

Breastfeeding promotion during the COVID-19 pandemic in northeastern Brazil

Brena Melo, MD, PhD

Coordinator Dr Luiz Carlos Santos High Risk Pregnancy Ward, Centro de Atenção à Mulher (CAM), Instituto de Medicina Integral Prof. Fernando Figueira (IMIP); Coordinator of the Simulation Center (CSim), Faculdade Pernambucana de Saúde (FPS); Recife, Brazil. email: brena.melo@imip.org.br ORCID: <https://orcid.org/0000-0002-7671-2122>

Glaucia Guerra, MD, PhD

General Coordinator Centro de Atenção à Mulher (CAM), Instituto de Medicina Integral Prof. Fernando Figueira (IMIP); Recife, Brazil. email: glaucia.guerra@imip.org.br ORCID: <https://orcid.org/0000-0001-6110-678X>

Judith Correa, MD

Assistant Coordinator Centro de Atenção à Mulher (CAM), Instituto de Medicina Integral Prof. Fernando Figueira (IMIP); Recife, Brazil. email: judith.rego@imip.org.br ORCID: <https://orcid.org/0000-0002-7234-2590>

Dafne Barcala, MD, PhD candidate

Neonatologist. Neonatal Intensive Care Unit, Centro de Atenção à Mulher (CAM), Instituto de Medicina Integral Prof. Fernando Figueira (IMIP); Recife, Brazil. email: dafnebarcala@hotmail.com ORCID: <https://orcid.org/0000-0002-5271-8538>

Leila Katz, MD, PhD

Coordinator Obstetrics Intensive Care Unit, Centro de Atenção à Mulher (CAM), Instituto de Medicina Integral Prof. Fernando Figueira (IMIP); Recife, Brazil. email: katz.leila@gmail.com ORCID: <https://orcid.org/0000-0001-9854-7917>

Vilneide Maria Santos Braga Diégues Serva, MD, MsC

Pediatrician. Coordinator Human Milk Bank, Instituto de Medicina Integral Prof. Fernando Figueira (IMIP); Recife, Brazil. email: vilneidebs@hotmail.com ORCID: <https://orcid.org/0000-0001-6190-4597>

All authors report that they have no conflict of interest.

Abstract

Early COVID-19 delivery room reports routinely described maternal and neonatal physical distancing, in both confirmed or suspected cases. Immediately, breastfeeding experts expressed their concern for the potential catastrophic consequences of such separation, with great potential for breastfeeding discontinuity, particularly in low- and middle-income countries. In this manuscript, we report a positive experience of early breastfeeding promotion and maintenance in labour and delivery room, from the time of the first cases of COVID-19, confirmed or suspected, at a Baby Friendly Hospital Initiative (BFHI) and tertiary teaching hospital in Recife, in the northeastern region of Brazil.

Key words: COVID-19, breastfeeding, delivery, delivery rooms, postpartum period

Breastfeeding practices in labour and delivery rooms were often severely compromised during COVID-19 pandemic. Early COVID-19 delivery room guidelines and reports recommended maternal and neonatal separation immediately after birth, with suspension of breastfeeding, in suspected or confirmed cases (Wang et al., 2020; Sigaldehy & Kalan, 2020; Lee et al., 2020). These recommendations were based on a theoretical concern for neonatal viral contamination with the SARS-CoV-2 virus from their close maternal-infant contact during breastfeeding (Chen et al., 2020). Many experts, however, pondered on the potentially catastrophic consequences for mothers and babies if breastfeeding in the delivery room was to be abolished at such an early stage of life. The emergence of the COVID-19 pandemic and the lack of knowledge about the disease generated many uncertainties and a major concern was how to continue breastfeeding promotion practices, such as skin-to-skin contact during the first hour of life. In this manuscript, we report a positive experience of breastfeeding promotion and maintenance in labour and delivery rooms from the first suspected or confirmed case of COVID-19 in a maternal and child hospital.

The Instituto de Medicina Integral Prof. Fernando Figueira (IMIP) is a tertiary reference teaching hospital in Recife, Brazil, located in the impoverished Northeast Region of Brazil. It was a pioneer in promoting breastfeeding in the country and in 1992 was the first Brazilian hospital to be granted with the title of Baby-Friendly Hospital. IMIP's Human Milk Bank has been in operation since 1987, providing guidance and assistance on breastfeeding, receiving breast milk donations, pasteurizing it, implementing quality control, and forwarding it to premature newborns and paediatric patients admitted to its neonatal and paediatric unit (Lamounier et al., 2019).

On March 23rd 2020, IMIP was designated by the local government as the sole reference unit for the assistance of pregnant and postpartum women with suspected or confirmed COVID-19 infection in Pernambuco, a Brazilian state with a 10 million population (Folha de Pernambuco, 2020). Up to September 2021, IMIP assisted 2,540 pregnant or postpartum women with suspected COVID-19, with 788 (31%) of these women receiving a confirmed a positive RT-PCR.

The IMIP Maternal and Child healthcare team's main concern with regards to breastfeeding practices if the COVID-19 guidelines then available were promptly adopted consisted of: "If these postpartum women do not breastfeed, who will take care of their child?" The most likely answer was: "Some relative (if any) asymptomatic for

COVID-19.” Therefore, the neonate would still be at risk of contamination with the SARS-CoV-2 virus.

In addition, all the nutritional, affective, and immunological benefits of breastfeeding would be lost or delayed. Sound evidence has long demonstrated that exclusive breastfeeding on hospital discharge is one of the most important steps towards six months exclusive breastfeeding and maintenance of breastfeeding up to two years or more (WHO, 2009; Victora et al., 2015, Victora et al., 2016). Also, early skin-to skin contact in the delivery room is a step of utmost relevance toward exclusive breastfeeding promotion, notwithstanding its additional maternal benefits such as postpartum haemorrhage prevention (WHO, 2012; Saxton et al., 2015). Therefore, the adoption of maternal and child separation at the delivery room had the potential to significantly promote an unfortunate cascade of events (McFadden et al., 2017; Victora et al., 2017).

Thus the IMIP Maternal and Child healthcare team, through discussion between obstetricians, neonatologists, obstetrics nurses with the agreement of the hospital infectious disease team developed a protocol avoiding maternal infant separation with COVID-19 suspected or confirmed cases among pregnant or postpartum women. This was published already in March 2020 and included a series of recommendations for the promotion of breastfeeding during COVID-19 pandemic. These sets of recommendations were to be put into practice in the delivery room and continued in the postpartum ward until hospital discharge (IMIP, 2020).

First, the protocol aimed at promoting early skin-to-skin contact during the first hour of life in the delivery room. Subsequently, whenever clinically feasible and in accordance with the mother’s wishes, maternal and neonatal contact in the first hour of life was promoted either after vaginal delivery or caesarean section. Then, the labour assistance team would clean the mother immediately after delivery with water and soap for any maternal secretions. In addition, all clothes and masks were changed immediately after delivery at the delivery room before maternal and neonatal reunion.

At the postpartum ward, respecting the recommended distance between mothers in the wards and required hygienic sanitary measures, postpartum women received support from the healthcare team to continue breastfeeding. Most postpartum suspected or COVID-19 positive women expressed a desire to breastfeed and to take care of their own child. The mother and child were separated only in the case of clinical impediments such as maternal or neonatal admission to the intensive care unit. In these cases, unfortunately, as a downside of the COVID-19 pandemic, breastfeeding practices were significantly compromised.

With the adoption of such steps toward the promotion of breastfeeding most neonates born to COVID-19 infected mothers have been discharged from IMIP exclusively breastfeeding. Mothers are provided with guidance regarding any abnormality that might arise, in which case they are promptly readmitted. IMIP’s protocol for the assistance of COVID-19 suspected or confirmed cases on pregnant or postpartum women with recommendations for the promotion of breastfeeding during COVID-19 pandemic served as was the basis to support the Brazilian Ministry of Health’s COVID-19 breastfeeding recommendations (Ministério da Saúde Brasil, 2020) and is now in accordance with current recommendations worldwide (WHO, 2021; RCOG, 2021; ACOG, 2021).

References

- ACOG. (2021). COVID Pregnancy guidelines. <https://www.acog.org/womens-health/faqs/coronavirus-covid-19-pregnancy-and-breastfeeding>.
- Chen H, Guo J, Wang C, et al. (2020). Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. *Lancet*. 7;395(10226):809-815. doi: 10.1016/S0140-6736(20)30360-3.
- Folha de Pernambuco. (2020). IMIP vira referência para atender possíveis casos de coronavírus no Estado. URL: <https://www.folhape.com.br/noticias/imip-vira-referencia-para-atender-possiveis-casos-de-coronavirus-no-es/130420/>
- Instituto de Medicina Integral Prof. Fernando Figueira (IMIP). (2020). Protocolo Assistencial para Atendimento de Gestantes e Puérperas com Infecção Suspeita ou Confirmado por COVID-19 no CAM-IMIP. Versão 4. Atualizado em 15 de abril de 2020. http://www.informazione6.com.br/imip/arquivos/noticia/PROTOCOLO-COVID-19_CAM_15abr2020_13h.pdf
- Lamounier JA, Chaves RG, Rego MAS, et al. (2019). Baby friendly hospital initiative: 25 years of experience in Brazil. *Rev Paul Pediatr*. 37(4):486-493. doi: [10.1590/1984-0462/2019;37;4;00004](https://doi.org/10.1590/1984-0462/2019;37;4;00004)
- Lee EK, Kim WD, Lee DW, et al. (2020). Management of the first newborn delivered by a mother with COVID-19 in South Korea. *Clin Exp Pediatr*. 63(9):373-375. doi: 10.3345/cep.2020.00850.
- McFadden A, Gavine A, Renfrew M, et al. (2017). Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database of Systematic Reviews*. Issue 2. Art. No.: CD001141. doi: 10.1002/14651858.CD001141.pub5
- NOTA TÉCNICA No 14/2020-COCAM/CGCIVI/DAPES/SAPS/MS SEI/MS - 0016031197 - Nota Técnica Ministério Saúde do Brasil. Publicado em 05 agosto (2020). <https://portaldeboaspraticas.iff.fiocruz.br/biblioteca/nota-tecnica-no-10-2020-cocam-cgcivi-dapes-saps-ms-atencao-a-saude-do-rn/>
- Royal College of Obstetricians & Gynaecologists. (2022). Coronavirus (COVID-19) Infection in Pregnancy. <https://www.rcog.org.uk/globalassets/documents/guidelines/2022-01-11-coronavirus-covid-19-infection-in-pregnancy-v14.3.pdf>
- Saxton A, Fahy K, Rolfe M, et al. (2015). Does skin-to-skin contact and breast feeding at birth affect the rate of primary postpartum haemorrhage: Results of a cohort study. *Midwifery*. 31(11):1110-7. doi: 10.1016/j.midw.2015.07.008.
- Shirin Shahbazi Sighaldehy, Mohammad Ebrahimi Kalan. (2020). Care of newborns born to mothers with COVID-19 infection; a review of existing evidence. *The Journal of Maternal-Fetal & Neonatal Medicine*. 1-13. doi: 10.1080/14767058.2020.1777969

Sinha B, Chowdhury R, Sankar MJ, et al. (2015). Interventions to improve breastfeeding outcomes: a systematic review and meta-analysis. *Acta Paediatr.* 104(467):114-34. doi: 10.1111/apa.13127.

Tran HT, Huynh LT, Minh Le CH, et al. (2021). Early Essential Newborn Care can still be used with mothers who have COVID-19 if effective infection control measures are applied. *Acta Paediatr.* 110(7):1991–1994. doi: 10.1111/apa.15837

Victora CG, Bahl R, Barros AJ, et al. (2016). *Lancet*. Breastfeeding Series Group. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. 387(10017):475-90. doi: 10.1016/S0140-6736(15)01024-7.

Victora CG, Horta BL, Loret de Mola C, et al. (2015). Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: a prospective birth cohort study from Brazil. *Lancet Glob Health.* e199-205. doi: 10.1016/S2214-109X(15)70002-1.

Wang L, Shi Y, Xiao T, et al. (2020). Working Committee on Perinatal and Neonatal Management for the Prevention and Control of the 2019 Novel Coronavirus Infection. Chinese expert consensus on the perinatal and neonatal management for the prevention and control of the 2019 novel coronavirus infection (First edition). *Ann Transl Med* 8(3):47. doi: 10.21037/atm.2020.02.20.

WHO. (2009). *Library Cataloguing-in-Publication Data Infant and young child feeding: model chapter for textbooks for medical students and allied health professionals.* ISBN 978 92 4 159749 4 (NLM classification: WS 125)

World Health Organization. (2012). *WHO recommendations for the prevention and treatment of postpartum haemorrhage.* Italy.

WHO. (2021). COVID Pregnancy Guideline. URL: <https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-pregnancy-and-childbirth>