Breastfeeding during COVID-19 period: a narrative review

ABSTRACT

Objective: Analyze breastfeeding during COVID-19 pandemic. Method: Narrative review of the literature that selected articles in the USA National Library of Medicine (PubMed) database, in the regional portal of the Virtual Health Library (VHL) and in the electronic library Scientific Electronic Library Online (Scielo) using the descriptors “Breastfeeding”, “Coronavirus” and “Coronavirus Infections”, and between the terms the Boolean operator AND. At PubMed, the descriptors were “Breastfeeding”, “Coronavirus” and “Coronavirus Infections”, according to the Medical Subject Headings (MeSH). Articles in Portuguese and published between 2019-2021 were included. Results: 129 articles were selected, 125 were excluded and three were analyzed. Conclusion: There is still a shortage of studies addressing the theme mainly in Portuguese. However, to date, current recommendations encourage breastfeeding by breastfeeding mothers who are suspected or positive for COVID-19, but with correct biosafety measures due to the benefits of breastfeeding.

Keywords: Breastfeeding; Coronavirus; Coronavirus infections.

INTRODUCTION

In December 2019, in the city of Wuhan in China, a new coronavirus 2 was identified, causing Severe Acute Respiratory Syndrome (SARS-CoV-2) and the disease generated by the new virus was called COVID-19. It spread quickly across Chinese territory, and in February 2020 it was detected in several countries, subsequently reaching all continents which culminated in the statement by the World Health Organization (WHO) characterizing COVID-19 as a pandemic, “public health emergency of international importance” and a global problem.
At the beginning of the pandemic, the population most affected was those over 60 years of age (1) however, with the rapid dissemination of COVID-19 all age groups, social and economic conditions were reached, including women in the pregnancy-puerperal cycle, however the repercussions of both maternal and perinatal COVID-19 are still poorly evidenced in the literature in relation to the COVID-19 behavior in the organisms of the mother/fetus binomial, as well as during the breastfeeding period. (5)

SARS-CoV-2 is transmitted directly through close contact with people, mainly through respiratory droplets or indirectly, through contact with surfaces or objects used by the infected person. It is known the importance of contact between mother and child in the first minutes after birth, even with the beginning of breastfeeding, but some countries, in suspected or confirmed cases of puerperal women with COVID-19, there is the separation of the mother and newborn, even with the WHO recommendation of maintaining contact and breastfeeding during this period. (7) This separation could even impact the reduction or absence of breast milk supply.

In the literature, we have limited information about the transmission of the new coronavirus through breastfeeding and the data are constantly updated, but it is considered that mother-child transmission is more likely through direct contact, by the elimination of droplets from the mother to the child by close contact during breastfeeding. (8) It is necessary that nursing mothers with symptoms of COVID-19 or with a positive diagnosis for the disease maintain some essential care during breastfeeding, such as assiduous hand hygiene and the use of a face mask. (9)

The interruptions in essential health services during COVID-19 seriously affected the quality of care provided to pregnant women during the prenatal period and this also affects the health of their children. It is understood that the quality of prenatal care directly influences maternal and child health and should not be limited to consultations and exams, as it aims at comprehensive care. (10) The guidelines in this period on health care are seen as a differential that contributes to a humanized and comprehensive care. (11)

Carrying out health actions that address the care of pregnant women and newborns, in addition to encouraging breastfeeding, are essential, as we know that many pregnant women experience this period with a lack of information. However, with the recommendation of social isolation, operative groups were also suspended, which may have an impact on breastfeeding. (12)

Breastfeeding is considered an ancient practice that has several immunological, cognitive, socio economic and nutritional benefits for the mother/newborn binomial. (13,14,15) It should be started right after birth because in addition to the rich nutritional composition of breast milk, there are still other components with immunoprotective properties that promote and help to reduce the chances of infection of the newborn and also help the newborn against possible aggressions from the environment, in addition it has hormones and peptides that promote growth. (16,17,18) In this way, breastfeeding, in addition to providing the newborn with all the nutritional support for its growth and development, can also be considered as a protective factor against COVID-19, due to its immunological components, thus highlighting the importance of breastfeeding during the new coronavirus pandemic.

In view of the pandemic scenario in which we find ourselves and due to the increase in new research related to the topic of breastfeeding by breastfeeding women affected by COVID-19 or with suspicion of the disease, there is a question about the maintenance of breastfeeding due to the need to adopt some safety measures for the prevention and control of neonatal infection. However, in recent research with nursing mothers, the new coronavirus has not yet been detected in breast milk, however specific antibodies against it have already been identified in milk samples from mothers tested positive for the disease. (19,20)

In this perspective, considering the need for access to knowledge based on scientific evidence that can guide safe breastfeeding practices during the COVID-19 pandemic, the relevance of this study is observed, which aims to conduct a narrative literature review in order to analyze breastfeeding in times of COVID-19 pandemic.

**METHOD**

This is a study of narrative review of the literature. This type of research aims to describe and discuss the development of a given subject from a theoretical point of view.

They consist of an analysis of the literature published in the various means of scientific dissemination, interpretation and personal critical analysis of the author. This study has a fundamental role in the scientific field, as it allows the reader to update himself in knowledge about the studied theme. (21)

As a guiding question of the study, he defined: How is breastfeeding during the pandemic of COVID-19? To select the articles that addressed the theme, systematic searches were carried out in the database of the USA National Library of Medicine (Pubmed), in the regional portal of the Virtual Health Library (VHL) and in the electronic library Scientific Electronic Library Online (Scielo). The search terms were “Aleitamento Materno”, “Coronavirus” and “Infeções por Coronavirus”, all extracted from the Health Sciences Descriptors (DECS), and between the terms the Boolean operator AND. For Pubmed searches, the descriptors were “Breastfeeding”, “Coronavirus” and “Coronavirus Infections”, according to the Medical Subject Headings (MeSH), carried out during the month of March 2021.

As for the inclusion criteria, articles

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were selected that addressed the theme with an emphasis on breastfeeding and COVID-19, considering the Portuguese language and works published in the last two years, between 2019 and 2021. Literature reviews, systematic reviews, documents/ recommendations from entities, bodies or institutions and studies that did not address the proposed theme.

The initial literature search resulted in a sample of 129 publications. After this stage, there was a thorough reading of the titles and abstracts of the studies. According to the eligibility criteria, three articles were pre-selected. Subsequently, the articles were read in full, and the three were included for satisfactorily responding to the guiding question, and therefore made up the final set of analysis for this review. The flowchart detailing the steps for selecting publications is shown below, in Figure 1.

With regard to ethical aspects, since it is a narrative review of the literature and the secondary information is extracted from scientific articles, already published in databases and virtual libraries, authorization for the use of the data was not necessary and neither was the Research Ethics Committee, according to National Resolution 466/2012.

RESULTS

A total of 129 studies were found in the databases, 126 of which were excluded for not meeting the inclusion criteria, resulting in three articles selected for the study. Chart 1 shows the studies included in the research according to title, authors, year of publication, type of study and objective of the research.

DISCUSSION

The infection caused by COVID-19 raised several concerns for the general population, especially for those at higher risk, such as pregnant women, nursing mothers and newborns. Due to the recent discovery of the virus, doubts related to breastfeeding and the risk of spreading the disease to the newborn have arisen, therefore, studies on the theme are needed.

The research found in this review was included due to its importance in the current context experienced, aiming to analyze breastfeeding inserted in the COVID-19 pandemic times, through different contexts, such as the approach related to the maintenance of breastfeeding, interventions regarding continuity and the new adaptations of the human milk bank. 

Breastfeeding, COVID-19 and its recommendations

Dantas et al. 2020 reported results in relation to the recommendations on breastfeeding and COVID-19 and the

### Figure 1- Flowchart of the selection process for the studies included in the review.

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### Chart 1- Information regarding the title, authorship, year of publication and objective of the studies that were selected to participate in the research.

| Source: The authors |
practice of breastfeeding in the current scenario. (24)

According to WHO guidelines, the benefits of continuing breastfeeding in times of COVID-19 are greater than the risks, therefore breastfeeding is recommended, provided that women who wish to breastfeed perform respiratory hygiene, hand washing before and after touching the newborn, and the disinfection of the environment whenever there is contact. (27)

The Ministry of Health also recommends that the use of a mask during breastfeeding is mandatory and used in all feedings, requiring replacement in cases of coughing or sneezing, in the case of using mechanical milking, after using the machine, it is necessary cleaning it and after removing the milk, if necessary, consider the help of someone who is not contaminated to offer the cup or spoon of the expressed milk. (28)

For breastfeeding mothers who do not feel comfortable and do not wish to breastfeed during the infection by COVID-19, it is recommended that they perform milk expression or relactation, aiming at maintaining the supply of breast milk after the new virus is reestablished. (27)

Recently researchers analyzed samples of breast milk, amniotic fluid, neonatal swab at birth and umbilical cord blood, finding negative results in all samples for SARS-CoV-2, suggesting that there was no vertical transmission of COVID-19 during the late phase of pregnancy. (29)

As it is a recently discovered virus, it is common for doubts, fear and concern to arise in relation to breastfeeding and the risks for nursing mothers and newborns. (30) Corroborating these findings, Lima et al, showed feelings of insecurity, fear and anxiety experienced by infants when approached on the subject. (25)

As an intervention, the authors of the aforementioned study carry out breastfeeding consultations through social media, since detachment is one of the precautionary measures for the pandemic. These lives were important for maintaining breastfeeding, being considered an aggregating device in women’s health care. (25)

To avoid the spread of the virus and favor breastfeeding, adjustments were necessary by the nursing team in order to minimize the risk of contagion by COVID-19 of nursing mothers, newborns, family members and health professionals. (31) In relation to the changes and adaptations that were made in this period, some included the promotion of social distance, through the home collection of human milk donations, the intensification of care by telephone and the use of social media to promote knowledge about the breastfeeding. (26)

As a recommendation, the Ministry of Health (MH) contraindicates the donation of milk by women who are positive for COVID-19, or who are showing any flu-like symptoms. Despite the recommendation of the MoH, it is still essential that the donation be continued after the end of the infectious period, and that the professionals who work in the human milk bank make the necessary adaptations for the continuity of the assistance. (31)

CONCLUSION

In the context of the serious pandemic of COVID-19, which has been perpetuating for more than a year with a large number of people affected by the virus, especially here in Brazil, there is still a scarcity of studies addressing the theme, mainly in Portuguese and, therefore, the need for continuation of investigations on the subject and constant updates.

However, to date, the current recommendations encourage breastfeeding by breastfeeding mothers suspected or positive for COVID-19 provided that the correct biosafety measures are adopted, as the benefits of breastfeeding outweigh the possible risks of contamination of the newborn.

References


**As a way of providing breastfeeding safely, human milk donation is also an important alternative.**

**New adaptations of the human milk bank**

As a way of providing breastfeeding safely, human milk donation is also an important alternative. (27) In this context, Marchiori et al, addressed the nursing actions in front of the human milk bank considering the current scenario and how their actions were directly affected by the pandemic. (26)
References


