

Breastfeeding Awareness and Practice among Mothers in Ahmedabad

¹Snehal Rohitbhai Vegda; ²Dharti Bharat Kumar Chauhan;
³Margi Nimish Kumar Rana*

PharmD PB, Department of pharmacy, SAL institute of pharmacy
Gujrat Technological University (GTU), Ahmedabad, Gujrat, India*

Publication Date: 2025/04/02

Abstract: **Background:** Breastfeeding, recognized by healthcare professionals as the optimal feeding method for infants, plays a crucial role in promoting overall health. It provides essential nutrients, strengthens the mother-child bond, and supports healthy growth and development. Despite its known significance, breastfeeding practices remain inconsistent. **Objective:** The goal is to evaluate what mothers know, how they feel and what they do when it comes to breastfeeding. **Methods:** This retrospective observational study was conducted in Ahmedabad over six months, surveying 312 mothers using a awareness, and Practice questionnaire. **Results:** The findings revealed that while most mothers recognized the benefits of breastfeeding and understood the importance of starting early, their awareness about introducing complementary foods and continuing breastfeeding until the child turns two was relatively limited. Awareness of exclusive breastfeeding remained low. Regarding attitudes, some mothers had positive perceptions, but a significant portion believed breastfeeding should stop during diarrhea episodes. In terms of practices, many mothers breastfed at regular intervals, used kangaroo mother care, and provided breast milk as the first nutrient. **Conclusion:** Despite adequate awareness and positive attitudes, breastfeeding practices remain suboptimal. Educational campaigns should focus on promoting optimal breastfeeding behaviors. Strengthening healthcare counseling and tailored educational programs can help bridge the knowledge gap. Socioeconomic factors, particularly income and education, play a crucial role in child health. Policymakers should prioritize exclusive breastfeeding, provide support for mothers, and create enabling environments for better breastfeeding practices.

Keywords: Knowledge, Attitude, Practice, Breastfeeding, Mother.

How to Cite: Agwenyi C.A; Mbugua S.M (2025) Trends in Software Architecture Designs: Evolution and Current State. *International Journal of Innovative Science and Research Technology*, 10(3), 1772-1777.
<https://doi.org/10.38124/ijisrt/25mar1208>

I. INTRODUCTION

Breastfeeding, recognized by healthcare professionals as the optimal feeding method for infants, plays a crucial role in promoting overall health. offering essential nutrition, immune support, and superior digestibility compared to formula. The World Health Organization WHO and UNICEF emphasize its critical role in infant survival, brain development, and cognitive function⁽¹⁾⁽²⁾. Breastfeeding plays a vital role in protecting lives. As noted by the World Health Organization (WHO, 2016), it helps prevent around 20,000 deaths from breast cancer annually. Encouraging and improving breastfeeding practices could enhance these benefits even further. Exclusive breastfeeding (EBF)⁽³⁾ where infants consume only breast milk for their first six months, is a crucial public health measure. It not only lowers infant mortality but also protects against serious illnesses like pneumonia, diabetes, sudden infant death syndrome, and diarrhea. Mothers also gain significant health advantages, including a reduced risk of postpartum hemorrhage, breast and ovarian cancer, and postpartum depression, along with

support for postpartum weight loss. In low-income areas, where poor sanitation and limited clean water access increase health risks, EBF becomes even more essential for infant survival and overall well-being.⁽⁴⁾

Despite its proven benefits, exclusive breastfeeding is not universally practiced due to cultural, social, and economic barriers. Research highlights the importance of health education, support, and motivation in encouraging mothers to adopt EBF. Understanding maternal knowledge, attitudes, and social support systems is essential in improving breastfeeding practices. Strengthening these aspects can help reduce child mortality and enhance infant growth and immunity. This study aims to investigate breastfeeding mothers' knowledge, attitude, and willingness to practice exclusive breastfeeding.

II. METHODOLOGY

This study, which looks back and forward, took place in Ahmedabad over the course of an academic year from July to March, with the green light from the Institutional Ethics Committee (IEC) of SAL Hospital. The goal was to understand how aware mothers are, what they think, and how they act when it comes to breastfeeding.

We selected 312 participants based on specific criteria we set beforehand. To gather our data, we used a specially designed record sheet that was created after an extensive review of existing literature and validated by healthcare professionals. Data collection was conducted through face-to-face interviews and online distribution via Google Forms in Gujarati. Most responses were gathered through the online google forms, while some were collected via in-person interviews.

The statistical analysis was performed using Microsoft Excel 2019, focusing on descriptive analysis to identify trends in knowledge, attitude, and practices among breastfeeding mothers. The data was organized by age into these categories: 21–25 years, 26–30 years, and 31–40 years.

➤ Inclusion Criteria

- Lactating mothers with infants aged 0 to 6 months

- Mothers aged between 18 and 45 years.

➤ Exclusion Criteria

- Unwillingness to participate
- Presence of a psychiatric illness

➤ Need for the Study

Keeping a close eye on how aware mothers are about breastfeeding-What they think and how they behave-is really important for improving the health of both mothers and their children. While we know that breastfeeding is essential for overall well-being, there just isn't enough research on this subject in the Ahmedabad area.

III. RESULT

This study examines the socio-demographic characteristics of participants, including child age, family income, mother's age, and baby's birth and current weight. The majority of children were 6 months old (35.5%), and most families had a monthly income below ₹25,000 (52.5%). Mothers were predominantly aged 26–30 years (44.2%). At birth, most babies weighed between 2.5–3 kg (47.75%), and currently, 81% weigh between 4–8 kg. This data provides insights into factors influencing child health and development.

Table 1 Socio Demographic Characteristic of Participants

Variables	Description	N	%
Child Age (in month)	1 month	33	10.5
	2 month	31	9.93
	3 month	25	8.0
	4 month	45	14.42
	5 month	67	21.4
	6 month	111	35.5
Family income (in rupee)	Below 25 k	164	52.5
	Between 25-50K	134	42.9
	Above 50 k	14	4.4
Age of mother	<20	1	0.32
	21-25	131	41.9
	26-30	138	44.2
	31-40	42	13.4
Weight of baby at birth time	1kg-2kg	3	0.96
	2kg-2.5kg	90	28.84
	2.5kg-3kg	149	47.75
	3kg- 4kg	70	22.43
Weight of baby (current weight)	Under 2 kg	1	0.3
	2-4 kg	59	18.9
	4-8 kg	253	81.0

➤ Knowledge

The survey results highlight the participants' knowledge and practices regarding breastfeeding. Among the 312 respondents, a significant portion demonstrated awareness of key aspects of breastfeeding, though some gaps in knowledge were also evident.

- Starting Breastfeeding Within first Hour: A significant majority, about 68.6%, recognized how crucial it is to begin breastfeeding within that first hour after birth.
- Awareness of the Benefits of Breastfeeding: An impressive 92% of respondents were knowledgeable about the many advantages that breastfeeding offers.
- Knowledge of When to Start Breast Milk: Similar to the first point, 68.6% of participants knew the right time to start breastfeeding, but 31.4% were unsure.
- Awareness of Exclusive Breastfeeding and Its Importance: A smaller percentage (38.5%) were aware of the significance of exclusive breastfeeding, leaving 61.5% without this knowledge.

- Consumption of Nutritious Foods to Improve Breast Milk: A majority (79.8%) reported making efforts to consume nutritious foods to enhance the quality of their breast milk, while 20.2% did not engage in this practice.
- Knowledge of How Long to Continue Breastfeeding: Most participants (74.8%) knew the recommended duration for breastfeeding, but 25.2% lacked this knowledge.

Overall, while many participants demonstrated a good understanding of the basics of breastfeeding, there were notable gaps in areas such as exclusive breastfeeding awareness and the specifics of breastfeeding duration.

Table 2 Knowledge Question

Questions	Description	N= 312	%
Are you aware that initiating breastfeeding within the first hour after birth is highly beneficial?	Yes	214	68.6
	No	98	31.4
Do you know the benefits of breastfeeding?	Yes	287	92
	No	25	8
Do you know when to start breast milk?	Yes	214	68.6
	No	98	31.4
Are you aware of exclusive breastfeeding and its importance?	Yes	120	38.5
	No	192	61.5
Do you consume any nutritious foods to improve breast milk?	Yes	249	79.8
	No	63	20.2
Do you know how long to continue breastfeeding?	Yes	233	74.8
	No	79	25.2
What is the duration of breastfeeding?	Minimum 6 month	102	32.7
	Minimum 1 year	141	45.2
	Minimum 2 year	69	22.1
Which method do you prefer for breastfeeding?	Skin-skin	237	76
	Milk bottle	40	12.8
	Breast pump	23	7.4
	Other	12	3.8

➤ *Attitude:*

• *Breastfeeding up to 2 years:*

A large majority (76.9%) of participants support breastfeeding for up to two years, indicating strong backing for extended breastfeeding. However, 23.1% disagree, suggesting that some individuals believe it should not continue for this long.

• *Breastfeeding and mother-child bonding:*

Almost all respondents (99.4%) agree that breastfeeding enhances the bond between mother and child. This reflects a near-universal belief in the emotional benefits of breastfeeding, with only a small minority (0.6%) disagreeing.

• *Handling episodes of diarrhea in children:*

The vast majority (91.6%) recognize that continuing breastfeeding during a child's diarrhea episodes is important, highlighting good awareness of appropriate care. However, 8.3% believe changing the child's diet is better, which could suggest a gap in understanding the benefits of ongoing breastfeeding during illness.

• *Pre-lacteal feed versus breastfeeding:*

66.3% of respondents think pre-lacteal feeds are better than breastfeeding, pointing to a common misconception about the advantages of breastfeeding. On the other hand, 33.7% prefer breastfeeding as the first feeding choice, showing there is still support for it.

Table 3 Attitude Question

Questions	Description	N=312	%
Do you agree that breastfeeding should be continued up to 2 years?	Agree	240	76.9
	Disagree	72	23.1
Do you think breastfeeding can improve mother child bonding?	Agree	310	99.4
	Disagree	2	0.6
Do you know what to do when child has episodes of diarrhoea?	Stop breastfeeding	286	91.6
	Change in diet	26	8.3
Is pre lacteal feed better then breastfeeding?	Agree	207	66.3
	Disagree	105	33.7

➤ Practice

This survey explores various aspects of breastfeeding practices among 312 respondents. A majority (62.2%) of participants breastfeed at specific intervals, while 33.7% breastfeed on demand. Most (66.3%) agree to seek advice on breastfeeding practices, while 33.7% do not. The kangaroo breastfeeding method is followed by 52.9% of respondents, and personal hygiene for breastfeeding is highly prioritized, with 98.4% adhering to it. When it comes to the first nutrient given to infants, 51.9% of parents provided breast milk, followed by 39.4% who gave Janamgutti, 8% who gave plain water, and a very small percentage (0.6%) who provided another substance.

Table 4 Practice Question

Questions	Description	N=312	%
Frequency of breastfeeding	On demand	105	33.7
	At specific intervals	194	62.2
	random	13	4.2
Do you take any advice for breastfeeding practice?	Agree	207	66.3
	disagree	105	33.7
Do you follow kangaroo breastfeeding method?	Yes	165	52.9
	No	147	47.1
Do you follow personal hygiene for breastfeeding?	Yes	307	98.4
	No	5	1.6
What was the first nutrient given for the infant	Breast milk	162	51.9
	Janamgutti	123	39.4
	Plain water	25	8
	Other	2	0.6

IV. DISCUSSION

In this study, we took a closer look at what breastfeeding mothers know, how they feel about it, and the practices they follow.

➤ Knowledge:

Most mothers (92%) had good knowledge of breastfeeding (BF) benefits, aligning with the Techiman Municipality study Ghana(92%) but higher than the Gurage Zone study Ethiopia(69.8%)⁽⁵⁾⁽⁶⁾. However, only 68.6% were aware of the importance of initiating BF within the first hour, similar to studies in Kerala (68.3%) and Chennai (72.5%)⁽⁷⁾⁽⁸⁾. Only 22.1% of mothers knew that complementary foods should be introduced alongside BF for up to two years, as per WHO recommendations. This is like the Abu Dhabi study (33.9%) but significantly lower than Fiji (92.2%)⁽⁹⁾⁽¹⁰⁾. WHO also advises exclusive breastfeeding (EBF) for six months, yet only 38.5% of mothers in our study were aware of this. This is close to Kerala (44.1%) and Nigeria (50.7%)⁽⁷⁾⁽¹¹⁾. This indicates a gap in knowledge regarding proper infant nutrition, which needs to be addressed through educational programs.

➤ Attitude:

A positive attitude toward BF is linked to longer and more successful breastfeeding. However, only 33.7% of mothers had a favorable attitude, believing BF is better than pre-lacteal feeding. This is comparable to Ethiopia (20.6%) but lower than East Africa (81%)⁽¹²⁾⁽¹³⁾. 91.6% of mothers believed BF should stop during a child's diarrhea episode—much higher than Chennai (45%), Nigeria (32.2%)⁽⁸⁾⁽¹¹⁾. This contradicts WHO guidelines, which emphasize that continued BF prevents dehydration and reduces disease severity⁽¹⁾. Breastfeeding during illness helps maintain hydration and provides essential nutrients to aid recovery. Therefore, healthcare professionals should actively educate

mothers on this aspect to improve awareness.

➤ Practices:

WHO recommends breastfeeding on demand, but only 33.7% of mothers practiced it, while 62.2% followed scheduled feeding. Similar findings were reported in East Africa (41.4%), whereas Kenya had a higher rate (73.3%)⁽¹⁾⁽¹³⁾⁽¹⁴⁾. Though scheduled feeding may offer convenience, it does not fully align with WHO recommendations, as on-demand feeding better meets an infant's immediate nutritional needs and ensures proper growth⁽¹⁾.

Kangaroo Mother Care (KMC) was adopted by 52.9% of mothers, consistent with Ethiopia (54.49%), showing good awareness⁽¹²⁾. However, 47.1% did not use KMC, highlighting a need for further promotion through healthcare programs and counseling sessions.

Additionally, 51.9% of mothers provided breast milk as the first feed, a positive practice. However, 39.4% gave 'Janam gutty' (a herbal mixture), similar to Jammu (33.7%)⁽¹⁵⁾. WHO warns against this due to potential health risks such as infant botulism⁽¹⁾. Moreover, 8% of mothers gave plain water, a practice also noted in Jammu (8.4%), which can fill an infant's stomach and reduce breast milk intake, leading to nutritional deficiencies⁽¹⁵⁾.

V. CONCLUSION

The study reveals that while respondents had positive attitudes and good knowledge of breastfeeding, urban breastfeeding rates were low. This highlights the need for educational campaigns promoting good practices. Government and non-government organizations should focus on enhancing nursing habits, especially for metropolitan women. Breastfeeding is superior to complementary foods for a child's health, and financial stability influences child

well-being. A significant information gap exists in breastfeeding practices among mothers in underdeveloped nations like India. Effective counselling and educational programs targeting low-income and less-educated women can help promote healthy nursing habits. While participants were aware of the recommended breastfeeding duration, actual practices varied due to cultural and personal beliefs. This highlights the need for flexible health communication strategies that respect these influences while promoting optimal breastfeeding practices. A strong desire to breastfeed indicates awareness of its benefits. The study also highlights the importance of skin-to-skin contact, personal hygiene, and beliefs regarding infant diarrhea. Understanding these aspects is crucial to improving breastfeeding support and addressing challenges to ensure the best health outcomes for mothers and children.

VI. LIMITATION:

Our study included 312 patients, but findings may not be generalizable due to the sample size and restricted data collection period. It was an observational study, and a longer timeframe could have improved precision. Social desirability and self-selection biases may have affected responses. Language, literacy obstacles, and cultural influences could impact comprehension and participation. Additionally, some mothers' lack of interest and time constraints hindered proper involvement. These limitations highlight the need for broader, more inclusive research for better insights.

VII. FUTURE SCOPE

Future research should explore stratified analysis to examine relationships between age, BMI, comorbidities, and lifestyle choices in women, as well as the financial impact on maternal and child health. Personalized medical approaches should integrate patient-specific factors like age, illnesses, and awareness to assess long-term mother-child health outcomes. Longitudinal studies can track changes in breastfeeding practices and early interventions. Cross-cultural research may uncover universal and culturally specific breastfeeding influences. Technology's role in breastfeeding support through mobile health apps should be evaluated. Psychological research can explore emotional aspects, while machine learning-based interventions may enhance personalized nursing support for breastfeeding challenges.

ACKNOWLEDGMENT

Our friends are especially appreciated for their wise counsel and moral support, and we extend our gratitude to them. Especially deserving of praise are our parents, who have given us so much encouragement, perseverance, and prayers. Finally, we would like to express our gratitude to all those who directly or indirectly supported us in completing this research work.

“Thank you once again.”

➤ *Approval of Ethics and Consent to Participate*

This study was approved by the Institutional Ethics Commission in S.A.L. Before participating, all the mother gave their verbal consent.

➤ *Conflict of Interest*

The authors confirm that they have no competitive interests in this study.

➤ *Consent for Publication*

All the authors went through and approved the final version of this manuscript for publication.

REFERENCES

- [1]. World Health Organization. (n.d.). Infant and young child feeding. World Health Organization. Retrieved March 19, 2025, from <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>
- [2]. UNICEF. (n.d.). Breastfeeding. UNICEF. <https://www.unicef.org/topics/breastfeeding>
- [3]. Victora, C. G., Bahl, R., Barros, A. J. D., Franca, G. V. A., Horton, S., Krasevec, J., Murch, S., Sankar, M. J., Walker, N., & Rollins, N. C. (WHO 2016). Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect. *The Lancet*, 387(10017), 475–490. [https://doi.org/10.1016/S0140-6736\(15\)01024-7](https://doi.org/10.1016/S0140-6736(15)01024-7)
- [4]. UNICEF. (2015). From the first hour of life: Making the case for improved infant and young child feeding everywhere. United Nations Children's Fund. <https://www.unicef.org/media/49801/file/From-the-first-hour-of-life-ENG.pdf>
- [4]. Boateng, M. F. (2018). Knowledge, attitude and practice of exclusive breastfeeding among mothers in Techiman, Ghana (Master's thesis, University of Eastern Finland, Faculty of Health Sciences). Retrieved from <https://urn.fi/URN:NBN:fi:uef-20180869>
- [5]. Shitu, S., Adane, D., Abebe, H., Mose, A., Yeshaneh, A., Beyene, B., & Workye, H. (2021). Knowledge of breastfeeding practice and associated factors among fathers whose wife delivered in last one year in Gurage Zone, Ethiopia. *PloS one*, 16(7), e0254824. <https://doi.org/10.1371/journal.pone.0254824>
- [4]. Krishnendu M, Devaki G. Knowledge, Attitude and Practice Towards Breastfeeding Among Lactating Mothers in Rural Areas of Thrissur District of Kerala, India: A Cross-Sectional Study. *Biomed Pharmacol J* 2017;10(2).<https://dx.doi.org/10.13005/bpj/1156>
- [6]. Saravanan, K., Prasanth, B. K., Hariharan, S., Deepika, P., & Aishwarya, P. M. (2021). Knowledge, Attitude, and Behavior of Breastfeeding among Urban Women in Chennai—A Cross-Sectional Study. *International Journal of Medical Research & Health Sciences*, 10(9), 78-86. <https://doi.org/DOI>
- [7]. Al Ketbi, M.I., Al Noman, S., Al Ali, A. et al. Knowledge, attitudes, and practices of breastfeeding among women visiting primary healthcare clinics on the island of Abu Dhabi, United Arab Emirates. *Int Breastfeed J* 13, 26 (2018). <https://doi.org/10.1186/s13006-018-0165-x>

- [8]. Temoirokomalani M. D, Singh P, Khan S. Knowledge, Attitude and Practices of Breastfeeding Among Mothers of Children Under 6 Months of Age in Suva, Fiji. *Curr Res Nutr FoodSci* 2021;9(3)doi : <http://dx.doi.org/10.12944/CRNFSJ.9.3.27>
- [9]. Sabo A, Abba J, Sunusi Usman U, Musa Saulawa I, Alzoubi MM, Al-Mugheed K, Alsenany SA, and Farghaly Abdelaliem SM. (2023). Knowledge, attitude, and practice of exclusive breastfeeding among mothers of childbearing age. *Frontiers in Public Health*, 11, 1277813. <https://doi.org/10.3389/fpubh.2023.1277813>
- [10]. Tadele, N., Habta, F., Akmel, D. et al. Knowledge, attitude and practice towards exclusive breastfeeding among lactating mothers in Mizan Aman town, Southwestern Ethiopia: descriptive cross-sectional study. *Int Breastfeed J* 11, 3 (2016). <https://doi.org/10.1186/s13006-016-0062-0>
- [11]. Dukuzumuremyi, J.P.C., Acheampong, K., Abesig, J. et al. Knowledge, attitude, and practice of exclusive breastfeeding among mothers in East Africa: a systematic review. *Int Breastfeed J* 15, 70 (2020). <https://doi.org/10.1186/s13006-020-00313-9>
- [12]. Uusimäki, K., Schneider, L., Lubeka, C., Kimiweye, J., & Mutanen, M. (2023). Mothers' knowledge and practices on breastfeeding and complementary feeding in an urban slum area and rural area in Kenya: A cross-sectional interview study. *Journal of child health care : for professionals working with children in the hospital and community*, 27(4), 612–627. <https://doi.org/10.1177/13674935221083451>
- [13]. Bala, K., Sahni, B., Bavoria, S., & Narangyal, A. (2020). Knowledge, attitude, and breast-feeding practices of postnatal mothers in Jammu: A community hospital based cross sectional study. *Journal of family medicine and primary care*,9(7),34333437. https://doi.org/10.4103/jfmpc.jfmpc_333_20