

Perception of Women Regarding Breast Feeding During Covid 19 Pandemic

Aliya Nasim¹, Farhan Saeed², Erum Saboohi³, Naima Shah⁴ and Madiha Batool Zaheer⁵

ABSTRACT

Objective: To assess the perception of women regarding breast feeding and lactation during Covid 19 pandemic.

Study Design: Cross-sectional descriptive study.

Place and Duration of Study: This study was conducted at the obstetrics and gynecology Department, neonatal follow-up clinics and vaccination center at Darul Sehat Hospital Karachi from September 2021 to November 2021.

Materials and Methods: A questionnaire was introduced to women after taking informed consent. Included females were either lactating currently or practicing since last six month and those with breast feeding problems were excluded from study. Questionnaire contain three portions of which first part inquired about demographic features, second part contained questions about perception and third part is about practices of breast feeding during Covid -19 pandemic. Data was analyzed using IBM-SPSS version 23.0. Means with standard deviation were given for quantitative variables and chi square test is used to assess association between perception of breast feeding and different study variables.

Results: The study included 206 participants. Mean age was 28.8 years (SD ± 5.0). 66.2% suggested breastfeeding should continue even in covid prevalent communities, 33.8% claimed that covid virus can be transmitted via breastfeeding, 57.6% said wearing a mask should be mandatory while breastfeeding and 84.3% suggested washing hands prior to breastfeeding helps prevent transmission of virus from mother to baby. 66.2% thought breastfeeding protects the child against covid disease.

Conclusion: Covid 19 pandemic has affected breastfeeding practices. Majority women suggested breastfeeding should continue even in communities where covid is pandemic, and that breastfeeding protects the child against covid disease.

Key Words: Covid 19 disease, pregnancy, lactation, breastfeeding

Citation of article: Nasim A, Saeed F, Saboohi E, Shah N, Zaheer MB. Perception of Women Regarding Breast Feeding During Covid 19 Pandemic. Med Forum 2022;33(7):55-59.

INTRODUCTION

As Covid 19 is highly contagious and rapidly emerging disease and declared pandemic by WHO on 11 March 2020 ⁽¹⁾, many concerns have been raised regarding impact of novel virus on pregnant and lactating population. Because of their unique physiological situation, this population is considered as high risk.

¹. Department of Obstet & Gynae / Pediatrics², Liaquat College of Medicine and Dentistry, Karachi.

³. Department of Pediatrics, Sir Syed College of Medical Sciences for Girls, Karachi.

⁴. Department of Obstet & Gynae / Pediatric⁵, Darul Sehat Hospital, Karachi.

Correspondence: Dr. Aliya Nasim, Associate Professor, Obstetrics & Gynaecology, Liaquat College of Medicine and Dentistry, Karachi.

Contact No: 0300 9217582

Email: aliyaakhter@yahoo.com

Received: March, 2022

Accepted: May, 2022

Printed: July, 2022

As this is new emerging situation, limited literature is available regarding breast feeding safety and transmission of infection through breast feeding showing different results and suggestions.

SARS-COV 2 can present from asymptomatic to a severe acute respiratory infection requiring intensive care ⁽²⁾. Although most of the infections occur in adults older than 60 years ⁽³⁾, some pregnant women have also been infected, causing concerns for the management of the perinatal period ⁽⁴⁾. A few studies have explored the infection of neonates with SARS-CoV-2 and none showed breastfeeding as method of the transmission of the virus. ^(5, 6, 7)

There is an ongoing debate regarding risks of intrapartum transmission of the virus or transmission through lactation. In the past few months, the SARS-CoV-2 antibodies of IgA, IgG and IgM in breast milk have also been reported ^(8,9). Because of diversity in literature different policies have been advocated by different centers worldwide. Chinese colleagues just do not consider the breast-feeding option, nor the use of expressed breast milk for newborn infants. ^(10, 11, 12) Instead, initial literature from USA, Italy, Brazil suggests to avoid direct breast feeding, as sucking at the

breast presumably might increase the risk of SARS-CoV-2 transmission via aerosol due to the intimate contact during feeds.¹³⁻¹⁵ These measures contradict World Health Organization (WHO) recommendations which stated that mothers with suspected or confirmed COVID-19 infection should be encouraged to initiate and continue breastfeeding because benefits of breastfeeding substantially outweigh the potential risks of transmission.⁽¹⁶⁾

Rationale: Whether to continue breast feeding during pandemic and can it be a source of infection to new born is a big question and because of much differences in literature and variations in clinical practices by different authorities and clinical settings women are facing much confusion regarding continuation of breast feeding during illness and pandemic.

The authors aim to find the perception of women and their knowledge regarding lactation and breast feeding during Covid 19 pandemic and their awareness of about precautions taken during breast feeding. At the same time their concerns, fear and anxiety are addressed and precautions are explained.

MATERIALS AND METHODS

This Cross sectional study was conducted in obstetrics and gynecology out & inpatient department, neonatal follow-up clinics and vaccination center at Darul Sehat Hospital Karachi for 3 months after approval from IRB LCMD from 1st September 2021 to 30th November 2021.

Sampling Technique: Non probability purposive sampling.

Sample size: It was estimated using online sample size calculator available at www.openepi.com with proportion method, version 3.01, after assuming 97% positive perceptions on breast feeding in COVID-19 pandemic, at 5% margin of error and 95% confidence interval we required at least n=206 samples for this study⁽²³⁾.

SAMPLE SELECTION:

Inclusion criteria:

The study will be conducted among lactating females coming to hospital for follow up visits in obstetric clinics, neonatal clinics and vaccination center for newborn vaccination who are lactating their infants currently or has been lactating since previous six months.

Exclusion criteria: Those females with breast problems like cracked nipples, mastitis, breast abscess and active herpetic lesion of breast are excluded.

Data collection procedure: A detailed questionnaire was introduced to women who fulfilled the inclusion criteria after taking verbal and informed consent. Objective of the study were explained to women and only those showing willingness to participate were interviewed. Questionnaire contained three parts. In first part demographic feature of the respondents were

recorded the next part contained more specific questions about their perception regarding breast feeding during Covid-19 pandemic and against each question respondent's answer were marked with yes, no or don't know options. Third part comprised of questions regarding practices of breast feeding during Covid-19 pandemic like washing hands, wearing masks and use of top feeding instead of exclusive breast feeding in covid positive cases and finally source of information.

Data analysis plan: Data was stored and analyzed using IBM-SPSS version 23.0. Means with standard deviation were given for baseline quantitative data (age, parity, duration of breast feeding etc.), Counts with percentages were reported for qualitative study variables, (like gender, education, socio economic class, breast feeding status etc.). Pearson chi square test was used to test the association of breast-feeding perceptions during covid-19 with studied factors. P-values less than 0.05 were considered statistically significant.

Ethical considerations: A written informed consent was taken from participants after informing them the objective of the study and only those who felt comfortable and agreed were included in study. The names and other identities of the participants were kept confidential and only principal investigators were allowed to access the data.

RESULTS

The study included 206 females participants. Table 1 reports the means of quantitative variables. Mean age was 28.8 years (SD \pm 5.0). Mean number of live births was 2 (SD \pm 1). Mean number of antenatal checkups were 7 (SD \pm 2.4). Mean age of last child born was 257 days (SD \pm 505).

64 patients (30.5%) were primiparous, while 146 (69.5%) were multigravida. Most of the patients belong to middle class i.e (86.7%). 91 patients (43.3%) were undergraduate while 61 (29%) were graduate and above. 174 patients (82.9%) were not employed, 148 patients (70.5%) had past breastfeeding experience, 41 (19.5%) had no past breastfeeding experience while 21 patients (10%) had no children. 164 females (78.1%) were currently breastfeeding their babies, while 46 (21.9%) were not.

45 patients (21.4%) claimed they had not been informed about breastfeeding during their antenatal check-ups, while 165 (78.6%) claimed that they had been well informed about breastfeeding. Feeding decision was made before, during and after pregnancy in 165 (78.6%), 24 (11.4%) and 21 (10%) patients respectively. 117 ladies (55.7%) claimed they had received social support for breastfeeding during covid pandemic, while 93 ladies (44.3%) claimed otherwise. Out of all, 130 (61.9%) had tested, while 80 (38.1%) did not take any covid test. Out of 130 women who

tested, 4 (3%) had positive PCR test, while 11 (8.4%) had positive serology.

Table No.1: Means of quantitative variables

Variable	Mean	Standard deviation
Age (years)	28.8	± 5.0
Duration of breastfeeding (min)	11.5	± 6.4
Number of live births	2	± 1
Antenatal clinic visits	7	± 2.4
Age of last child (days)	257	± 505

Table No.2: Perception of participants regarding breastfeeding and Covid

Variable		Frequency	%age
In communities where covid 19 is prevalent, should mothers breastfeed?	Yes	139	66.2%
	No	38	18.1%
	Don't know	33	15.7%
Can covid 19 infection be transmitted through breastfeeding?	Yes	71	33.8%
	No	96	45.7%
	Don't know	43	20.5%
Will you initiate and continue breastfeeding during corona disease outbreak?	Yes	155	73.8%
	No	29	13.8%
	Don't know	26	12.4%
Does breastfeeding protect the child against covid 19 disease?	Yes	139	66.2%
	No	27	12.9%
	Don't know	44	21%
Do you think wearing a mask is mandatory during breastfeeding?	Yes	121	57.6%
	No	70	33.3%
	Don't know	19	9%
Do you prefer direct breastfeeding over top feed if you are suspected or confirmed case of covid 19?	Yes	71	33.8%
	No	59	28.1%
	Don't know	80	38.1%
Do you think hand washing prior to breastfeeding helps prevent transmission of covid 19 to your baby if you are a suspected or confirmed case of covid 19?	Yes	177	84.3%
	No	13	6.2%
	Don't know	20	9.5%
Avoid coughing or sneezing on the baby while feeding at the breast?	Yes	152	72.4%
	No	26	12.4%
	Don't know	32	15.2%
Has lockdown affected breastfeeding practices to child?	Yes	62	29.5%
	No	100	47.6%
	Don't know	48	22.9%
Following delivery, should baby be placed skin to skin if mother is suspected or confirmed covid 19?	Yes	5	2.4%
	No	166	79.4%
	Don't know	38	18.2%
If mother with suspected or	Yes	32	15.2%

confirmed covid 19 is too unwell to breastfeed, should she give expressed milk?	No	150	71.4%
	Don't know	28	13.3%
In Covid pandemic, is it still necessary to give exclusive breast milk to infant?	Yes	101	48.3%
	No	56	26.8%
	Don't know	52	24.9%

Table 02 reports breastfeeding practices. 139 women (66.2%) suggested breastfeeding should continue even in communities where covid is pandemic, 155 women (73.8%) claimed that they would continue breastfeeding during covid outbreak, while only a minority, i.e. 5 women (2.4%) claimed that baby should be placed skin-to-skin with mother if mother is covid positive. Regarding transmission of virus, 71 (33.8%) claimed that covid virus can be transmitted via breastfeeding, 121 (57.6%) said wearing a mask should be mandatory while breastfeeding and 177 women (84.3%) suggested washing hands prior to breastfeeding helps prevent transmission of virus from mother to baby. Regarding beneficial effects of breastfeeding, 139 women (66.2%) thought breastfeeding protects the child against covid disease. If suspected or confirmed case of covid pneumonia, 71 women (33.8%) said they would still prefer direct breastfeeding over top feeding. 62 mothers (29.5%) reported that lockdown had affected breastfeeding practices,

Figure 1 reports sources from where mothers took breastfeeding advice. Most was from healthcare professionals (29%), while social circle helped in 27.6% of the ladies, and 19% had benefitted from social media.

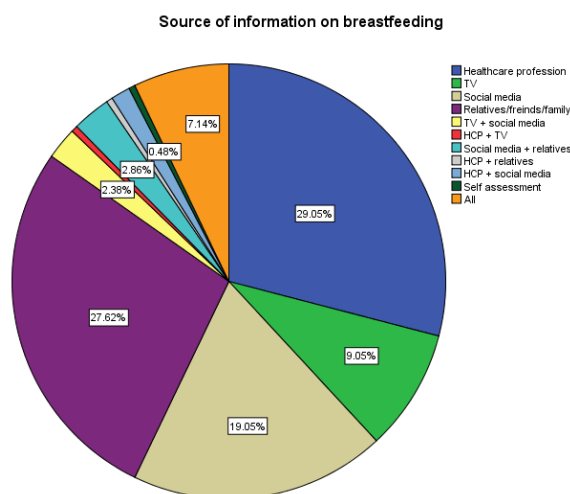


Figure No.1: Depicts the percentage wise distribution of resources from which mothers took guidance regarding breastfeeding

When breastfeeding practices were compared with other categorical variables, literacy rate and working status were statistically significantly related with knowledge regarding breastfeeding protection, covid 19 precautions and transmission, breastfeeding during

covid pandemic, expressing breast milk in case of illness to mother (p value <0.05).

DISCUSSION

Covid 19 pandemic has engulfed the world completely in its fearsome aura and has changed how healthcare looked like to a big extent. It has also put doubts and fears in minds of many regarding basic practices which were once considered a societal norm. One of such practices is of breastfeeding, therefore this study was designed to evaluate the breastfeeding practices and beliefs in women of Pakistan during covid pandemic.

A study conducted in India in 2021 to evaluate the knowledge of healthcare personnel regarding breastfeeding practices showed grave deficiency, with 294 (54.1%) participants (who were obstetricians or pediatricians) having adequate knowledge regarding breastfeeding recommendations. On the other hand, 15% of participants were not aware of any guidelines on breastfeeding during the COVID-19 pandemic.⁽¹⁶⁾

A retrospective analysis of Medline, Embase, Web of Science, Cochrane Library, China Biology Medicine disc, China National Knowledge Infrastructure and Wanfang by Nan Yang and *et al* in 2020 showed that covid is not transmitted via breast milk. Nevertheless, women with suspected or confirmed covid disease should take precautions when feeding their babies.⁽¹⁷⁾

This is consistent with the results of our study, in which 66.2% of women suggested breastfeeding should continue even in communities where covid is pandemic.

A study by Kailey Snyder showed mothers' ability to obtain breastfeeding support was negatively impacted by the pandemic due to inability to engage with individuals in-person and the lack of access to childcare. First-time mothers may be at higher risk of early breastfeeding cessation due to lack of support.⁽¹⁸⁾

This is contrary to our study, in which majority women (47.6%) were of the opinion that breastfeeding practices have not been affected by lockdown.

In our study, majority women (45.7%) did not believe that covid could be transmitted via breast milk, majority (62%) also believed that breastfeeding actually protects the infant against covid pneumonia, This is in accordance with the study published in *International Breastfeeding Journal* in 2020, in which authors commented that breastfeeding should be encouraged and skin-to-skin contact ensured throughout the COVID-19 pandemic. If mothers are too ill to breastfeed, they should still be supported to express their milk.⁽¹⁹⁾ Regarding wearing mask while breastfeeding, American Academy of Pediatrics states that it is not necessary if mother is fully vaccinated. However, if mother has symptoms of covid or had close contact with covid positive patient, then it is advisable to wear a mask.⁽²⁰⁾ This was also suggested by many participants in our study, precisely 121 women (57.6%), In our study, participants reported that they mostly took

information and guidance regarding breastfeeding practices from healthcare personnel (61 women, i.e 29%) This was emphasized upon by Tsorng-Yeh Leea *et al* and Qiu Ju Ng *et al* in their studies in which authors reported that majority of women had breastfeeding guidance from healthcare professionals, and lack of this bridge caused anxiety, trauma, emotional instability and other difficulties for mothers.^(21, 22)

CONCLUSION

Covid 19 pandemic has affected breastfeeding practices. Majority women suggested breastfeeding should continue even in communities where covid is pandemic.

Author's Contribution:

Concept & Design of Study:	Aliya Nasim
Drafting:	Farhan Saeed, Erum Saboo
Data Analysis:	Naima Shah, Madiha Batool Zaheer
Revisiting Critically:	Aliya Nasim, Farhan Saeed
Final Approval of version:	Aliya Nasim

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. *Acta Biomed* 2020;91(1):157-60.
2. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel corona virus in Wuhan, China. *The Lancet* 2020;395(10223):497-506.
3. Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *N Engl J Med* 2020;382:1199-207.
4. Sentilhes L, De Marcillac F, Jouffrieau C, Kuhn P, Thuet V, Hansmann Y, et al. Coronavirus disease 2019 in pregnancy was associated with maternal morbidity and preterm birth. *Am J Obstet Gynecol* 2020;223(6):914.
5. Chen H, Guo J, Wang C, Luo F, Yu X, Zhang W, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. *Lancet* 2020;395(10226):809.
6. Zeng L, Xia S, Yuan W, Yan K, Xiao F, Shao J, et al. Neonatal early-onset infection with SARS-CoV-2 in 33 neonates born to mothers with COVID-19 in Wuhan, China. *JAMA Pediatr* 2020;174(7):722-5.
7. Dong L, Tian J, He S, Zhu C, Wang J, Liu C, et al. Possible vertical transmission of SARS-CoV-2

- from an infected mother to her newborn. *JAMA* 2020;323(18):1846–8.
8. Kyle MH, Glassman ME, Khan A, Fernández CR, Hanft E, Emeruwa UN, et al. A review of newborn outcomes during the COVID-19 pandemic. In *Seminars in perinatology*. WB Saunders; 2020.p. 151286.
 9. Fox A, Marino J, Amanat F, Krammer F, Hahn-Holbrook J, Zolla-Pazner S, et al. Evidence of a significant secretory-IgA-dominant SARS-CoV-2 immune response in human milk following recovery from COVID-19. *MedRxiv* 2020 Jan 1.
 10. Zhu H, Wang L, Fang C, et al. Clinical analysis of 10 neonates born to mothers with 2019-nCoV pneumonia. *Transl Pediatr* 2020;9(1):51–60.
 11. Li Y, Zhao R, Zheng S, Chen X, Wang J, Sheng X, et al. Lack of vertical transmission of severe acute respiratory syndrome coronavirus 2, China. *Emerg Infect Dis* 2020;26(6):1335–1336.
 12. Wu Y, Liu C, Dong L, et al. Coronavirus disease 2019 among pregnant Chinese women: case series data on the safety of vaginal birth and breastfeeding [published online ahead of print, 2020 May 5]. *BJOG* 2020;127(9):1109–1115.
 13. American Academy of Pediatrics, (AAP). Guidance on breastfeeding during the COVID-19 pandemic. Available at: <https://www.aapublications.org/news/2020/04/23/covid19breastfeeding042320>. Issued 23 Apr 2020. Accessed 19 June 2020.
 14. Pereira A, Cruz-Melguizo S, Adrien M, Fuentes L, Marin E, Forti A, Perez-Medina T. Breastfeeding mothers with COVID-19 infection: a case series. *Int Breastfeeding J* 2020;5(1):1-8.
 15. Bhatt H. Should COVID-19 mother breastfeed her newborn child? A literature review on the safety of breastfeeding for pregnant women with COVID-19. *Current Nutrition Reports* 2021;1:1-5
 16. World Health Organization 2. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV).World Health Organization (WHO) 2020. Available at [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov)).
 17. Malik S, Joshi P, Gupta PK, Sharma S. Assessment of knowledge and opinion regarding breastfeeding practices during COVID-19 pandemic among paediatricians and obstetricians in India: an online survey. *Sudanese J Paediatr* 2021;21(1):30.
 18. Yang N, Che S, Zhang J, Wang X, Tang Y, Wang J, et al. Breastfeeding of infants born to mothers with COVID-19: a rapid review. *Annals Translational Med* 2020;8(10).
 19. Snyder K, Worlton G. Social support during COVID-19: perspectives of breastfeeding mothers. *Breastfeeding Med* 2021;16(1):39-45.
 20. Lubbe W, Botha E, Niela-Vilen H, Reimers P. Breastfeeding during the COVID-19 pandemic—a literature review for clinical practice. *Int Breastfeeding J* 2020;15(1):1-9.
 21. American Academy of Pediatrics. Breastfeeding during the Covid-19 pandemic. Last updated: Oct 9, 2021. Accessed on Mar 17, 2022. Available from: https://publications.aap.org/patiented/article/doi/10.1542/ppe_document201/418
 22. Lee TY, Zhong Y, Zhou J, He X, Kong R, Ji J. The outbreak of coronavirus disease in China: Risk perceptions, knowledge, and information sources among prenatal and postnatal women. *Women and Birth* 2021;34(3):212-8.
 23. Ng QJ, Koh KM, Tagore S, Mathur M. Perception and feelings of antenatal women during COVID-19 pandemic: a cross-sectional survey. *Ann Acad Med Singap* 2020;49:543-52.
 24. Ceulemans M, Verbakel JY, Van Calsteren K, Eerdeken A, Allegaert K, Foulon V. SARS-CoV-2 infections and impact of the COVID-19 pandemic in pregnancy and breastfeeding: Results from an observational study in primary care in Belgium. *Int J Environmental Research Public Health* 2020; 17(18):6766.