

Original Research Article

Knowledge attitude and practice of breast feeding among women who delivered during COVID-19 pandemic in Kollam District, Kerala

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ABSTRACT

Background: Breastfeeding takes part a very important role in regulating and deciding the growth and development of the infant. However, its prevalence has remained low worldwide.

Methods: A hospital-based cross-sectional study held in Taluk hospitals of Punalur and Karunagappally in Kollam district enrolled 100 mothers who had delivered from March 2020, attending the immunization center. purposive sampling was done and consent was obtained. The one-to-one interview was done with a pre-tested questionnaire to assess the knowledge, attitude, and practice on breastfeeding among mothers who delivered during the COVID-19 pandemic.

Results: In the knowledge of respondents, 99% knew that colostrum is the first breast milk. 83% of respondents knew that colostrum is important for the baby to maintain immunity. The attitude of the mothers showed that 50% disagreed that formula feeding is more convenient than breastfeeding. 91% opined that breast milk is the ideal food. More than 90% said that breastfeeding is more convenient than formula.

Conclusions: The level of exclusive breastfeeding is low among Indian mothers and the practice of breastfeeding is not as much as what is expected out of the high percentage of knowledge thus there is a need for improvement.

Keywords: Attitude, Breastfeeding, Covid and Breastfeeding, Knowledge, Mothers, Practice

INTRODUCTION

Breastfeeding is the top way to provide infants with the nutrients they require. WHO recommends exclusive breastfeeding which starts within one hour after birth till the baby is six months old. Nutritious complementary foods should then be added while continuing breastfeeding for up to two years or beyond.¹

Breastfeeding is the ideal feeding practice for infants which is promoted worldwide by health professionals. Both infants and mothers are benefited from breastfeeding. However, the prevalence of breastfeeding has remained low worldwide. This study was designed to

describe the knowledge attitude and practice of breastfeeding among mothers and to assess whether the COVID-19 pandemic has affected breastfeeding practices. This study is designed to describe the knowledge attitude and practice of breastfeeding among mothers and to assess whether the COVID-19 pandemic has affected breastfeeding practices.²

Kerala is a state with good health indicators. Although breastfeeding is nearly universal, the practice of exclusive breastfeeding is particularly low in Kerala.³ The low prevalence of exclusive breastfeeding may be one of the factors leading to the rise of malnutrition and infection among infants.⁴⁻⁷

Three basic strategies that can bring about a favorable change in the behavior of mothers towards feeding habits are information, education, and communication. Maternal knowledge and comfort predict the feeding practices that they will be following.⁸ In India, the main source of information for mothers remains their own family and friends, and a structured counseling service on child feeding is lacking. The nutritional status of children will be better by promoting feeding practices.⁹

Infant and young child feeding practices will directly affect the nutritional status of children under two years of age and ultimately influence the survival rates of children. Globally, more than nine million children under the age of five die every year. The promotion of breastfeeding knowledge leads to the promotion of attitude and subsequently to the improvement of their breastfeeding practices. Adequate energy intake and a diversified diet throughout the life cycle help ensure that women enter lactation without deficiencies and obtain adequate nutrients during high demand. Knowledge, ignorance, undesirable socio-cultural beliefs, and misconceptions prevailing in the community are reported to influence the breastfeeding behavior of lactating mothers. Very few women in India have the right knowledge about breastfeeding practices.¹⁰

The knowledge and awareness about the techniques of breastfeeding such as the time of initiation of feeding, latching on, mothers' position while feeding the baby, seems limited. Most of the women may encounter these problems related to improper techniques in the immediate postpartum period. The ideal time to educate them would be the antenatal period itself. However, in the busy antenatal clinics in India, this aspect is most neglected. The next most sensible period to assist and guide them to practice correct techniques would be the immediate postpartum period. In this pandemic, the anxiety levels of parents especially mothers have risen more rapidly. Among many queries and doubts that parents have during pregnancy, whether to breastfeed their baby or not is an important question that needs to be answered. As public health professionals, we have a great responsibility towards our society to guide them adequately.¹¹

METHODS

This cross-sectional study was conducted in two taluk hospitals namely, Karunagappally Taluk Head Quarters Hospital, Punalur Taluk Head Quarters Hospital of Kollam District.

There are 5 taluk hospitals in the Kollam district. They are Karunagappally Taluk Head Quarters Hospital, Sasthamkotta Taluk Head Quarters Hospital, Punalur Taluk Head Quarters Hospital, and Kottarakkara Taluk Head Quarter Hospital and Kadakkal taluk headquarters hospital. Out of the five Taluk hospitals, two hospitals were selected by simple random method. From the selected hospitals the mothers who were delivered during

the COVID-19 pandemic that is from March 2020 was selected purposively. Ethical clearance for this study was obtained from the Institution Ethics committee, Rajiv Gandhi Institute of Public Health, and Centre for Disease Control at Bangalore.

The mothers who were coming to the immunization clinic for vaccination were asked for the MCP card to check the date of delivery and 50 from each Taluk hospital were selected using the lottery method for the study. The study population consisted of mothers who have delivered the child during the ongoing COVID-19 pandemic since 2020 March.

Inclusion criteria

Mothers who have delivered during the COVID-19 pandemic. Women who gave consent for the study.

Data collection tools

After taking informed consent, data were collected by interviewing the mothers using pre- designed, pre-tested, and semi-structured questionnaire which was for (i) socio-demographic, knowledge, and practice information was collected through a pre-structured pre-tested questionnaire (ii) The Iowa infant feeding attitude scale (IIFAS) which is a pre-designed pre- tested questionnaire for attitude related information.

Before the study permission was taken from the district medical officer and the superintendent of both the taluk hospitals. The study participants were informed about the purpose and procedure of the study and their consent was taken and were assured about confidentiality. The questionnaire was administered by hand and was requested to fill them and were collected in person from the respective taluk hospitals. The questionnaire consisted of four parts of which the first part consisted of socio-demographic variables which were having questions about age, religion, type of family, income, educational status, and parity and the second part consisted of knowledge which had 13 questions and the third part consisted of attitude which had constituted 17 questions and the fourth part consisted of practice related 11 questions. A scoring system with a score of one for each correct answer and zero for the wrong answer was given. 50 mothers from each hospital were taken after filtering the incomplete response from the mothers.

Statistical analysis

Statistical analysis was done using Microsoft Excel and SPSS 20 version. Descriptive analysis of obtained data was done. The categorical data were presented in the form of frequency tables along with percentages. The quantitative variable was summarized using mean±standard deviation with 95% confidence interval (CI).

RESULTS

The mean age of the participants was calculated to be 25.15 with a standard deviation of 2.883. In the knowledge of respondents, 99% knew that colostrum is the first breast milk. 83% of respondents knew that colostrum is important for the baby to maintain immunity. The majority of the mothers stated that burping should be done after each feed (90%). 85% of mothers agreed that exclusive breastfeeding should be done. 90% of the mothers agreed that they will be continuing feeding for 2 years. More than half of the participants stated that the mother should not feed the child when she has diarrhea (54%). About 65% thought that one should stop feeding when they start to wean (Table 2).

The attitude of the mothers showed that 50% disagreed that formula feeding is more convenient than breastfeeding. 80% thought that breastfeeding increases mother-infant bonding. More than 50% agreed that formula feeding is a better choice if the mother goes to work (75%). More than 70% thought that women should not feed in public places (77%). 76% agreed that breastfed babies are healthier than formula-fed babies.

91% opined that breast milk is the ideal food. More than 90% said that breastfeeding is more convenient than formula (92%) (Table 3).

Table 1: Characteristics of population.

Age in years		Mean 25.15, SD 2.883	
		N	%
Religion	Hindu	43	43
	Muslim	43	43
	Christian	14	14
Type of family	Nuclear family	61	61
	Joint family	39	39
Total per capita income per month in INR	≥7008	73	73
	3504-7007	21	21
	2102-3503	6	6
Educational status	Secondary	42	42
	Pre-university	54	54
	Graduation	4	4
Parity	Primipara	54	54
	Multipara	46	46

Table 2: Knowledge of breastfeeding among respondents.

Variables		n	%
Colostrum is the first breast milk	Yes	99	99
	No	1	1
Colostrum is important for the baby to maintain immunity	Yes	83	83
	No	17	17
Burping should be done after each feed	Yes	90	90
	No	10	10
Breastfeeding should be continued up to 2 years	Yes	90	90
	No	10	10
Exclusive breastfeeding is till 6 months	Yes	85	85
	No	5	15
Lactating mother should take healthy food	Yes	91	91
	No	9	9
During breastfeeding, the mother should sit comfortably	Yes	89	89
	No	11	11
During breastfeeding, the mother should maintain eye to eye contact and talk with baby	Yes	79	79
	No	21	21
Wash each breast with warm water before feeding	yes	83	83
	No	17	17
Awakening the baby while breastfeeding helps in mother and child bonding	Yes	91	91
	No	9	9
Breastfeeding prevents the diseases affecting breast	Yes	79	79
	No	21	21
The mother should not feed the child when she has diarrhea	Yes	54	54
	No	46	46
Stop breastfeeding when you start weaning	Yes	65	65
	No	feeds	35

Table 3: Attitudes of the breastfeeding among respondents.

Variables		n	%
The benefit of breast milk lasts as long as the baby is breastfed	Disagree	6	6
	Not decided	1	1
	Agree	93	93
Formula feeding is more convenient than breastfeeding	Disagree	50	50
	Not decided	27	27
	Agree	23	23
Breastfeeding increases mother-infant bonding	Disagree	6	6
	Not decided	14	14
	Agree	80	80
Breast milk lacks iron	Disagree	12	12
	Not decided	56	56
	Agree	32	32
Formula-fed babies are more likely to be overfed	Disagree	8	8
	Not decided	38	38
	Agree	54	54
Formula feeding is a better choice if the mother goes to work	Disagree	12	12
	Not decided	13	13
	Agree	75	75
A mother who formula feeds misses one of the greatest joys	Disagree	34	34
	Not decided	35	35
	Agree	31	31
Women should not breastfeed in public places	Disagree	16	16
	Not decided	7	7
	Agree	77	77
Breastfed babies are healthier than formula-fed	Disagree	12	12
	Not decided	12	12
	Agree	76	76
Breastfed babies are more likely to be overfed than formula-fed babies	Disagree	70	70
	Not decided	22	22
	Agree	8	8
Fathers feel left out if a mother breastfeeds	Disagree	47	47
	Not decided	17	17
	Agree	36	36
Breast milk is the ideal food for babies	Disagree	5	5
	Not decided	4	4
	Agree	91	91
Breast milk is more easily digested than formula	Disagree	2	2
	Not decided	3	3
	Agree	95	95
The formula is as healthy for an infant as breast milk	Disagree	25	25
	Not decided	18	18
	Agree	57	57
Breastfeeding is more convenient than formula	Disagree	3	3
	Not decided	5	5
	Agree	92	92
Breast milk is cheaper than formula	Disagree	3	3
	Not decided	1	1
	Agree	96	96
A mother who occasionally drinks alcohol should not breastfeed her baby	Disagree	3	3
	Not decided	0	0
	Agree	97	97

Table 4: Practice of breastfeeding among respondents.

Variables		n	%
Did you take advice from a lactation counselor before breastfeeding	Yes	64	64
	No	36	36
Did you give pre lacteal feeds to the infant	Yes	64	64
	No	36	36
What was the type of first feed given to your last-child	Primi	54	54
	Breast milk	26	26
	Honey	12	12
	Sugar water	8	8
When did you start breastfeeding after delivering your last-child	Primi	54	54
	Interval of 1 hour	33	33
	Interval of 2-6 hours	13	13
How frequently do you breastfeed	On-demand	45	45
	At specific intervals	53	53
	At random	2	2
How frequently do you consume galactagogues for improving milk production	Daily	58	58
	Weekly	39	39
	Never	3	3
Does COVID-19 pandemic affect your breastfeeding practices	Yes	97	97
	No	3	3
Covid test	Positive	94	94
	Negative	6	6
Are you doing exclusive breastfeeding?	Yes	53	53
	No	47	47
Have you had any breastfeeding difficulty in your previous delivery	Primi	54	54
	No	46	46

DISCUSSION

This study explored the knowledge, practices, and attitude regarding breastfeeding in mothers who delivered during the COVID-19 pandemic. In the present study, 99% knew about colostrum and 83% knew that colostrum is important for the baby to maintain immunity, which is much higher compared to the study conducted in Wayanad.³ In the present study, 85% of the respondents were aware that exclusive breastfeeding should be done till 6 months of age which is like a study conducted in the Dakshin Kannada district.⁵

Most respondents in the study had good knowledge about breastfeeding and a larger part of them were aware of exclusive breastfeeding. This is similar to a study conducted by Vijayalakshmi et al.⁶

This study showed that in the practice of breastfeeding the pre-lacteal feeding was 64% which is like a study conducted in rural Uttar Pradesh.⁸ But it is much lesser when compared to another study conducted in a tertiary center in Kerala.⁹

Regarding the attitude of mothers about breastfeeding in the present study, it was explored 80% of mothers believed that breastfeeding increases mother-infant bonding, which is similar to another study conducted in

rural areas of the Thrissur district of Kerala.¹⁰ In the present study 66% of mothers said that formula feeding is a better choice when the mother goes back to work and also 91% accepted that breastmilk is the ideal food.¹⁰

In the covid positive mothers in the emotional and mental wellbeing perspective, around 34% were having stress and tension. This was considered in a study in which it stated that breastfeeding decreases postpartum depression and should be continued.¹² In a study conducted in Poland, the pregnant and lactating mothers had stress and anxiety which is much higher compared to the present study.¹³ Another study conducted among Mexican women also explored that stress and anxiety were higher than in the present study.¹⁴ In the present study, it was found that mothers were scared to feed, and feeding was stopped or interrupted which led to increased stress and tension which was also seen in another study conducted in Turkey.¹⁵

In the context of the pandemic, as an impact of COVID-19 on breastfeeding, evidence, and fear of potential risks, the first recommendations of some international scientific societies, advised the isolation of positive covid mothers during childbirth and the puerperium. They also advocate avoiding skin-to-skin contact as well as separating and isolating the newborn.

Mothers strived to get support and had several barriers deriving from lockdown with some stopping breastfeeding before they were ready. Emotional support was an important factor which when was lacking lead to stress and tension in the breastfeeding mothers.

This study shows the significance of the COVID-19 pandemic which created stress and fear among the postnatal mothers, also this study was conducted in Kerala, a state with the highest literacy rates. However, the limitation of the study is that it was conducted in Taluk hospitals which involved lactating mothers hence, the findings of this study may not be representative of the situation of knowledge attitude and practice during covid in the entire community. The experiences of these women can be distributed to women in other states and the details may be relevant for midwives and other health care professionals active with childbearing women and their families.

CONCLUSION

The knowledge was not a determining factor for exclusive breastfeeding as the exclusive breastfeeding rate is still lower compared with the maternal knowledge. COVID-19 has also contributed to the reduction in exclusive breastfeeding due to stress tension, baby separation, and sick mothers. The results of the study show that the coronavirus pandemic has a notable capability for creating stress, tension, and fear, which has a negative emotional effect on mothers.

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