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Original Research Article

Knowledge, attitude and practice regarding breastfeeding among COVID-19 positive mothers delivered in a tertiary care centre

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ABSTRACT

Background: WHO recommends exclusive breastfeeding in COVID-19 mothers. Colostrums not only provides the optimum source of nutrients for the neonate and its first strong protection against infection. Breast feeding lays the foundation for psychological bonding between the baby and the mother. This study assessed breastfeeding knowledge, attitudes, and practices among COVID-19 mothers.
Methods: In this cross-sectional study sixty-three COVID-19 positive mothers who delivered in Kanyakumari Government Medical College and had at least one child aged 2 years or younger were evaluated with an online self-reported knowledge, attitude, and practice questionnaire regarding breastfeeding. The purpose of the study was explained and informed consent was obtained on voluntary basis. The data collected was entered into Microsoft excel, analysed using SPSS version 23.0, using descriptive statistics comprising of frequencies, percentages and, measures of central tendencies.
Results: 74.6% of mothers had good knowledge,63.4% displayed good attitude and 58.7% had good breastfeeding practices. A total of 65.1% of the mothers know the importance of exclusive breastfeeding and 46% gave breastmilk as the first feed.
Conclusions: Breastfeeding knowledge was good among COVID-19 mothers, breastfeeding practice was suboptimal. Mothers should be counselled that the benefits of breastfeeding outweigh the risks for transmission.

Keywords: Breastfeeding, colostrums, COVID-19, Nutrient

INTRODUCTION

According to Lancet series of 2008, breastfeeding promotion alone contributes to a 11.6% reduction in IMR and it reduces the risk of dying from diarrhea and pneumonia.[1] Studies have shown an inverse relationship between exclusive breastfeeding and infant mortality rates in developing countries.[2,3] The World Health Organization recommends exclusive breastfeeding for the first 6 months of life, followed by continued breastfeeding with appropriate complementary foods for up to 2 years and beyond.[4] The WHO, the United Nations International children's Emergency Fund (UNICEF), the Union of European Neonatal & Perinatal Societies (UENPS), and the US centers for disease control and prevention (CDC), recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate or continue to breastfeed. At this point it appears that COVID-19 in infants and children represents a much lower threat to survival and health than other infections that can be prevented by breastfeeding.[4-9] In breast milk from infected mothers, IgA antibodies against SARS-CoV-2 have been detected, which may account for the reduced clinical

impact of the disease in breastfed infants upon future viral exposure.[10] However there are not much studies in Southern India assessing the knowledge, attitude and practice regarding breast feeding among COVID-19 positive mothers.

Aim and objectives

The aim of the study was to assess breastfeeding knowledge, attitudes, and practices among COVID-19 positive women who delivered in Kanyakumari Government medical college. The objective of this study was to assess the percentage of COVID-19 mothers with good knowledge, attitude and practice regarding breastfeeding.

METHODS

Current study was aniInstitution based descriptive cross-sectional study was carried out in Kanyakumari Government medical college from April 2021 to October 2021.

Inclusion criteria

Inclusion criteria for current study were; COVID-19 women who delivered in Kanyakumari Medical College and with infants less than two years at the time of study.

Exclusion criteria

Exclusion criteria for current study were; mothers who lost their babies and ill mothers. The purpose of the study was explained and informed written consent was obtained on voluntary basis.

Sampling technique and sample size

Consecutive method of sampling was utilized in the current study and the sample size taken in current study was 63.

Data collection and data analysis

Data was collected using an online researcher-made, self-reported knowledge, attitude, and practice questionnaire. The questionnaire included close ended questions to assess the knowledge, attitude and practices pertaining to breastfeeding. The questionnaire contained three sections of eight, eight and six questions to collect data regarding breastfeeding knowledge, attitude and practice respectively. For each question a score was assigned carefully after obtaining the response from the mothers. Scoring system is as follows: two for the correct response, one for a partially correct response and zero for a wrong response. The data collected was entered into Microsoft excel, analysed using SPSS version 23.0, using descriptive statistics comprising of frequencies, percentages and, measures of central tendencies.

RESULTS

Out of 63 lactating women maximum women belonged to the age group of 21 years to 30 years (74.6%). The study group contained 11.1% mothers who completed secondary school 27% mothers who completed higher secondary and 36.5% mothers who were graduates.

Table 1: Socio-demographic characteristics of the participants.

Characteristics	N	%
Age of respondents (years)		
<20	12	19
21-30	47	74.6
31-40	4	6.3
>40	-	
Marital status		
Married	62	98.4
Single	-	-
Divorced	-	-
Widow	1	1.6
Educational status		
Not able to read and write	5	7.9
Able to read and write	11	17.5
Secondary school completed	7	11.1
Higher secondary school completed	17	27
Graduate	23	36.5
Occupational status		
Government/Private employee	16	25.4
Housemaid	18	28.6
Daily labourer	7	11.1
House wife	22	34.9
Residency		
Urban	39	61.9
Rural	24	38.1

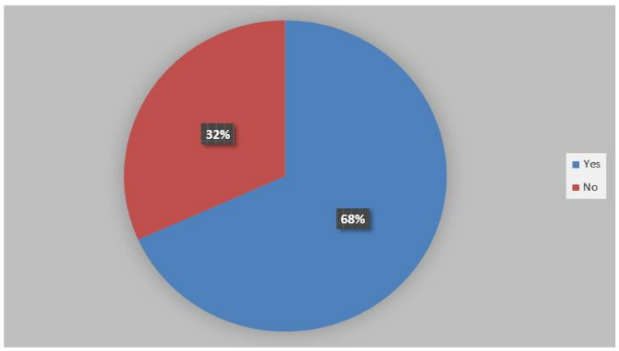

Figure 1: Response of the mothers when asked if COVID-19 mother should breastfeed her baby.

Knowledge of respondents about breastfeeding

A total of 68.3% mothers agreed that COVID-19 positive mother should breastfeed her baby and 84.1% believed that wearing mask is essential during breastfeeding. A total of 65.1% of the mothers know the importance of

exclusive breastfeeding and 66.7% of mothers believed that colostrum is nutritionally beneficial for the child. 65.1% lactating mothers agreed that breastfeeding should be on demand and 23.8% believed in giving pre-lacteal feeds to the baby.65.1% mothers agreed that breastfeeding increases mother child bonding. However only 33.3% agreed that breastfeeding should be continued upto 2 years of age. Only 46% of the lactating mothers gave breastmilk as the first feed while 15.9% gave honey as the first feed 28.6% of mothers started breastfeeding within an hour after delivery and 31.7% started breastfeeding after 24 hours. Exclusive breastfeeding was practiced by only 15.9% of the lactating mothers.

Table 2: Knowledge of respondents towards breastfeeding.

Variables	N	%
Should COVID-19 positive mother breastfeed her baby?		
Yes	43	68.3
No	20	31.7
Is wearing mask essential during breastfeeding?		
Yes	53	84.1
No	10	15.9
Is exclusive breastfeeding important?		
Yes	41	65.1
No	22	34.9
Is colostrum nutritionally beneficial to the child?		
Yes	42	66.7
No	21	33.3
Does exclusive breastfeeding improve immunity?		
Yes	41	65.1
No	22	34.9
Is it important to breastfeed within 1 hour after birth?		
Yes	40	63.5
No	23	36.5
Can exclusive breastfeeding prevent the child from diarrhea?		
Yes	32	50.8
No	31	49.2
Growth pattern of breastfed infants differ from that of formula fed?		
Yes	35	55.6
No	28	44.4

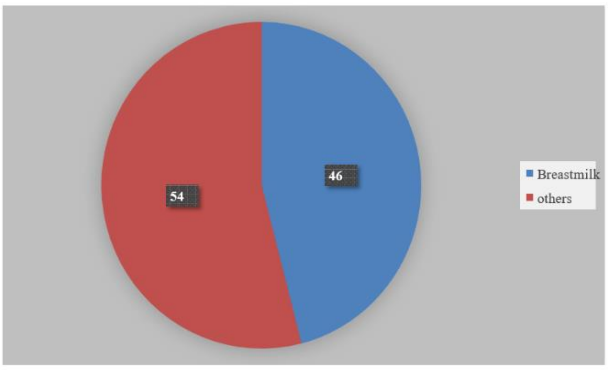

Figure 2: Percentage of COVID-19 mothers who gave breastmilk as first feed.

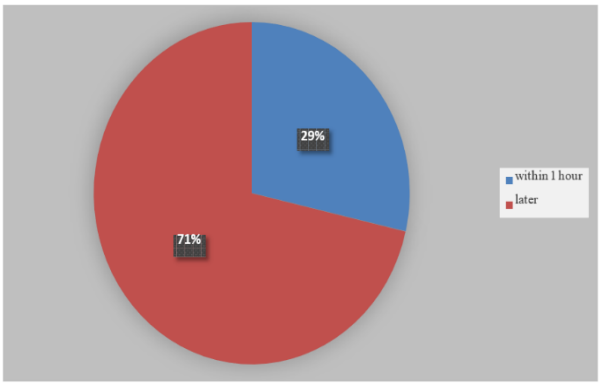

Figure 3: Percentage of COVID-19 mothers who gave breastmilk within one hour of delivery.

Table 3: Attitude of respondents towards breastfeeding.

Variables	N	%
Breastfeeding should be continued up to 2 years?		
Agree	21	33.3
Unsure	18	28.6
Disagree	24	38.1
Do you think breastfeeding should be on demand?		
Agree	41	65.1
Unsure	15	23.8
Disagree	7	11.1
Do you believe in giving pre lacteal feeds to babies?		
Agree	15	23.8
Unsure	15	23.8
Disagree	33	52.4
Is formula feed better digestible than breastmilk?		
Agree	21	33.3
Unsure	25	39.7
Disagree	17	27
Should breastfeeding be stopped when child has		
Agree	16	25.4
Unsure	23	36.5
Disagree	24	38.1
Is formula feeding better than breastfeeding?		
Agree	21	33.3
Unsure	10	15.9
Disagree	32	50.8
Do you think health and hygiene are more		
Agree	37	58.7
Unsure	16	25.4
Disagree	10	15.9
Does breastfeeding increases mother child bonding?		
Agree	41	65.1
Unsure	10	15.9
Disagree	12	19

Table 4: Breastfeeding practices of the respondents.

Variables	N	%
Did you take advice from		
Yes	41	65.1
No	22	34.9
Did you give pre lacteal feeds to the infant?		
Yes	15	23.8
No	48	76.2
What was the type of the first feed given to your last		
Breastmilk	29	46
Honey	10	15.9
Sugar water	3	4.8
Formula feed	21	33.3
When did you start breastfeeding after delivering		
In an interval of one hour	18	28.6
In an interval of 2-6	25	39.7
After 24 hours	20	31.7
How frequently do you breastfeed?		
On demand	32	50.8
At specific intervals	21	33.3
At random	10	15.9
Are you practicing exclusive breastfeeding?		
Yes	10	15.9
No	53	84.1

DISCUSSION

Good knowledge, attitude and practice regarding breastfeeding is very essential among mothers for bringing down the under 5 mortality rate in developing countries. There are several studies regarding knowledge, attitude and practice regarding breastfeeding in Southern India.

However, COVID-19 has been a recent threat for exclusive breastfeeding and hence this study was conducted to focus on this key issue. In this study 74.6% of mothers had good knowledge, This is higher to 70.8% of mothers with good knowledge as reported in a study conducted in Thrissur by Krishnendu et al and 69.8% in a study conducted in Tamil Nadu in pre-COVID era.66.7% of mothers had knowledge about the importance of feeding colostrum which is higher when compared to 54.7% in northern districts of Tamil Nadu.[10-12]

Cultural variation and variation in healthcare delivery system may explain the above noticed difference. In this study 63.4% of the mothers displayed good attitude.65.1% of the mothers in this study agreed that breastfeeding increases mother and child bond which is higher when compared to 48.6% in a study done in East Africa.[13] 58.7% of the mothers in this study had good breastfeeding practices.15.9% of COVID-19 positive mothers practiced exclusive breastfeeding which is much lower than 89% in pre-COVID time in Rajasthan.[14] While 76% mothers had started breastfeeding within a day in a study conducted in Saudi Arabia only 68.3% of COVID-19 positive mothers in our study started to breastfeed their babies within a day.[15]

Limitations

The present study has certain limitations. Sample size studied is not sufficient enough to generalize the result to the entire population. The study includes only mothers attending Kanyakumari Government Medical College, Tamil Nadu. Therefore, the results may not be representative of the whole population. However, despite of these limitations, the present study findings may be helpful to the clinicians and nursing professionals in designing the interventions to promote breast feeding practices.

Concerns among COVID-19 mothers regarding transmission of SARS-CoV-2 virus to their infant or young child through breastfeeding would have probably led to a decline in good breastfeeding practices among mothers in the period of COVID pandemic.

CONCLUSION

As per our study though breastfeeding knowledge was generally good among COVID-19 mothers, breastfeeding practice was still suboptimal. Mothers should be counselled that the benefits of breastfeeding substantially outweigh the potential risks for transmission and should be encouraged to initiate or continue to breastfeed. Health care workers who work in the areas of maternal and child health should reassure and encourage COVID-19 positive postnatal mothers to exclusive breastfeed their babies till six months of age.

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