Short Communication

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Feeding practices and obstetricians recommendations during COVID-19: a telephone-based qualitative study in South India

Sree T. Sucharitha^{1,2}*, R. Vijaya Lakshmi³, R. Venugopal⁴, Revathi Rajasingh⁵, R. Nivetha⁶

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*Correspondence:

Dr. Sree T. Sucharitha,

E-mail: sucharithat2@gmail.com

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ABSTRACT

Infant and young child feeding practice (IYCF) by World Health Organization (WHO) strongly encourage initiation and continuation of exclusive breastfeeding (EBF) in the COVID-19 pandemic backdrop with essential counseling about the benefits of breastfeeding against risks of transmission. This study aimed to explore qualitatively the knowledge and understand the recommended practices regarding infant and IYCFs during COVID-19 pandemic among obstetricians in diverse care settings in Chennai. One-to-One telephone-interviews were conducted among sixteen obstetric practitioners from diverse care settings in Chennai during May 2021-October 2021 using a 13-item interview guide and recorded with informed consent. The transcribed data were analyzed thematically. Among the all-female study participants, the mean age was 39.7 years (SD=10.45 years) and 68.8% (11) were aged 31-40 years, 180 lactating mothers received COVID-19 counseling and 130 referred for testing in preceding month, 56.3% were aware that COVID-19 is not passed in breast milk and 93.8% knew it is safe to feed breast milk from suspectedor confirmed positive mothers. All obstetricians were aware of hygiene recommendations for lactation mothers and only 75% were aware of WHO recommendation for IYCF during-COVID-19. This qualitative study unearths the key areas to focus on during awareness and training sessions for obstetricians further strengthen the promotion of optimal breastfeeding practices during the COVID-19 pandemic.

Keywords: COVID-19, Infant and IYCFs, Obstetricians, Qualitative study, Thematic analysis

INTRODUCTION

The growth and development of humans, as well as our nation mainly depends on nutrition intake. The first two years of a child are considered a critical period for appropriate growth, development and survival which is achieved by providing them with an ideal food i.e., breastfeeding. 2,3

An imbalance of nutrients among infants and young children causes malnutrition either under nutrition or over nutrition which is still one of the most underrated problems faced by the country.⁴ To prevent malnutrition among vulnerable infants and young children we should encourage and counsel their mothers to continue practicing EBF togetherwith complementary feeding. Continued low rates of EBF have raised public health concerns globally,

¹CEO-Founder Kairos Kinetic (OPC Pvt Ltd), Chennai, Tamil Nadu, India

²Department of Community Medicine, Annaii Medical College, Rajalakshmi Health City, Kanchipuram, Tamil Nadu, India

³Tagore Nursing College, Tagore Medical College and Hospital, Rathinamangalam, Chennai, Tamil Nadu, India

⁴Department of Biochemistry, Annaii Medical College, Rajalakshmi Health City, Kanchipuram, Tamil Nadu, India

⁵Department of Obstetrics and Gynaecology, Bhaarath Medical College and Hospital, Selaiyur, Chennai, Tamil Nadu, India

⁶Rapid Response Team, World Health Organisation, Chennai, Tamil Nadu, India

resulting in a revision of the UNICEF ten step guidelines to successful breastfeeding, known as the baby-friendly hospitals initiative (BFHI).⁴ The revision promotes adapted factors ensuring all infants can have access to optimal nutrition intake, essential for growth and development.⁴ The habitual intervention of EBF for the first six months and appropriate complementary feeding after six months along with continued breastfeeding for twoyears or beyond can help in preventing one-fifth of the under-five child mortality.⁶ Therefore, it is crucial to sustain the optimal infant and IYCFs of newborn, infant and young children.

Infant and young child feeding is a set of well-known recommendations for appropriate feeding of newborns and children under two years which include initiation of breast feeding immediately preferably within one hour after birth, EBF for the first six months, and thereafter to meet the evolving nutritional needs, continued breastfeeding up to the age of two years or beyond with age-appropriate andadequate complementary feeding.⁷

Overtimes, the Ministry of Health and Family Welfare (MoHFW), the government of India sets various strategies to promote IYCF under the national health mission (NHM) for counseling the mothers about the importance of IYCF during antenatal care visits, at the time of delivery and postnatal care visits by obstetricians, while home visits by healthcare workers such as Accredited Social Health Activist (ASHA) and in specialized centres such as special newborn care units (SNCUs), Nutrition Rehabilitation Centres (NRCs) and Comprehensive Lactation Management Centres (CLMCs).

Various national programs such as POSHAN abhiyaan (national nutrition mission), pradhan mantri surakshit matritva abhiyaan (PMSMA), surakshitmatritva aaswasan (SUMAN), mother's absolute affection (MAA) programmes, celebrating world breastfeeding week and village health sanitation and nutrition days (VHSND) mainly focus on first 1000-days of the child life highlighting the importance of nutrition in the early life.¹⁰

The outbreak of COVID-19 disease in December 2019 was reported in Wuhan, China and the subsequent impact on healthcare delivery as the COVID-19 pandemic evolved is the topic of research interest.¹¹ Maternal and child health services are designated as essential healthcare services and even when the guidelines for breastfeeding in context to COVID-19 suspected or confirmed cases were lacking, obstetricians were practicing in the dark.¹² Infant and IYCF by WHO strongly encourage initiation and continuation of EBF in the COVID-19 pandemic backdrop with essential counseling about the benefits of breastfeeding against risks of transmission. 13 So, there is a need to explore qualitatively the knowledge and understand the recommended practices regarding infant and IYCFs during the COVID-19 pandemic among obstetricians.

METHODS

Study design

The exploratory qualitative approach was used in this present study to understand the knowledge as well as the recommended IYCF practices by obstetricians among lactating mothers as COVID-19 pandemic is evolving. This approach is favored for in-depth probing of the factors influencing case-by-case decision making by clinicians. During a global pandemic of unprecedented nature, this qualitative approach was a much more practical and feasible due to quarantine measures imposed by law necessitating transition to remote data collection methods through telephone interviews. Reflexivity of research based on the relationship of interviewer with participants the co-investigator (RS) a practicing obstetrician conducted the telephone-based interviews after receiving training from PI (STS). She is currently working as consultant in reputed fertility centre, and formal and professional relationships established prior to the study were instrumental in recruiting participants in research study. The interviews were mainly performed in the field of interest of all the researchers to contribute and fill the currentgaps in IYCF field.

Sampling technique and sample size

This study included 16 obstetricians practicing in diverse settings such as owning private clinics and consultants in multi-specialty and teachinghospitals in Chennai based on their availability with prior appointments during May 2021 to October 2021. Convenience and snowball sampling was used and none of them were dropouts of this study for any reason. Research content saturation occurred after 16 interviews and study was concluded.

Data collection methods

This study used 13-item semi-structured interview guide developed from literature review of peer published global literature. This guide was pretested among two obstetricians for the credibility, reliability, and validity before the final interviews. All the one-on-one interviews were audio-recorded with informed consent. The interviews lasted an average of 10-20 minutes and additional notes were taken.

Data analysis

Two authors transcribed the audio recordedthe interviews and analysed using Braun and Clarke framework. ¹⁹ Audio-recorded data was transcripted and was not returned to the participants but based on the notes, paraphrasing the content of the interview through recapping the summary for clarification and additions were done at the end of the interview. Thematic codes were assigned manually based on the interview guide by two authors. Descriptive statistics were performed and presented as n (%) or mean with 95% CI. The COREQ

(Consolidated criteria for RE-porting qualitative research) checklist were used for conducting the study and reporting the results.²⁰

Ethics

Ethics approval was received from institutional ethics committee of Omayal Achi college of nursing, Chennai, Tamil Nadu prior to data collection. Informed oral consent was obtained prior to starting the interviews and participants were allowed to withdraw from the study at any time, and all participation was voluntary. To assure participants' confidentiality, no names and personal information were included in the data. The collected data were stored in the researcher phone and laptop with the password-lockedfile.

RESULTS

In this qualitative study, 16 practicing obstetricians were interviewed about IYCF practices during COVID-19 pandemic. Among the all-female study participants, the mean age was 39.7 years (SD=10.45 years) and 68.8% were aged 31-40 years. ¹¹

The interview data were analysed manually and

statements fell under the themes pre-designated as per the interview guide and described below:

Table 1: Demographic, professional characteristics of the study participants (n=16).

Variables		N	Percentage (%)
Age (in years)	<30	1	6.3
	31-40	11	68.8
	>40	4	25
Educational qualification	Diploma in OBG	8	50
	Masters in OBG	8	50
Working	<10	10	62.5
experience (in years)	>10	6	37.5
Patients	Urban	2	12.5
geographic*	Rural	5	31.3
background	Mixed	9	56.3

*Data are shown as percentages (%) of the total number of participants. patients. *Geographic data are shown as percentages (%) of participants providing services to clients majorly to rural/urban or a combination of both (mixed).

Table 2: Knowledge and recommended practices by practitioners to lactating mothers, (n=16).

Characteristics		N	Percentages (%)
Section 1: Knowledge			
Can COVID-19 bepassed through breastfeeding?	No	9	56.3
	Yes	4	25
	Don't know	1	6.3
	May be	2	12.5
In communities where COVID-19 is prevalent, should mothers breastfeed?	Don't know	1	6.3
	Yes	15	93.8
T. 11	No	1	6.3
Following delivery, should a baby still be	Yes	12	75.0
immediately placed skin-to-skin and breastfed if the	May be	1	6.3
motheris confirmed/ suspected to have COVID-19	Don't know	2	12.5
If a mother is confirmed/suspected to have COVID-	Yes	15	93.8
19, should she continue breast feeding?	Don't know	1	6.3
What are the hygiene recommendations for a breastfeeding mother confirmed/suspected to have COVID-19?	N-95 mask	2	12.5
	Hand hygiene	7	43.8
	Sanitizer/surface disinfection	1	6.3
	Face shield	1	6.3
	Surgical mask	12	75
	Social distaining	3	18.8
	Breast washing behavior	6	37.5
If a mother confirmed/suspected to have COVID-19 does not have a medical face mask should she still breastfeed?	No	9	56.3
	Yes	6	37.5
	May be	1	6.3
Is it necessary for a mother with confirmed/ suspected COVID-19 to wash her breast before she breastfeeds directly/before expressing milk?	No	14	87.5
	May be	1	6.3
	Don't know	1	6.3
IS 4 C 1/ 1 1 COVID 10	Expressed milk	11	68.8
If a mother confirmed/suspected to have COVID-19	Animal milk	1	6.3
is not able to breastfeed what is the best way tofeed her new-born/infant?	Formula feed	7	43.8
ner new-born/inrant?	Milk bank	2	12.5

Continued.

Is it safe to give expressed breastmilkfrom a mother confirmed/suspected to have COVID-19 was unable to breastfeed because shewas too ill or because of another illness, when can she start to breastfeed again? Do the results of COVID-19 testing make any difference toinfant and young childfeeding recommendations? If a mother is confirmed/suspected to have COVID-19 (another is confirmed/suspected to have COVID-19), isinfant formula milk safer for infants? Do you provide adviceto a patient asking COVID-19 information? Are you aware of WHO guidelines on breastfeeding practices during COVID-19? Did you consider referring a lactating mother to COVID-19 testing/ referrals to designated centers forfurther evaluation based on symptoms asper the national guidelines in previous? If yes, which guidelines (National orState or Institution? No	Characteristics		N	Percentages (%)
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Institution? Institutional 1 6.3	If yes, which guidelines (National orState or	State	2	12.5
			1	6.3
		National	9	56.3

QUALITATIVE ANALYSIS

Theme 1: Universal recommendation and promotion of exclusive breast- feeding practices during COVID-19 pandemic

Obstetricians interviewed for this study revealed universal strong aptitude for promotion of exclusive breast-feeding practices among their clients.

Sub theme 1: EBF in combination with COVID-19 hygiene measures

Majority of the interviewees discussed a wide-range of COVID-19 preventive hygiene measures which a lactating mother has to practice during breast-feeding and revealed that they counselled them as their routine care protocol.

"Yes, they should breast feed," (Age 36)

"Proper hand hygiene and wear mask, wash breast before feeding," (Age 53)

"Better to wear mask and glove. That'sall," (Age 46)

Sub theme 2: EBF and risk of transmission of COVID-19

Some of the interviewed clinicians also shared insights about transmission dynamics related to breast-feeding and COVID-19.

"Recent answer I do not know Breast milk transmission," (Age 47)

"May be-skin to skin," (Age 57)

"No breast feeding without face mask," (Age 62)

"No, it can't be passed through breast feeding but while breast feeding," (Age 25)

"Hmmm. yes...breast milk can pass COVID," (Age 43)

"Am not sure about it - Skin to skin contact of mother and baby," (Age 26)

"Not required to wash breast before expressing milk," (Age 62)

Sub theme 3: EBF in combination with COVID-19 hygiene measures

Majority of interviewees discussed a wide-range of COVID-19 preventive hygiene measures which a lactating mother has to practice during breast-feeding and revealed that they counseled them as their routine care protocol.

"It's better to wash breast even for normal individual," (Age 36)

"Proper hand hygiene and wear mask, wash breast before feeding," (Age 25)

"Basic hand hygiene and use of mask during breast feeding," (Age 45)

"Before feeding-Wear surgical/N95 mask/counselled about IYCF," (Age 32)

One senior interviewee, (age 58) mentioned: "She should have face shield, N95, hand hygiene and breast wash before feeding, baby to be covered too."

Theme 2: Updation of WHO guidelines and institutional protocols in the evolving nature of pandemics.

Most of the interviewed practitioners mentioned their predominant source for reference was WHO but few also referred institutional guidelines which are based on state and regional recommendations.

"Yes-standard quidelines-state," (Age 32)

"Standard-national guidelines." (Age 35)

Practitioners also admitted during interviews that they have not referred guidelines duringearly stages of pandemic.

"I haven't referred any standard guidelines," (Age 39)

"Get help of pediatirician as am not sure what to do," (Age 43)

"Not so-have not referred any guidelines. I haven't," (Age 32)

DISCUSSION

Recommendations from WHO in the early May 2020 along with international agencies recommended early initiation of breast feeding in addition to COVID-19 preventive measures for suspected or confirmed mothers. Studies on risk of transmission of SARS-

CoV-2 virus in breast milk also suggested low evidence. 29-30 In this qualitative study, majority of the interviewed doctors also held strong knowledge component reflecting the same. This translated to recommending exclusive breast-feeding practices during pandemic with preventive measures such as wearing mask, covering the baby and hand-hygiene practices. Interactions also revealed that during situations wherein mothers are unable to breastfeed, expressed breast milk, milk bank substitutes and animal milk substitutes were identified as alternative feeding options by the participants. This is similar to the international guidelines proposed by WHO-EMRO where cultural factors and acceptance of milk bank substitutes were predominantly addressed. 31

In our cohort majority of obstetricians were counselling mothers about COVID-19 preventive measures and referring them for advanced care whenever the situation prompted. According to ministry of health and family welfare-MoHFW-enabling delivery of essential health services during the COVID-19 outbreak (14th April, 2020) along with early initiation of breast- feeding practices, Kangaroo mother care was promoted as per MAA and KMC guidelines. In a Nova Scotian study, caregivers reported minimal changes in feeding practices despite COVID-19.³² This is similar to our study, wherein majority of respondents strongly advocated for early initiation of breast feeding and promotion of exclusive breast-feeding during pandemic. As per guidelines, practitioners discussed in free-flow conversation style, various case scenarios wherein a sick mother's inability to breast-feed can result in advising infant formula or expressed breast milk by 'pumping'. Inconsistencies in adopting these practices has been identified to be contributing to lack of evidence to promote during emergencies.33,34

The respondents were asked about the sources of knowledge updates during pandemic and a significant majority referred WHO guidelines and additionally National professional body guidelines such as Indian academy of pediatricians (IAP). This is in contrast with global studies done in Taiwan and Nova Scotia where internet and social media were major sources of information related to COVID-19.^{32,35} Unlike 29% caregivers having total lack of knowledge about IYCF practices due to COVID-19 reported by Fry et al in this study 18.75% (n=3) admitted the same.

CONCLUSION

COVID-19 pandemic impacted significantly on health care delivery and practices however as this qualitative study revealed practitioners are strongly adhering to promotion of early initiation as well as exclusive breast-feeding among mothers. Interventions to continue medical education programs for constant knowledge updation will further strengthen the infant feeding practices.

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REFERENCES

- Children, Food and Nutrition-UNICEF. 2022. Available at: https://zbook.org/read/1530fe_children-food-and-nutrition-unicef.html. Accessed on 11 March, 2024.
- 2. Infant and young child feeding-UNICEF data. 2022. Available at: https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/. Accessed on 11 March, 2024.
- 3. Operational Guidelines. Available at: https://nhm.gov.in/ MAA/Operational_Guidelines. pdf. Accessed on 11 March, 2024.
- 4. Save the Children International. Save the Children International. 2022. Available at: https://www.savethechildren.net/. Accessed on 11 March, 2024.
- Digital S. Breastfeeding Advice During the COVID-19 Outbreak | Save the Children's Resource Centre. Save the Children's Resource Centre. 2022. Available at: https://resourcecentre.savethechildren.net/document/breastfeeding-advice-during-covid-19-outbreak. Accessed on 11 March, 2024.
- SOWC-2019.pdf. Available at: https://www.unicef. org/media/60806/file/SOWC-2019.pdf. Accessed on 11 March, 2024.
- 7. National Guidelines on Infant and Young Child Feeding. Available at: https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=1606698. Accessed on 11 March, 2024.
- 8. Operational Guidelines on Infant and Young Child Feeding. 29. Available at: https://imaindia.org/windata/Operational-Guidelines.pdf. Accessed on 11 March, 2024.
- 9. Kapil U, Chaturvedi S, Nayar D. National nutrition supplementation programmes. Indian Pediatr. 1992;29(12):1601-13.
- National Guidelines Lactation Management Centres. Available at: https://nhm.gov.in/images/pdf/ programmes/IYCF/National_Guidelines_Lactation_ Management_Centres.p df. Accessed on 11 March, 2024.
- 11. 1000 Days Nutrition Brief Brain Think Babies FINAL. Available at: https://thousanddays.org/wp-content/uploads/1000Days-Nutrition_Brief_Brain-Think_Babies_FINAL.pdf. Accessed on 11 March, 2024.
- 12. WHO.int. 2022. Available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4. Accessed on 11 March, 2024.
- 13. Breastfeeding and COVID-19. Who.int. 2022. Available at: https://www.who.int/news-room/commentaries/detail/breastfeeding-and-covid-19. Accessed on 11 March, 2024.
- 14. Breastfeeding advice during the COVID-19 outbreak.

- World Health Organization-Regional Office for the Eastern Mediterranean. 2022. Available at: http://www.emro.who.int/nutrition/news/breastfeedin g-advice-during-the-covid-19-outbreak.html. Accessed on 11 March, 2024.
- 15. Barona-Vilar C, Escribà-Agüir V, Ferrero-Gandía R. A qualitative approach to social support and breastfeeding decisions. Midwifery. 2007;25:187-94.
- 16. Muñoz-Amat B, Pallás-Alonso CR, Hernández-Aguilar M-T. Good practices in perinatal care and breastfeeding protection during the first wave of the COVID-19 pandemic: a national situation analysis among BFHI maternity hospitals in Spain. Int Breastfeed J. 2021;16(1):66.
- 17. Hull L, Petrides KV, Mandy W. The Female Autism Phenotype and Camouflaging: a Narrative Review. Rev J Autism Dev Disord. 2020;7(4):306-17.
- 18. Vellido A, Lisboa PJG, Meehan K. Quantitative Characterization and Prediction of On-Line Purchasing Behavior: A Latent Variable Approach. Int J Electron Commer. 2000;4(4):83-104.
- 19. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3:77-101.
- COREQ (Consolidated Criteria for Reporting Qualitative Studies)-Guidelines for Reporting Health Research: A User's Manual-Wiley Online Library. Available at: https://onlinelibrary.wiley.com/doi/ 10.1002/9781118715598.ch21. Accessed on 11 March, 2024.
- 21. WHO.2020. Breastfeeding advice during the COVID 19 outbreak. Available at: http://www.emro. who.int/nutrition/nutrition-infocus/breastfeeding-advice-during-COVID-19-outbreak.html. Accessed on 11 March, 2024.
- UNICEF: Coronavirus Disease (COVID 19) information centre. Available at: https://www.unicef.org/coronavirus/covid-19. Accessed on 11 March, 2024.
- Centres for Disease Control and Prevention, USA.
 Considerations for Inpatient Obstetric Healthcare Settings. Available at: https://www.cdc.gov/coronavirus/2019cov/hcp/inpatient-obstetric-healthcare-guidance.html. Accessed on 11 March, 2024.
- 24. Ministry of Health and Family Welfare. Guidelines for Management of COVID 19. Available at: https://www.mohfw.gov.in. Accessed on 11 March, 2024.
- 25. ICMR-National Institute for Research in Reproductive Health 2020. Guidance for Management of Pregnant Women in COVID-19 Pandemic. Available at: https://icmr.nic.in/sites/default/filesupload_documents/Guidance_for_Management_of_Pregnant_women_in_COVID19_Pandemic_12042020.pdf. Accessed on 11 March, 2024.
- 26. Chawla D, Kumar P, Mittal P, Deorari AK, Ganatra A, Gandhi A, et al. Perinatal-neonatal management of COVID-19 infection, 2020. Indian Pediatr. 2020;57(6):536-48.

- 27. The Human Milk Bank Association of India, IAP-IYCF Chapter, PATH April 2020. Guidance for Use of Human Milk in the Context of COVID-19 in India. Available at: https://www.path.org/resources/guidance-use-human-milk-india-context-covid-19. Accessed on 11 March, 2024.
- 28. Update-on-COVID-19-and-Breastfeeding. Available at: https://www.bpni.org/covid-19-and-breastfeeding-resources/ 21. Accessed on 11 March, 2024.
- Chen H, Guo J, Wang C, Luo F, Yu X, Zhang W. 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):809-15.
- 30. Rasmussen SA, Smulian JC, Lednicky JA, Wen TS, Jamieson DJ. Coronavirus disease 2019 (COVID-19) and pregnancy: what obstetricians need to know. Am J Obst Gynecol. 2020;222(5):415-26.
- 31. WHO EMRO Breastfeeding advice during the COVID-19 outbreak? Available at: http://www.emro. who.in. Accessed on 11 March, 2024.
- 32. Fry HL, Levin O, Kholina K, Bianco JL, Gallant J, Chan K, et al. Infant feeding experiences and

- concerns among caregivers early in the COVID-19 State of Emergency in Nova Scotia, Canada. Matern Child Nutr. 2021;17(3):e13154.
- 33. American Academy of Pediatrics. Infant feeding in disasters and emergencies: Breastfeeding and other options. AAP Policy and Publications. 2015.
- 34. Calil VMLT, Krebs VLJ, Brunow De Carvalho W. Guidance on breastfeeding during the COVID-19 pandemic. Revista da Associação Médica Brasileira. 2020;66(4):541-6.
- 35. Ko NY, Lu WH, Chen YL, Li DJ, Wang PW, Hsu ST, et al. COVID-19-related information sources and psychological well-being: An online survey in Taiwan. Brain, Behavior Immunity. 2020;87:153-4.

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