

# Effectiveness of Self Instructional Module on Knowledge Regarding Breastfeeding Safety During COVID-19 Among Postnatal Mothers in a Selected Tertiary Care Hospital, Coimbatore

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**Abstract: Background:** The outbreak of COVID-19 is a stressful time for everyone. This is true for mothers who are breastfeeding and concerned about their baby's health. According to WHO, Breastfeeding is the most effective way to ensure child health and survival by directly transferring antibodies from the mother. It acts as a safety net against deadly disease like COVID 19.

**Purpose:** This research was carried out to assess the effectiveness of Self Instructional Module on Knowledge regarding Breastfeeding safety during COVID 19 among postnatal mothers.

**Method:** The research design adopted was pre experimental one group pre-test post-test design. Convenient sampling technique was used. Pre-test was administered through Google forms. The research participants were briefed about Breastfeeding safety during COVID 19 Pandemic through Zoom meet and a Self-Instructional Module (SIM) was administered virtually through whatsapp group. Post test was conducted after a week by google forms. **Results:** Results were analyzed using paired 't' test and it revealed that mean and standard deviation of Pretest was  $3.87 \pm 0.68$  and Posttest was  $8.27 \pm 0.98$  with 't' value 26.94 which is significant at the level of  $p < 0.001$ .

**Conclusion:** It concluded that SIM was effective in enhancing the knowledge on Breastfeeding safety during COVID 19 among postnatal mothers.

**Keywords:** Breast feeding, COVID-19, Effectiveness, Postnatal mothers, Self-Instructional module.

## 1. Introduction

Living in the era of COVID-19 puts antenatal and postnatal mothers under threat of transmission of COVID from mother to baby. The outbreak of COVID-19 is a stressful time for everyone. This is true for mothers who are breastfeeding and concerned about their baby's health. Breast feeding is essence of life which provides vital source for the new born baby. Breastfeeding is one of the most effective ways to ensure child health and survival by directly transferring antibodies from the mother. It acts as a safety net against deadly disease like COVID-19. Based on research evidence, WHO states that when

comparing the risk benefit ratio of breastfeeding for confirmed or suspected COVID 19 mothers, the benefits outweighs the risk. Hence WHO recommends early initiation and continuation of breastfeeding of infants amidst this COVID scenario and it is also applicable to confirmed or suspected COVID 19 cases. It also advices antenatal and postnatal mothers to be vaccinated for COVID. Responsibility to fill the knowledge gap of general public on Breastfeeding Safety during COVID 19 is entrusted on health care Professionals. To emphasis the importance of knowledge regarding breastfeeding safety during pandemic, this research was carried out to assess the effectiveness of Self Instructional Module on Knowledge regarding Breastfeeding safety during COVID 19 among postnatal mothers.

Keeping in mind of Covid Appropriate Behavior (CAB), the study was conducted through virtual platform and Self Instructional Module (SIM) was distributed through newer edutech method directly to their mobile. So, it was very helpful for the research participants to refer whenever they had doubts and gained in-depth knowledge regarding breastfeeding safety during pandemic.

## 2. Statement of the Problem

A study to assess the Effectiveness of Self Instructional Module on Knowledge regarding Breastfeeding safety during COVID 19 among mothers in a selected tertiary care Hospital, Coimbatore.

## 3. Objectives

- To assess the level of knowledge regarding Breastfeeding safety during COVID 19 among Postnatal mothers.
- To determine the effectiveness of Self Instructional Module on knowledge regarding Breastfeeding safety during COVID 19 among Postnatal mothers.
- To associate the level of knowledge regarding breast feeding

safety during COVID 19 with the selected demographic variables among postnatal mothers.

*Assumption:*

- Post-natal mother may have some knowledge regarding breast feeding safety during COVID-19.
- Self-Instructional Module regarding breast feeding safety during COVID 19 would improve knowledge.

*Inclusion Criteria:*

Postnatal mothers

- Who got discharged from Postnatal ward.
- Who were not affected with COVID 19.

*Exclusion Criteria:*

Postnatal mothers

- Who didn't have android phone.

**4. Methodology**

The research design adapted to this study was Pre-experimental one group pre-test post-test design. Totally 30 postnatal mothers were selected by Convenient sampling method. Sample size was calculated by using degree of precision method. After obtaining formal permission and ethical clearance, medical records were analyzed and research participants were selected based on inclusion criteria. Consent was obtained from the postnatal mothers by phone call and Google forms. Data was collected for 4 weeks during July-August 2021. Demographic variables were retrieved through medical records and further details collected through telephonic conversation and google forms. Pre-test was administered through Google forms. The research participants were briefed about Breastfeeding safety during COVID 19 Pandemic through Zoom meet and a Self-Instructional Module (SIM) was administered virtually through whatsapp. After a week, Post test was conducted through Google forms. No ethical issues faced during data collection period. The collected data was analyzed by using descriptive and inferential statistics. Frequency distribution, mean and standard deviation was used to describe the level of knowledge before and after administration of SIM. Paired 't' test was used to find the significant differences between the pre-test and post-test level of knowledge regarding Breastfeeding safety during COVID 19 among postnatal mothers. Chi square test was used to find the association between pre-test level of knowledge with the selected demographic variables among postnatal mothers.

**5. Results**

*A. Demographic Variables of Postnatal Mothers*

Table 1 states that, most of the participants 16 (53.3%) were from the age group of 24-29 years, 10 (33.3%) were graduate, 23 (76.7%) were unemployed, 15 (50%) were antenatal and 15 (50%) belonged to postnatal periods and 18 (60%) had no previous knowledge regarding breastfeeding safety during COVID-19.

Table 2 portrays the comparison of pretest and posttest level of knowledge among the research participants using paired 't' test. In pretest, the mean and standard deviation was 3.87 and 0.68, where as in posttest mean and standard deviation was 8.27

and 0.98. The calculated Value 26.94 was greater than the table value at P<0.001. It shows that, the Self Instructional Module regarding Breastfeeding safety during COVID 19 was effective in improving the knowledge among postnatal mothers.

Table 1  
Frequency and percentage distribution of research participants according to demographic variables

S. No.	Demographic variables	f	%
<b>1.</b>	<b>Age</b>		
a)	18-23 years	9	30
b)	24-29 years	16	53.3
c)	30-35 years	5	16.7
<b>2.</b>	<b>Education</b>		
a)	High school	9	30
b)	Higher secondary	8	26.7
c)	Graduates	10	33.3
d)	Post graduates	3	10
<b>3.</b>	<b>Occupation</b>		
a)	Unemployed	23	76.7
b)	Employed	7	23.3
<b>4.</b>	<b>Previous knowledge regarding breastfeeding</b>		
a)	Yes	12	40
b)	No	18	60

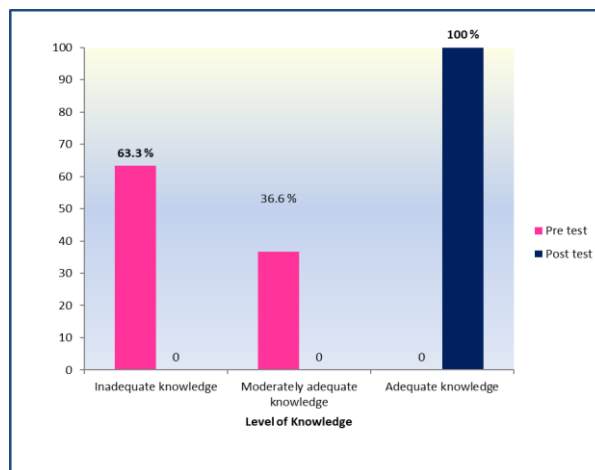


Fig. 1. Percentage distribution of research participants based on level of knowledge regarding breastfeeding safety during COVID-19 among postnatal mothers

Table 2  
Comparison of Mean and Standard Deviation of per and post-test level of knowledge regarding Breastfeeding safety during COVID-19 among postnatal mothers (n=30)

Groups	Mean ± Standard deviation	Paired 't' value
Pre test	3.87 ± 0.68	t=26.94***
Post test	8.27 ± 0.98	P=0.001
		S

\*\*\*p<0.001, S- significant, NS- Not significant

Table 3 depicts that there was an association between selected demographic variables and previous knowledge regarding breastfeeding safety during COVID-19.

**6. Discussion**

The study findings revealed that pretest mean and standard deviation score was 3.87 and 0.68, where as in posttest mean and standard deviation score was 8.27 and 0.98. The calculated 't' value 26.94 was greater than the table value at P<0.001. It

Table 3  
Association between pre-test level of knowledge regarding breastfeeding safety during COVID-19 with the selected demographic variables among postnatal mothers

Demographic Variables	Level of Knowledge				$\chi^2$ Value	Tabulated Value
	Inadequate Knowledge		Moderately Adequate Knowledge			
	f	%	f	%		
<b>Age in Years</b>						
18-23	7	23	2	7	1.1782	5.99
24-29	9	30	7	23	NS	
30-35	3	10	2	7		
<b>Education</b>						
High School	8	27	1	3	7.799	7.81
Higher Secondary	6	20	2	7	NS	
Graduates	3	10	7	23		
Post graduates	2	7	1	3		
<b>Occupation</b>						
Unemployed	16	54	7	23	1.6485	3.84
Employed	3	10	4	13	NS	
<b>Previous knowledge regarding breastfeeding safety during covid-19</b>						
Yes	5	17	7	23	4.0431	3.84
No	14	47	4	13	S*	

\*p<0.05, S- significant, NS- Not significant

was proven that, the Self Instructional Module regarding Breastfeeding safety during COVID 19 was effective in improving the knowledge among postnatal mothers. This study was similar to another study on experience of breastfeeding during COVID-19 (Lesson for future practical & emotional support) was conducted in Swansea University, United Kingdom, 2020. Researcher conducted an online survey with 1219 breastfeeding mothers in the UK with a baby 0-12 months old infants to understand the impact of the pandemic upon breastfeeding duration, experiences & support. The results highlighted that, 27% of the mother with lack of knowledge & support, were more likely to find the impact of lockdown challenging and stopped breastfeeding. The findings are vital in understanding how we now support the mothers and to make sure all are supported & educated if similar events arise.

## 7. Conclusion

Breastfeeding acts as a safety shield against COVID-19. Sensitizing the pregnant and lactating mothers on importance of breastfeeding and safety measures to be followed while breastfeeding to improve the breastfeeding rates during this COVID holocaust. The research findings concluded that, SIM

was effective in enhancing the knowledge on Breastfeeding safety during COVID-19 among postnatal mothers.

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