal do Rio de Janeiro (ME-UFRJ) based on the analysis of associations between prenatal anxiety symptoms and the mother´s emotional state during breastfeeding to discuss and highlight the importance of screening strategies to identify at-risk groups of women to support and promote the breastfeeding. Results are partially in line with previous studies addressing the relation between maternal anxiety symptoms and the breastfeeding progress [16,17,18]. More precisely, our findings showed that women with clinical anxiety symptoms during their pregnancy also showed tense at the puerperium during breastfeeding. Although no statistical differences between groups (with and without symptoms of clinical anxiety) were found, the mean of BAI score of relaxed mothers (M=9.78; SD=9.59) was less than the tensioned mothers (M=14.67; SD=5.13).

However most of mothers remain relaxed on the breastfeeding process, even women who shown clinical anxiety during pregnancy. This suggests that the breastfeeding can be related to contextual factors more than to individual factors for those samples. In fact, authors affirm that breastfeeding is a multifactorial phenomenon that involves many social, cultural, emotional and biological factors [6]. Obviously, the breastfeeding is related to individual aspects, like women's attitudes, believes about the breastfeeding, and sense of competence to breastfeed [7]. According to the literature the breastfeeding progress can be related to the woman´s emotional state at the puerperium because the regulation of metabolic processes responsible for the emotional control can affect the lactation [5,7,8].

Breastfeeding cannot be considered as a human innate capacity [6].

Table 1: Socio-demographic data of participants (N=31).

Socio-demographic data	Range	M ± SD
Education level	%	
Elementary school	19.35	
High school	71	
Higher education	9.65	
Marital status	%	
Married	64.5	
Single	35.5	
Relationship time (years)	1-16	6.60 ± 5.18
Working status	%	
Unemployed	33.4	
Paid job/self-employed	66.6	

M: Mean; SD: Standard Deviation

Table 2: Clinical obstetric history and breastfeeding process of participants (N=31).

Obstetric history	Range
Parity	**%**
Primiparous	45
Non-primiparous	55
Type of delivery	**%**
Normal delivery	27.6
Cesarean section	72.4
Previous abortion	**%**
YES	31.5
NO	68.5
Breastfeeding process	
Previous information	%
YES	77.4
NO	22.6
Emotional state at breastfeeding	%
Relaxed	90.3
Tense	9.7
Family support	%
YES	80.6
NO	19.4

M: Mean; SD: Standard Deviation

Unlike this, it is as a complex phenomenon influenced by individual (women believe and their physical and emotional conditions) and contextual (their family history, social pressures etc.) factors. So, the marital status and social and economic support of participants can have been a major influence on their emotional state to breastfeed. The majority of sample reported being married (64.5%), and in a paid job or self-employment (66.6%), that may have supported them to deal with the financial concerns related to puerperium demands, and to cope with breastfeeding difficulties. Important to consider that, different from the USA, in Brazil there is a public policy to guarantee for the working mothers have a paid leave during the four to six baby months of life. Certainly, it improves breastfeeding duration, reduce disparities, and support them in the decision making regarding to breastfeed.

Additionally, individual factors can be also related to the breastfeeding progress. According to Jager et al. [5], the breastfeeding is related to the woman's life history that can influence her emotional state and believes about breastfeeding abilities. More than half of our samples have not a previous abortion that also can contribute to low levels of anxiety during pregnancy. In the other hand, those low prenatal anxieties can be related to the social and economic support of those women during their pregnancy, with consequences to the breastfeeding progress. Most of them (80.6%) declared familiar support to help them to breastfeed their babies. This familiar support can be influenced the maternal emotional state during their visiting at the BRoom of ME-UFRJ, where the most part of those mothers (90.3%) showed relaxed. Datta et al. [19] highlight the importance of father supporting for the breastfeeding process. For those authors, the participation of man was an important resource to encourage mother to continue the breastfeeding when she decided for it. Family members can influence a woman´s decision to breastfeed, especially in cases of exclusive breastfeeding when the family support is even more necessary [20,21]. This reaffirm how important is the participation of father and whole family for the breastfeeding progress, because they can improve the maternal self-efficacy to breastfeed [22]. Regarding this, another aspect that improves the maternal emotional condition during the breastfeeding is the women´s self-esteem, that according to Jager et al. [5] are very important to help women to deal with psychological demands of this moment.

Furthermore, information of breastfeeding during pregnancy can help the women to manage this process and prevent an early and abrupt weaning by women. The moment immediately after the child birth is very critical for the women, because a lot of demands related to the newborn care. Even though for the multiparous women, the beginning of breastfeeding is a crucial moment. All those individual and contextual factors must be considered on the planning of measures for preventing the early weaning. For this, it is important to identify at-risk groups of women who need more health attention and support for the breastfeeding. According to O'Brien et al. [23] psychological factors, such as anxiety, are related to the duration of breastfeeding. So, it is necessary to identify women at risk for mental disorders during and after pregnancy in order to offer a preventive approach for this group. Other psychological disorders, like depression, have impact on the maternal mental health during pregnancy, and affect the women´s emotional condition to breastfeed [7].

Some studies suggest that the monitoring women at puerperium period, evaluating her mental conditions and providing information to support the mother and her family can improve the length of breastfeeding [24,25]. The Breastfeeding Room (Broom) of ME-UFRJ is an example of this. It is very important for the improvement of breastfeeding, and the promoting of positive outcomes for the child and mother [2-5]. Unfortunately, due methodological limitations we did not collected mothers´ perceptions about the intervention offered at the BRoom of ME-UFRJ, but we can affirm that this institutional resource agrees with the Baby-friendly Hospital Initiative, providing protection, and promoting and supporting the breastfeeding for Brazilian population [14]. Even though most mothers have previous information about the breastfeeding, the BRoom of ME-UFRJ can improve the quality of their breastfeeding because it offers specific information about the benefits of breastfeeding, and also strategies for women manage the difficulties to breastfeed. Consequently, the BRoom helped mothers to cope with breastfeeding problems, and

promote a woman´s mental health and her affective attachment with the baby during puerperium period.

Overall, this investigation provides data to discuss about the influence of women's mental health during pregnancy on the breastfeeding, highlighting the necessity of screening strategies to identify at-risk groups of women, and the importance of structured and specific resources to support and promote the breastfeeding. Risks factors for the maternal mental health, both individual and contextual may affect the breastfeeding progress, especially at the first months of the baby's life. Nevertheless, some limitations of the study must be considered. First, our sample was small and may have not had enough power to test statistical associations among variables studied. In addition, we did not have a postnatal anxiety measure that could explain the mother´s emotional state during the BRoom visit. Longitudinal measures of maternal mental health, and child development to confirm the benefits of breastfeeding could be included. We highlight the necessity of additional research to discuss the relationship between breastfeeding and maternal mental health, including others measures like stress, to provide evidence-based strategies that reduce the risk of psychological disorders in the prenatal period and its negative outcomes for the breastfeeding.

Results

Socio-demographic data are summarized on the Table 1. The age of mothers ranged from 14 to 42 years (M=29.39; SD=7.09). The majority of samples had high school level (71%), and was in paid job or self-employment (66.6%). The time of relationship ranged from 1 to 16 years.

Data of clinical obstetric history and the breastfeeding process are summarized on the Table 2. More than half of participants were not on their first pregnancy (55%). Most of them was submitted a cesarean section (72.4%), with none history of abortion (68.5%). Related to the breastfeeding process, 77.2% of women had previous information about breastfeeding, and the high majority of sample was relaxing when they were breastfeeding. Family support was declared by 80.6%.

Considering the cutoff point of ≥ 12 on the BAI, 12 women showed clinical anxiety symptoms during their pregnancy. The mean of BAI score of relaxed mothers was M=9.78 (SD=9.59); less than tensioned mothers, that the BAI score was M=14.67 (SD=5.13). However, no statistical differences between groups (with and without symptoms of clinical anxiety) were found.

Prenatal anxiety symptoms were analyzed related to the emotional state during breastfeeding, comparing groups of participants with and without clinical anxiety. Among anxious mothers, only 9.70% (n=02) reported feeling tension during breastfeeding, and 90.3% (n=29) relax. Significant statistical differences between those groups were not found testing associations among prenatal anxiety and mother emotional state at the breastfeeding. Among those two mothers remained tense, both were married, primiparous and had a paid job of were self-employed.

Conclusion

The breastfeeding process is more than a biological phenomenon because involve several factors. The breastfeeding's effectiveness begins with the woman´s sense of self efficacy and the belief that the breastfeeding is not an innate human capacity. There are important aspects related to the follow-up and duration of breastfeeding, since the psychophysiology of lactation that involves a neurohormonal condition, until contextual factors related to the familiar support. All of them can influence the physiological process of lactation, increasing or decreasing the impact of environmental and individual factors on the breastfeeding progress. The effective support to breastfeeding, like the BRoom, can be very important resource to attend any women at the puerperium, especially the at-risk groups, like the mothers with psychological disorders or without familiar or financial support. It provides the necessary help for the woman feel comfortable to tell about her fears, and clarify her doubts, because they have an opportunity to receive help and information about the breastfeeding moment, mainly at the first month of baby´s life. Finally, the BRoom or others measures to promote breastfeeding can support every woman to feel more confident to breastfeed her child, with special attention to at risk psycho-social groups where the women are more vulnerable to negative outcomes for breastfeeding and the mother-baby bond.

References

1. World Health Organization (WHO). Geneva: Exclusive breastfeeding for Six Months Best for Babies Everywhere. c2011.
2. Dias CC, Figueiredo B. Breastfeeding and depression: a systematic review of the literature. J Affect Disord. 2015;171:142-54.
3. Loret de Mola C, Horta BL, Gonçalves H, Quevedo Lde A, Pinheiro R, Gigante DP, et al. Breastfeeding and mental health in adulthood: A birth cohort study in Brazil. J Affect Disord. 2016;202:115-9.
4. Krol KM, Rajhans P, Missana M, Grossmann T. Duration of exclusive breastfeeding is associated with differences in infants' brain responses to emotional body expressions. Front Behav Neurosci. 2015;8:459.
5. de Jager E, Broadbent J, Fuller-Tyszkiewicz M, Skouteris H. The role of psychosocial factors in exclusive breastfeeding to six months postpartum. Midwifery. 2014;30(6):657-66.
6. Scott JA, Binns CW, Graham KI, Oddy WH. Temporal changes in the determinants of breastfeeding initiation. Birth. 2006;33(1):37-45.
7. Insaf TZ, Fortner RT, Pekow P, Dole N, Markenson G, Chasan-Taber L. Prenatal stress, anxiety, and depressive symptoms as predictors of intention to breastfeed among Hispanic women. J Womens Health (Larchmt). 2011;20(8):1183-92.
8. Jonas W, Nissen E, Ransjö-Arvidson AB, Matthiesen AS, Uvnäs-Moberg K. Influence of oxytocin or epidural analgesia on personality profile in breastfeeding women: a comparative study. Arch Women's Ment Health. 2008;11(5-6):335-45.
9. Grant KA, McMahon C, Austin MP. Maternal anxiety during the transition to parenthood: a prospective study. J Affect Disord. 2008;108(1-2):101-11.
10. World Health Organization (WHO). Geneva: Millennium Development Goal 5–improving maternal health. c2015.
11. Waqas A, Raza N, Lodhi HW, Muhammad Z, Jamal M, Rehman A. Psychosocial factors of antenatal anxiety and depression in Pakistan: is social support a mediator? PLoS One. 2015;10(1):4-14.
12. Silva MMJ, Nogueira DA, Clapis MJ, Leite EPRC. Anxiety in pregnancy: prevalence and associated factors. Rev Esc Enferm USP. 2017;51:1-8.
13. Araújo DMR, Pacheco AHDR, Pimenta AM, Kac G. Prevalence of anxiety symptoms and associated factors in a cohort of pregnant women attending a health care center in the municipality of Rio de Janeiro. Rev. Bras. Saúde Matern. Infant. 2008;8:333-40.
14. United Nations Children's Fund (UNICEF) and the World Health organization (WHO). Country experiences with the Baby-friendly Hospital Initiative, Compendium of case studies of the Baby-friendly Hospital Initiative. c2017.

15. Adedinsewo DA, Fleming AS, Steiner M, Meaney MJ, Girard AW. Maternal anxiety and breastfeeding: findings from the MAVAN (Maternal Adversity, Vulnerability and Neurodevelopment) Study. J Hum Lact. 2014;30(1):102-9.

16. Wagner EA, Chantry CJ, Dewey KG, Nommsen-Rivers LA. Breastfeeding concerns at 3 and 7 days postpartum and feeding status at 2 months. Pediatrics. 2013;132(4):e865-75.

17. Meedya S, Fahy K, Kable A. Factors that positively influence breastfeeding duration to 6 months: a literature review. Women Birth. 2010;23(4):135-45.

18. deMontigny F, Gervais C, Larivière-Bastien D, St-Arneault K. The role of fathers during breastfeeding. Midwifery. 2018;58:6-12.

19. Datta J, Graham B, Wellings K. The role of fathers in breastfeeding: decision making and support. Br J Midwifery. 2012;20(3):159-67.

20. Mueffelmann RE, Racine EF, Warren-Findlow J, Coffman MJ. Perceived Infant Feeding Preferences of Significant Family Members and Mothers' Intentions to Exclusively Breastfeed. J Hum Lact. 2015;31(3):479-89.

21. Sari YP, Yosi S, Nella V. The exclusive breastfeeding experiences of working mothers in West Sumatera (Sumbar) Peduli ASI community. Int J Res Med Sci. 2015;3(10):2599-604.

22. Wijayantia K, Indrayanab T, Kuswantoc. Mother's knowledge and level of family support toward exclusive breastfeeding practice. IJSBAR. 2016;29(1):57-63.

23. O'Brien M, Buikstra E, Hegney D. The influence of psychological factors on breastfeeding duration. J Adv Nurs. 2008;63(4):397-408.

24. Bunik M, Dunn DM, Watkins L, Talmi A. Trifecta approach to breastfeeding: clinical care in the integrated mental health model. J Hum Lact. 2014;30(2):143-7.

25. Machado MC, Assis KF, Oliveira Fde C, Ribeiro AQ, Araújo RM, Cury AF, et al. Determinants of the exclusive breastfeeding abandonment: psychosocial factors. Rev Saude Publica. 2014;48(6):985-94.