

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20253084>

Original Research Article

Assessment of breastfeeding knowledge, attitudes and practices among postpartum women at a tertiary healthcare setting in Ahmedabad, Gujarat: implications for maternal and child health

Om Shah¹, Munjal Pandya^{2*}, Ansh Maheshwari¹, Dhrumi Prajapati², Medhavi Sharma³

¹Narendra Modi Medical College, Ahmedabad, Gujarat, India

²Department of Obstetrics and Gynecology, Narendra Modi Medical College, Ahmedabad, Gujarat, India

³Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, Rajkot, Gujarat, India

Received: 25 July 2025

Accepted: 28 August 2025

*Correspondence:

Dr. Munjal Pandya,

E-mail: munjal171184@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Breastfeeding is essential for a child's overall health and development. Breast milk provides all the vital nutrients needed for growth and well-being while offering immunity against various infectious and non-infectious diseases. Ideal breastfeeding practices include early initiation, exclusive breastfeeding for the first six months and continued breastfeeding for up to two years alongside complementary foods.

Methods: Women getting delivered at a tertiary care teaching hospital were surveyed and their responses were recorded on a detailed questionnaire. Appropriate analysis was performed to assess the awareness of breastfeeding.

Results: The sample of this study comprised of 150 mothers out of which maximum (60.67%) were in the age group of 18-26 years with mean age 26.2 years and standard deviation of 5.68. This study found that 85.33% of the mothers were aware of the importance of breastfeeding while only 56% of mothers were aware of the benefits of colostrum. A small proportion of mothers, specifically 6.67%, expressed fear that breastfeeding might alter their body image. Only 56.6% mothers initiated breastfeeding within 1 hour of delivery while 92.66% mothers fed colostrum to their newborns.

Conclusions: This study revealed a general awareness of breastfeeding among participants but limited knowledge regarding benefits of colostrum. Early weaning is still being practiced and timely initiation of breastfeeding within the first hour after birth was not universally adhered to.

Keywords: Breastfeeding knowledge, Breastfeeding attitude, Breastfeeding practice, Gujarat, Mother and child health

INTRODUCTION

Breastfeeding is fundamental to child survival and health, particularly in the early stages of life, as it offers vital, irreplaceable nutrition crucial for a child's growth and development. It also acts as a child's first form of immunization, safeguarding them against common childhood illnesses. Breast milk supports sensory and cognitive development and is the unmatched source of optimal nutrition for the healthy growth and development of infants.¹ Colostrum, the thick yellowish milk produced by mothers right after birth, provides the perfect nourishment for a newborn. Rich in nutrients and

antibodies, it serves as the baby's first vaccine.² It is widely recognized that breastfeeding helps reduce the risk of various infections and diseases in children, such as ear infections, asthma, lower respiratory infections, diarrhoea, vomiting, childhood obesity and sudden infant death syndrome.³ Breastfeeding also offers significant benefits for mothers. It accelerates recovery after childbirth, reduces the risk of certain breast and ovarian cancers, lowers the chances of developing type 2 diabetes and helps with birth spacing.² In addition to individual health benefits, breastfeeding has broader public health implications. It reduces healthcare costs by decreasing the incidence of childhood illnesses and their associated

treatments. Communities benefit from the long-term health and cognitive advantages that breastfed children often exhibit, leading to improved educational outcomes and productivity in later life. The American Academy of Paediatrics (AAP) advises exclusive breastfeeding for the first 6 months, followed by continued breastfeeding for at least 12 months, to extend it as long as both the mother and baby wish.⁴ The World Health Organization (WHO) recommends breastfeeding for up to 2 years or longer.⁵ Based on the National Family Health Survey (NFHS-5, 2019-21) conducted by Ministry of Health and Family Welfare (MoHFW), Government of India, out of 10,163 women surveyed in Gujarat-Urban population, only 34.39% of children under age 3 years were breastfed within one hour of birth and 70.26 % of children under age 6 months were exclusively breastfed.⁶ In 1991, WHO and UNICEF launched the Baby-Friendly Hospital Initiative (BFHI) to promote and support breastfeeding, with the goal of making all maternity facilities, whether independent or hospital-based, centers of breastfeeding support.⁷

The Ministry of Health and Family Welfare, Government of India, introduced Mothers Absolute Affection (MAA) programme in 2016 under the National Health Mission that primarily aimed to create a supportive atmosphere for breastfeeding by conducting awareness programs aimed at pregnant and lactating mothers, their families and the wider community. These initiatives were designed to foster optimal breastfeeding practices, which are crucial for the survival and development of children.⁸ Since breastfeeding is culturally accepted, it appears to be an effective way to enhance the health and nutrition of newborns, provided mothers and families receive proper education. Taking this into consideration, the aim of this study was to assess the awareness of breastfeeding among mothers getting delivered at a tertiary care teaching hospital.

METHODS

This questionnaire based, observational, cross-sectional study was conducted at a tertiary care teaching hospital in Ahmedabad, Gujarat during a period of one month from 1st April 2025 to 30th April 2025. The study included women over 18 years who got delivered at Sheth LG Hospital, Ahmedabad both vaginally and by caesarean section; and mothers whose newborns are healthy and have initiated breastfeeding. The study excluded mothers who were not willing to participate.

Since, the study was conducted over a period of 1 month. So, considering the average number of deliveries per day to be 9-12 and expecting 50 percent compliance, the sample size derived was 150.

Data collection

The participants were asked to answer a detailed questionnaire which consisted of a total of 28 questions

that surveyed about their sociodemographic profile (8 questions); obstetric history (3 questions); breastfeeding knowledge (4 questions); breastfeeding attitude (3 questions) and breastfeeding practice (10 questions). Questions focused on evaluating breastfeeding knowledge included awareness of the importance of breastfeeding, breastfeeding knowledge instilled by, awareness of the benefits of colostrum, awareness of Mother's Absolute Affection (MAA) programme initiated by Government of India. Questions focused on evaluating breastfeeding attitude include fear of body image getting altered while breastfeeding, is she concerned that any medication might negatively impact breastfeeding, intention to breastfeed future children.

Questions focused on evaluating breastfeeding practice include past breastfeeding experience, whether they have been explained the correct method of breastfeeding, was colostrum given to the infant, whether additional support in the form of top feeds was given, average number of feedings per day, duration of breastfeeding in each session, time of breastfeeding initiation after delivery, duration of exclusive breastfeeding in previous pregnancy, till what age are they planning to exclusively breastfeed in current pregnancy, till what age are they planning to breastfeed, whether the infant is able to attach and suck effectively. The data was analyzed using Microsoft Excel.

Ethical consideration

Approval of the institutional review board was taken prior to starting the study. Participants were explained the purpose of study and were asked to sign the informed consent form in their local languages assuring confidentiality of their data.

RESULTS

As depicted in figure 1, majority i.e., 60.66% (91/150) of the participants were in the age group of 18-26 years while 32% (48/150) and 7.33% (11/150) were in the age group 27-35 years and 36-44 years respectively. The mean age of the sample was found out to be 26.2 years with standard deviation of 5.68.

Table 1 assesses the knowledge of breastfeeding among the participants. Out of the 150 participants, 85.33% (128/150) were aware of the importance of breastfeeding while 14.66% (22/150) were still unaware of its significance. Of the 128 participating mothers who were aware of the importance of breastfeeding, the knowledge of breastfeeding was provided by medical staff in 39.06% (50/128), by relatives in 31.25% (40/150) and it was autodidactic in 29.68% (38/128). Though a significant percentage of participants (85%) were aware of the importance of breastfeeding, the benefits of colostrum were known to only 44% (66/150) while 56% (84/150) of mothers were still clueless of its perks. The MAA initiative by Government of India has reached 6% (9/150) participants while an overwhelming 94% (141/150)

mothers were not familiar with the programme. Table 2 depicts the attitude of breastfeeding in the sample population. Among all participants 6.66% (10/150) had a fear of their body image getting altered due to breastfeeding while 4% (6/150) worried that medications might adversely affect breastfeeding. An astounding 100% (150/150) of the participating mothers were willing to breastfeed in future pregnancies. Lastly Table 3 and 4 describes the practice of breastfeeding among the participants. Of all multipara participants a remarkable 100% (81/81) mothers had breastfed in their previous pregnancy. The correct method of breastfeeding was explained to 80% (120/150) of the participants and newborns of 92.66% (139/150) mothers were shielded by colostrum while 7.33% (11/150) mothers discarded

colostrum. Top feeds were provided to infants of 42.66% (64/150) mothers. The average number of feedings were more than 8 times per day in 66% (99/150) of participants while 34% (51/150) mothers fed their newborns for less than 8 times per day. The time of breastfeeding initiation was less than 1 hour after delivery in 56.6% (85/150) and more than 1 hour after delivery in 43.3% (65/150) mothers. Among all participants, 54.6% (82/150) were planning to exclusively breastfeed till 6 months while 45.3% (68/150) mothers were willing to introduce complimentary feeds before 6 months. Mothers willing to continue breastfeeding till 1 year constituted 13.33% (20/150) while 50.66% (76/150) were willing to breastfeed till 2 years and 36% (54/150) mothers wished to breastfeed for as long as the infant demanded.

Table 1: Assessment of breastfeeding knowledge.

Variables	Importance of breastfeeding (n=150)		Awareness of benefits of colostrum (n=150)		Awareness of MAA programme (n=150)	
	Yes (n=128) (85.33%)	No (n=22) (14.67%)	Yes (n=66) (44%)	No (n=84) (56%)	Yes (n=9) (6%)	No (n=141) (94%)
Sociodemographic profile						
Age group (in years) (n=150)						
18-26 (n=91) (60.67%)	72 (79.12)	19 (20.88)	34 (37.36)	57 (62.64%)	0 (0%)	91 (100)
27-35 (n=48) (32%)	45 (93.75)	3 (6.25)	27 (56.25)	21 (43.75%)	8 (16.67%)	40 (83.33)
36-44 (n=11) (7.33%)	11 (100)	0 (0)	5 (45.45)	6 (54.55%)	1 (9.09%)	10 (90.91)
>45 (n=0) (0%)	0 (0)	0 (0)	0 (0)	0 (0%)	0 (0%)	0 (0)
Religion (n=150)						
Hindu (n=79) (52.67%)	74 (93.67)	5 (6.33)	39 (49.37)	40 (50.63%)	7 (8.86%)	72 (91.14)
Muslim (n=68) (45.33%)	51 (75)	17 (25)	25 (36.76)	43 (63.24%)	0 (0%)	68 (100)
Christian (n=3) (2%)	3 (100)	0 (0)	2 (66.67)	1 (33.33%)	2 (66.67%)	1 (33.33)
Level of education (n=150)						
Illiterate (n=4) (2.67%)	0 (0)	4 (100)	0 (0)	4 (100%)	0 (0%)	4 (100)
Primary (n=29) (19.33%)	19 (65.51)	10 (34.48)	5 (17.24)	24 (82.76%)	0 (0%)	29 (100)
Secondary (n=42) (28%)	39 (92.86)	3 (7.14)	11 (26.19)	31 (73.81%)	0 (0%)	42 (100)
Higher secondary (n=61) (40.67%)	56 (91.8)	5 (8.2)	36 (59.02)	25 (40.98%)	4 (6.56%)	57 (93.44)
Graduate (n=12) (8%)	12 (100)	0 (0)	12 (100)	0 (0%)	4 (33.33%)	8 (66.67)
Post-graduate (n=2) (1.33%)	2 (100)	0 (0)	2 (100)	0 (0%)	1 (50%)	1 (50)
Employment status (n=150)						
Employed (n=28) (18.67%)	27 (96.43)	1 (3.57)	26 (92.86)	2 (7.14)	9 (32.14)	19 (67.86)
Not employed (n=122) (81.33%)	101 (82.78)	21 (17.21)	40 (32.79)	82 (67.21)	0 (0)	122 (100)
Employment sector (n=28)						
Public sector (n=13) (46.43%)	13 (100)	0 (0)	12 (92.31)	1 (7.69)	4 (30.77)	9 (69.23)
Private sector (n=15) (53.57%)	14 (93.33)	1 (6.67)	14 (93.33)	1 (6.67)	5 (33.33)	10 (66.67)
Family type (n=150)						
Nuclear (n=76) (50.67%)	68 (89.48)	8 (10.52)	42 (55.26)	34 (44.74)	9 (11.84)	67 (88.16)
Joint (n=74) (49.33%)	60 (81.08)	14 (18.92)	24 (32.43)	50 (67.57)	0 (0)	74 (100)
Monthly per capita income (n=150)						
<₹ 1500 (n=32) (21.33%)	24 (75)	8 (25)	11 (34.38)	21 (65.63)	0 (0)	32 (100)
₹ 1501-₹ 3000 (n=70) (46.67%)	56 (80)	14 (20)	17 (24.29)	53 (75.71)	4 (5.71)	66 (94.29)
₹ 3001-₹ 4500 (n=32) (21.33%)	32 (100)	0 (0%)	26 (81.25)	6 (18.75)	4 (12.5)	28 (87.5)
>₹ 4500 (n=16) (10.67%)	16 (100)	0 (0%)	12 (75)	4 (25)	1 (6.25)	15 (93.75)

Continued.

Variables	Importance of breastfeeding (n=150)		Awareness of benefits of colostrum (n=150)		Awareness of MAA programme (n=150)	
	Yes (n=128) (85.33%)	No (n=22) (14.67%)	Yes (n=66) (44%)	No (n=84) (56%)	Yes (n=9) (6%)	No (n=141) (94%)
Obstetric history						
Mode of delivery (n=150)						
Vaginal/normal delivery (n=93) (62%)	77 (82.8)	16 (17.2)	45 (48.39)	48 (51.61)	5 (5.38)	88 (94.62)
Caesarean section (n=57) (38%)	51 (89.47)	6 (10.53)	21 (36.84)	36 (63.16)	4 (7.02)	53 (92.98)
Gestational age at birth (n=150)						
Pre-term (n=41) (27.33%)	34 (82.92)	7 (17.08)	13 (31.71)	28 (68.29)	4 (9.76)	37 (90.24)
Term (n=109) (72.67%)	94 (86.24)	15 (13.76)	53 (48.62)	56 (51.38)	5 (4.59)	104 (95.41)
Parity (n=150)						
Primipara (n=69) (46%)	50 (72.46)	19 (27.54)	27 (39.13)	42 (60.87)	0 (0)	69 (100)
Multipara (n=81) (54%)	78 (96.3)	3 (3.7)	39 (48.15)	42 (51.85)	9 (11.11)	72 (88.89)

Table 2: Assessment of breastfeeding attitude.

Variables	Fear of body image getting altered (n=150)		Worried about impact of medication (n=150)		Intention to breastfeed in future children (n=150)	
	Yes (n=10) (6.67%)	No (n=140) (93.33%)	Yes (n=6) (4%)	No (n=144) (96%)	Yes (n=150) (100%)	No (n=0) (0%)
Sociodemographic profile						
Age group (years) (n=150)						
18-26 (n=91) (60.67%)	8 (8.79)	83 (91.21)	5 (5.49)	86 (94.51)	91 (100)	0 (0)
27-35 (n=48) (32%)	2 (4.17)	46 (95.83)	1 (2.08)	47 (97.92)	48 (100)	0 (0)
36-44 (n=11) (7.33%)	0 (0)	11 (100)	0 (0)	11 (100)	11 (100)	0 (0)
>45 (n=0) (0%)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Religion (n=150)						
Hindu (n=79) (52.67%)	4 (5.06)	75 (94.94)	4 (5.06)	75 (94.94)	79 (100)	0 (0)
Muslim (n=68) (45.33%)	6 (8.82)	62 (91.18)	2 (2.94)	66 (97.06)	68 (100)	0 (0)
Christian (n=3) (2%)	0 (0)	3 (100)	0 (0)	3 (100)	3 (100)	0 (0)
Level of Education (n=150)						
Illiterate (n=4) (2.67%)	3 (75)	1 (25)	1 (25)	3 (75)	4 (100)	0 (0)
Primary (n=29) (19.33%)	6 (20.69)	23 (79.31)	2 (6.9)	27 (93.1)	29 (100)	0 (0)
Secondary (n=42) (28%)	1 (2.38)	41 (97.62)	1 (2.38)	41 (97.62)	42 (100)	0 (0)
Higher Secondary (n=61) (40.67%)	0 (0)	61 (100)	2 (3.28)	59 (96.72)	61 (100)	0 (0)
Graduate (n=12) (8%)	0 (0)	12 (100)	0 (0)	12 (100)	12 (100)	0 (0)
Post-Graduate (n=2) (1.33%)	0 (0)	2 (100)	0 (0)	2 (100)	2 (100)	0 (0)
Employment Status (n=150)						
Employed (n=28) (18.67%)	0 (0)	28 (100)	0 (0)	28 (100)	28 (100)	0 (0)
Not Employed (n=122) (81.33%)	10 (8.2)	112 (91.8)	6 (4.92)	116 (95.08)	122 (100)	0 (0)
Employment Sector (n=28)						
Public sector (n=13) (46.43%)	0 (0)	13 (100)	0 (0)	13 (100)	13 (100)	0 (0)
Private sector (n=15) (53.57%)	0 (0)	15 (100)	0 (0)	15 (100)	15 (100)	0 (0)
Family type (n=150)						
Nuclear (n=76) (50.67%)	4 (5.26)	72 (94.74)	0 (0)	76 (100)	76 (100)	0 (0)
Joint (n=74) (49.33%)	6 (8.11)	68 (91.89)	6 (8.11)	68 (91.89)	74 (100)	0 (0)
Monthly per capita income (n=150)						
<₹ 1500 (n=32) (21.33%)	4 (12.5)	28 (87.5)	0 (0)	32 (100)	32 (100)	0 (0)
₹ 1501-₹ 3000 (n=70) (46.67%)	6 (8.57)	64 (91.43)	4 (5.71)	66 (94.29)	70 (100)	0 (0)
₹ 3001-₹ 4500 (n=32) (21.33%)	0 (0)	32 (100)	2 (6.25)	30 (93.75)	32 (100)	0 (0)
>₹ 4500 (n=16) (10.67%)	0 (0)	16 (100)	0 (0)	16 (100)	16 (100)	0 (0)

Continued.

Variables	Fear of body image getting altered (n=150)		Worried about impact of medication (n=150)		Intention to breastfeed in future children (n=150)	
	Yes (n=10) (6.67%)	No (n=140) (93.33%)	Yes (n=6) (4%)	No (n=144) (96%)	Yes (n=150) (100%)	No (n=0) (0%)
Obstetric history						
Mode of Delivery (n=150)						
Vaginal/Normal Delivery (n=93) (62%)	5 (5.38)	88 (94.62)	2 (2.15)	91 (97.85)	93 (100)	0 (0)
Caesarean section (n=57) (38%)	5 (8.77)	52 (91.23)	4 (7.02)	53 (92.98)	57 (100)	0 (0)
Gestational age at birth (n=150)						
Pre-term (n=41) (27.33%)	4 (9.76)	37 (90.24)	1 (2.44)	40 (97.56)	41 (100)	0 (0)
Term (n=109) (72.67%)	6 (5.5)	103 (94.5)	5 (4.59)	104 (95.41)	109 (100)	0 (0)
Parity (n=150)						
Primipara (n=69) (46%)	7 (10.14)	62 (89.86)	1 (1.45)	68 (98.55)	69 (100)	0 (0)
Multipara (n=81) (54%)	3 (3.70)	78 (96.30)	5 (6.17)	76 (93.83)	81 (100)	0 (0)

Table 3: Assessment of breastfeeding practice.

Variables	Correct method explained (n=150)		Colostrum given (n=150)		Top-feeds given (n=150)	
	Yes (n=120) (80%)	No (n=30) (20%)	Yes (n=139) (92.67%)	No (n=11) (7.33%)	Yes (n=64) (42.67%)	No (n=86) (57.33%)
Sociodemographic profile						
Age group (years) (n = 150)						
18-26 (n=91) (60.67%)	68 (74.72)	23 (25.27)	86 (94.5)	5 (5.49)	46 (50.54)	45 (49.45)
27-35 (n=48) (32%)	41 (85.41)	7 (14.58)	42 (87.5)	6 (12.5)	12 (25)	36 (75)
36-44 (n=11) (7.33%)	11 (100)	0 (0)	11 (100)	0 (0)	6 (54.54)	5 (45.45)
>45 (n=0) (0%)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Religion (n=150)						
Hindu (n=79) (52.67%)	63 (79.74)	16 (20.25)	74 (93.67)	5 (6.32)	33 (41.77)	46 (58.22)
Muslim (n=68) (45.33%)	54 (79.41)	14 (20.58)	62 (91.17)	6 (8.82)	31 (45.58)	37 (54.41)
Christian (n=3) (2%)	3 (100)	0 (0)	3 (100)	0 (0)	0 (0)	3 (100)
Level of Education (n=150)						
Illiterate (n=4) (2.67%)	3 (75)	1 (25)	3 (75)	1 (25)	1 (25)	3 (75)
Primary (n=29) (19.33%)	29 (100)	0 (0)	25 (86.2)	4 (13.79)	14 (48.27)	15 (51.72)
Secondary (n=42) (28%)	23 (54.76)	19 (45.23)	42 (100)	0 (0)	20 (47.61)	22 (52.38)
Higher Secondary (n=61) (40.67%)	51 (83.6)	10 (16.39)	55 (90.16)	6 (9.83)	25 (40.98)	36 (59.01)
Graduate (n=12) 8%)	12 (100)	0 (0)	12 (100)	0 (0)	4 (33.33)	8 (66.66)
Post-Graduate (n=2) (1.33%)	2 (100)	0 (0)	2 (100)	0 (0)	0 (0)	2 (100)
Employment Status (n=150)						
Employed (n=28) (18.67%)	28 (100)	0 (0)	28 (100)	0 (0)	7 (25)	21 (75)
Not Employed (n=122) (81.33%)	92 (75.4)	30 (24.59)	111 (90.98)	11 (9.01)	57 (46.72)	65 (53.27)
Employment Sector (n=28)						
Public sector (n=13) (46.43%)	13 (100)	0 (0)	13 (100)	0 (0)	5 (38.46)	8 (61.53)
Private sector (n=15) (53.57%)	15 (100)	0 (0)	15 (100)	0 (0)	2 (13.33)	13 (86.66)
Family type (n=150)						
Nuclear (n=76) (50.67%)	60 (78.94)	16 (21.05)	69 (90.78)	7 (9.21)	24 (31.57)	52 (68.42)
Joint (n=74) (49.33%)	60 (81.08)	14 (18.91)	70 (94.59)	4 (5.4)	40 (54.05)	34 (45.94)
Monthly per capita income (n=150)						
<₹ 1500 (n=32) (21.33%)	29 (90.62)	3 (9.37)	29 (90.62)	3 (9.37)	14 (43.75)	18 (56.25)
₹ 1501-₹ 3000 (n=70) (46.67%)	48 (68.57)	22 (31.42)	63 (90)	7 (10)	27 (38.57)	43 (61.42)
₹ 3001-₹ 4500 (n=32) (21.33%)	31 (96.87)	1 (3.12)	32 (100)	0 (0)	20 (62.5)	12 (37.5)
>₹ 4500 (n=16) (10.67%)	12 (75)	4 (25)	15 (93.75)	1 (6.25)	3 (18.75)	13 (81.25)

Continued.

Variables	Correct method explained (n=150)		Colostrum given (n=150)		Top-feeds given (n=150)	
	Yes (n=120) (80%)	No (n=30) (20%)	Yes (n=139) (92.67%)	No (n=11) (7.33%)	Yes (n=64) (42.67%)	No (n=86) (57.33%)
Obstetric history						
Mode of Delivery (n=150)						
Vaginal/Normal Delivery (n=93) (62%)	80 (86.02)	13 (13.97)	85 (91.39)	8 (8.6)	27 (29.03)	66 (70.96)
Caesarean section (n=57) (38%)	40 (70.17)	17 (29.82)	54 (94.73)	3 (5.26)	37 (64.91)	20 (35.08)
Gestational age at birth (n=150)						
Pre-term (n=41) (27.33%)	29 (70.73)	12 (29.26)	38 (92.68)	3 (7.31)	34 (82.92)	7 (17.07)
Term (n=109) (72.67%)	91 (83.48)	18 (16.51)	101 (92.66)	8 (7.33)	30 (27.52)	79 (72.47)
Parity (n=150)						
Primipara (n=69) (46%)	58 (84.05)	11 (15.94)	61 (88.4)	8 (11.59)	23 (33.33)	46 (66.66)
Multipara (n=81) (54%)	62 (76.54)	19 (23.45)	78 (96.29)	3 (3.7)	41 (50.61)	40 (49.38)

Table 4: Assessment of breastfeeding practice (continued).

Variables	No. of feedings per day (n=150)		Breastfeeding initiation after delivery (n=150)		Duration of exclusive breastfeeding (n=150)	
	> 8 times (n=99) (66%)	< 8 times (n=51) (34%)	< 1 hour (n=85) (56.67%)	> 1 hour (n=65) (43.33%)	6 months (n=82) (54.67%)	< 6 months (n=68) (45.33%)
Sociodemographic profile						
Age group (years) (n = 150)						
18-26 (n=91) (60.67%)	56 (61.53)	35 (38.46)	59 (64.83)	32 (35.16)	43 (47.25)	48 (52.74)
27-35 (n=48) (32%)	36 (75)	12 (25)	25 (52.08)	23 (47.91)	32 (66.66)	16 (33.33)
36-44 (n=11) (7.33%)	7 (63.63)	4 (36.36)	1 (9.09)	10 (90.9)	7 (63.63)	4 (36.36)
>45 (n=0) (0%)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Religion (n=150)						
Hindu (n=79) (52.67%)	60 (75.94)	19 (24.05)	45 (56.96)	34 (43.03)	47 (59.49)	32 (40.5)
Muslim (n=68) (45.33%)	37 (54.41)	31 (45.58)	37 (54.41)	31 (45.58)	33 (48.52)	35 (51.47)
Christian (n=3) (2%)	2 (66.66)	1 (33.33)	3 (100)	0 (0)	2 (66.66)	1 (33.33)
Level of Education (n=150)						
Illiterate (n=4) (2.67%)	1 (25)	3 (75)	1 (25)	3 (75)	0 (0)	4 (100)
Primary (n=29) (19.33%)	10 (34.48)	19 (65.51)	12 (41.37)	17 (58.62)	7 (24.13)	22 (75.86)
Secondary (n=42) (28%)	33 (78.57)	9 (21.42)	22 (52.38)	20 (47.61)	17 (40.47)	25 (59.52)
Higher Secondary (n=61) (40.67%)	45 (73.77)	16 (26.22)	40 (65.57)	21 (34.42)	44 (72.13)	17 (27.86)
Graduate (n=12) 8%)	8 (66.66)	4 (33.33)	8 (66.66)	4 (33.33)	12 (100)	0 (0)
Post-Graduate (n=2) (1.33%)	2 (100)	0 (0)	2 (100)	0 (0)	2 (100)	0 (0)
Employment Status (n=150)						
Employed (n=28) (18.67%)	17 (60.71)	11 (39.28)	19 (67.85)	9 (32.14)	24 (85.71)	4 (14.28)
Not Employed (n=122) (81.33%)	82 (67.21)	40 (32.78)	66 (54.09)	56 (45.9)	58 (47.54)	64 (52.45)
Employment Sector (n=28)						
Public sector (n=13) (46.43%)	8 (61.53)	5 (38.46)	6 (46.15)	7 (53.84)	11 (84.61)	2 (15.38)
Private sector (n=15) (53.57%)	9 (60)	6 (40)	13 (86.66)	2 (13.33)	13 (86.66)	2 (13.33)
Family type (n=150)						
Nuclear (n=76) (50.67%)	44 (57.89)	32 (42.1)	52 (68.42)	24 (31.57)	44 (57.89)	32 (42.1)
Joint (n=74) (49.33%)	55 (74.32)	19 (25.67)	33 (44.59)	41 (55.4)	38 (51.35)	36 (48.64)

Continued.

Variables	No. of feedings per day (n=150)		Breastfeeding initiation after delivery (n=150)		Duration of exclusive breastfeeding (n=150)	
	> 8 times (n=99) (66%)	< 8 times (n=51) (34%)	< 1 hour (n=85) (56.67%)	> 1 hour (n=65) (43.33%)	6 months (n=82) (54.67%)	< 6 months (n=68) (45.33%)
Monthly per capita income (n=150)						
<₹ 1500 (n=32) (21.33%)	8 (25)	24 (75)	22 (68.75)	10 (31.25)	17 (53.12)	15 (46.87)
₹ 1501-₹ 3000 (n=70) (46.67%)	54 (77.14)	16 (22.85)	36 (51.42)	34 (48.57)	23 (32.85)	47 (67.14)
₹ 3001-₹ 4500 (n=32) (21.33%)	24 (75)	8 (25)	15 (46.87)	17 (53.12)	28 (87.5)	4 (12.5)
>₹ 4500 (n=16) (10.67%)	13 (81.25)	3 (18.75)	12 (75)	4 (25)	14 (87.5)	2 (12.5)
Obstetric history						
Mode of Delivery (n=150)						
Vaginal/Normal Delivery (n=93) (62%)	59 (63.44)	34 (36.55)	64 (68.81)	29 (31.18)	58 (62.36)	35 (37.63)
Caesarean section (n=57) (38%)	40 (70.17)	17 (29.82)	21 (36.84)	36 (63.15)	24 (42.1)	33 (57.89)
Gestational age at birth (n=150)						
Pre-term (n=41) (27.33%)	28 (68.29)	13 (31.7)	20 (48.78)	21 (51.21)	14 (34.14)	27 (65.85)
Term (n=109) (72.67%)	71 (65.13)	38 (34.86)	65 (59.63)	44 (40.36)	68 (62.38)	41 (37.61)
Parity (n=150)						
Primipara (n=69) (46%)	35 (50.72)	34 (49.27)	49 (71.01)	20 (28.98)	34 (49.27)	35 (50.72)
Multipara (n=81) (54%)	64 (79.01)	17 (20.98)	36 (44.44)	45 (55.55)	48 (59.25)	33 (40.74)

DISCUSSION

This study assessed the knowledge, attitude and practice of breastfeeding among 150 mothers getting delivered at a tertiary care teaching hospital in Ahmedabad. It was found that majority participants (60.67%) were in the age group of 18-26 years. Maximum (52.67%) mothers were Hindu while Muslim and Christian mothers constituted 45.33% and 2% respectively. Vaginal delivery was the mode of childbirth in majority (62%) of study participants.

This study reported that 85.33% of the mothers were aware of the importance of breastfeeding. This is higher than a study conducted by Omeumu et al among working mothers in Nigeria which reported that 76.7% of the participants had good knowledge of breastfeeding.⁹ This might be due to the variance in the sociodemographic profile of both the samples. In this study, a majority of women (39%) identified medical staff as their primary source of breastfeeding information. This contrasts with the findings of Mohapatra et al, where most women (36.4%) cited their mothers as the main source of information.¹⁰ A probable reason for this could be the absence of proper breastfeeding information and counselling services provided at the urban health and training centers of Bhubaneswar. In the present study, 56% of mothers were aware of the benefits of colostrum, which is higher than a similar study conducted in Odisha, where only 40.21% of

mothers recognized its importance.¹¹ However, this is considerably lower than the findings of Tiwari et al, where 90% of mothers were knowledgeable about the benefits of colostrum.¹² This study found that only 9 out of 150 mothers were familiar with the MAA initiative that was introduced by Government of India to promote breastfeeding practices. Out of which 4 were educated till high secondary, 4 were graduates while 1 was a postgraduate.

This highlights the need for immediate efforts to raise awareness about such programs specially in the illiterate classes of the community. Intriguingly it was found that 6.67% mothers had a fear of their body image getting altered due to breastfeeding among which 80% mothers were in the age group of 18-26 years. Hence this indicates that young women are more conscious about their body image. This study even found that 4% mothers were worried that medications may adversely affect breastfeeding. This is significantly lower than the findings of a study conducted in the UAE, where 41.8% of mothers believed that breastfeeding should be discontinued while taking medications.¹³ According to Infant and Young Child Feeding (IYCF - 2004) guidelines, as per Government of India recommendation, breastfeeding should be initiated immediately after birth, preferably within one hour.¹⁴ However only 56.6% mothers in this study, initiated breastfeeding within 1 hour of delivery. In

contrast to this, breastfeeding within 1 hour was notably lower in studies by Kumar et al and Chatterjee et al, where it was found out to be 6.3% and 14.54% respectively.^{15,16} According to WHO guidelines, all women must give colostrum to their newborns in the absence of absolute contraindications.¹⁷ In our study, an impressive 92.66% of mothers adhered to this recommendation. The practice of giving colostrum has shown improvement over the past five years when compared to a study conducted in 2020 in a similar setting, where 76.67% of women fed colostrum to their newborns.¹⁸ This could be attributed to improvements in healthcare services that have enhanced community awareness about breastfeeding and its various aspects. This study revealed that 78.8% of mothers who were either illiterate or had only primary education introduced complementary feeds before 6 months of age while only 35.9% of literate mothers did the same. This emphasizes the significant role education plays in encouraging the ideal practice of exclusive breastfeeding.

The primary limitations of this study include its single-institution setting and the relatively small sample size. Hence the findings of this study cannot be extrapolated to the larger population and additional studies are required to comprehensively evaluate breastfeeding practices in western India.

CONCLUSION

This study identified a notable level of understanding among participants concerning the positive impacts of breastfeeding. Though a substantial proportion of mothers gave colostrum to the newborn, a gap in knowledge concerning the benefits of colostrum was evident in the study findings. Awareness of the Mothers' Absolute Affection (MAA) programme initiated by the Government of India was limited to a few participants in the study. Complementary feeding was initiated earlier than the advised guidelines by a considerable number of participants. Despite recommendations, early initiation of breastfeeding within one hour of birth was not practiced by all participants. In light of these findings, it is imperative to design and implement effective promotive strategies along with structured health education to enhance awareness regarding the importance and necessity of breastfeeding that may eventually lead to improved breastfeeding practices and better community health.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. World Health Organisation. Breastfeeding - a healthy start to life. Available at: <https://www.who.int>. Accessed on 5 April 2025.
2. UNICEF. Breastfeeding: The Best Possible Start in Life. Available at: <https://www.unicef.org/india/stories/breastfeeding-best-possible-start-life>. Accessed on 5 April 2025.
3. NHS. Benefits of breastfeeding. Available at: <https://www.nhs.uk/conditions/baby/breastfeeding-and-bottle-feeding/breastfeeding/benefits/>. Accessed on 5 April 2025.
4. Schanler RJ, Johnston M, Landers S, Noble L. Breastfeeding and the Use of Human Milk. *Pediatrics*. 2012;129(3):827–41.
5. World Health Organisation. Infant and young child feeding. Available at: <https://www.who.int/en/news-room/fact-sheets/detail/infant-and-young-child-feeding>. Accessed on 5 April 2025.
6. Government of India, National family health survey-5 (NFHS-5)- India districts factsheet data. Available from: <https://www.data.gov.in/catalog/national-family-health>. Accessed on 5 April 2025.
7. UNICEF. Baby-Friendly Hospital Initiative. Available at: <https://www.unicef.org/documents/baby-friendly-hospital-initiative>. Accessed on 5 April 2025.
8. National Health Mission. Mothers absolute affection Programme. Available at: <https://nhm.gov.in>. Accessed on 5 April 2025.
9. Omuemu VO, Adamu SA. Assessment of breastfeeding knowledge and practices among working mothers in the federal capital territory Nigeria. *Int J Community Med Public Health*. 2018;6(1):20.
10. Mohapatra I, Roy A. Breastfeeding awareness and perception among antenatal mothers: A cross-sectional study in urban slum population of Bhubaneswar, Odisha. *J Edu Health Promotion*. 2018;7(1):60.
11. Maiti A, Sarangi L, Sahu SK, Mohanty SS. An assessment on breastfeeding and weaning practices in Odisha, India. *Am J Public Health Res*. 2015;3(4):49-52.
12. Tiwari V, Singh A. Knowledge, attitude and practice regarding breastfeeding in an urban area of Fazidabad district (UP). *Indian J Prev Soc Med*. 2007;38(1):18-22.
13. Al Ketbi MI, Al Noman S, Al Ali A, Darwish E, Al Fahim M, Rajah J. Knowledge, attitudes and practices of breastfeeding among women visiting primary healthcare clinics on the island of Abu Dhabi, United Arab Emirates. *Int Breastfeed J*. 2018;13(1):26.
14. Ministry of Women and Child Development, Government of India. National Guidelines on Infant and Young Child Feeding. Available at: <https://mohfw.gov.in/sites/default/files/National-Guidelines-on-Infant-and-Young-Child-Feeding.pdf>. Accessed on 5 April 2025.
15. Kumar D, Agarwal N, Swami HM. Socio-demographic correlates of breast-feeding in urban slums of Chandigarh. *Indian J Med Sci*. 2006;60(11):461–6.
16. Chatterjee S, Saha S. A study on knowledge and practice of mothers regarding infant feeding and nutritional status of under-five children attending

immunisation clinic of a medical college. The Internet J Nutr Welln. 2007;5(1):65.

17. World Health Organisation. Early initiation of breastfeeding to promote exclusive breastfeeding. Available at: <https://www.who.int/tools/elena/interventions/early-breastfeeding>. Accessed on 5 April 2025.
18. Sanghvi AA, Pathak SD, Nanavaty DP, Mehta MS. Awareness of breast feeding practices amongst women visiting government hospital at Ahmedabad. *Int J Community Med Public Health*. 2020;7(10):3872.

Cite this article as: Shah O, Pandya M, Maheshwari A, Prajapati D, Sharma M. Assessment of breastfeeding knowledge, attitudes and practices among postpartum women at a tertiary healthcare setting in Ahmedabad, Gujarat: implications for maternal and child health. *Int J Reprod Contracept Obstet Gynecol* 2025;14:3403-11.